United States Department of Agriculture

Forest Service Intermountain Region (R4)

FINAL ENVIRONMENTAL IMPACT STATEMENT

MIDDLE KYLE COMPLEX

Spring Mountains National Recreation Area | Humboldt Toiyabe National Forest

Clark County, Nevada

December 2009

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Final Environmental Impact Statement

MIDDLE KYLE COMPLEX

Spring Mountains National Recreation Area
Humboldt-Toiyabe National Forest
Clark County, Nevada

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Abstract: The Middle Kyle Complex Final Environmental Impact Statement discloses the effects of construction and operation of a recreation complex on approximately 4,300 acres in Kyle Canyon. Three alternatives have been analyzed in detail. Under Alternative 1 (No Action Alternative) current management decisions would continue to guide the recreation activities (dispersed and developed), existing Forest Service facilities, and operations in the canyon and permitted occupancies. Alternative 2 (Proposed Action) would construct and operate new recreational facilities including a visitor center, multiuse trails, picnic areas, and traditional Forest Service-style campgrounds, in addition to relocating Forest Service administrative facilities from the upper canyon area. Alternative 3 (Market Supported Alternative) would construct and operate a similar range of developed recreation facilities as proposed in Alternative 2, but the facilities would be constructed with a smaller capacity and include recreation facilities that were found to be supported by market analysis such as a commercial-style campground. Under Alternative 2 or 3, the Forest Service may also implement an administrative action that encompasses approximately 4,900 acres and extends outside of the Middle Kyle Complex project area. The administrative action would prohibit dispersed camping within 300 feet on either side of Forest Service roads and trails open to motorized vehicles, trailheads, county roads, and state highways within the Lee Canyon, Kyle Canyon, and Deer Creek areas of the SMNRA, including connecting and tributary Forest Service routes. The Forest Service's Preferred Alternative is Alternative 3 (Market Supported Alternative). The Record of Decision will identify the Selected Alternative with any modifications.

Preface

Introduction

The U.S. Department of Agriculture Forest Service (Forest Service) prepared the Middle Kyle Complex Final Environmental Impact Statement (FEIS) in compliance with the National Environmental Policy Act (NEPA) and other relevant federal and state laws and regulations.

This FEIS discloses the effects of construction and operation of a recreation complex on approximately 4,300 acres in Kyle Canyon located in the Humboldt-Toiyabe Forest, Spring Mountains National Recreation Area (SMNRA) in Clark County, Nevada. Three alternatives—the No Action Alternative, Proposed Action, and Market Supported Alternative—are analyzed in detail.

The Draft Environmental Impact Statement (DEIS) was released for public review and comment on October 2, 2009. Twenty comment letters were received during the 45-day comment period on the DEIS. The FEIS was developed in response to those public comments and incorporates revisions in response to public and agency comments.

The Forest Service's Preferred Alternative is Alternative 3 (Market Supported Alternative). The Record of Decision will identify the selected alternative with any modifications.

Administrative Review (Appeal) Opportunities

The Forest Service has formally established appeal processes that allow other agencies and the public to appeal a decision after publication of the FEIS. Accordingly, since the decision on the Middle Kyle Complex project is subject to administrative appeal under 36 Code of Federal Regulations (CFR) 215, the Forest Service is exempted from the timing rules at 40 CFR 1506.10(b)(2), and the decision can be made and recorded at the same time the FEIS is published. The Record of Decision and the legal notice of that decision explain the timing and the public's right to appeal.

The Record of Decision is subject to appeal pursuant to Forest Service regulations at 36 CFR 215. Appeals must meet the content requirements of 36 CFR 215.14. Only individuals or organizations who submitted comments or

otherwise expressed interest in the project during the comment period may appeal this decision. Appeals must be postmarked or received by the Appeal Deciding Officer, or Regional Forester, within 45 days of the publication of the notice of availability of the Record of Decision in the *Reno Gazette-Journal*, Reno, Nevada. This date is the exclusive means for calculating the time to file an appeal; timeframe information from other sources should not be relied on.

Appeals must be submitted to or via:

- Appeal Deciding Officer, Intermountain Region, USFS, 324 25th Street, Ogden, Utah, 84401. Appeals can be hand-delivered to this address during regular business hours of 8:00 a.m. to 4:30 p.m. Monday through Friday.
- Fax: 801-625-5277, or
- Email: appeals-intermtn-regional-office@fs.fed.us. Emailed appeals must be submitted in rich text format (rtf) or as a Microsoft Office® Word document (doc) and must include the project name in the subject line. An automated response will confirm your electronic appeal has been received.

The appeal must meet the content requirements of 36 CFR 215.14. It is the appellant's responsibility to provide sufficient project- or activity-specific evidence and rationale, focusing on the decision, to show why the decision should be reversed. At a minimum, an appeal must include the following:

- Appellant’s name and address, with a telephone number, if available;
- Signature, or other verification of authorship upon request (a scanned signature for electronic mail may be filed with the appeal);
- When multiple names are listed on an appeal, identification of the lead appellant and verification of the identity of the lead appellant upon request;
- The name of the project or activity for which the decision was made, the name and title of the Responsible Official, and the date of the decision;
- The regulation under which the appeal is being filed (36 CFR 215);
- Any specific change(s) in the decision that the appellant seeks and rationale for those changes;
- Any portion(s) of the decision with which the appellant disagrees, and explanation for the disagreement;
- Why the appellant believes the Responsible Official’s decision failed to consider the comments; and
- How the appellant believes the decision specifically violates law, regulation, or policy.

Revisions since the Draft Environmental Impact Statement

Changes, corrections, and clarifications have been made to DEIS based on public and agency comments and internal review. These revisions are summarized in Appendix D, *Summary of Revisions since the DEIS* of this FEIS. The majority of

the changes were made to improve the clarity and intent of the information. The changes reflected in the FEIS are within the scope and analysis of the DEIS and did not change the analysis of environmental consequences.

The DEIS is available in the project record at the SMNRA office in Las Vegas, Nevada. Appendix A, *Forest Service Responses to Scoping Comments*, of the DEIS will be posted on the Forest Service's Web site during the administrative appeal period.

Executive Summary

Background

Project Area

The Middle Kyle Complex is located in the Humboldt-Toiyabe National Forest within the Spring Mountains National Recreation Area (SMNRA). The project area is approximately 35 miles northwest of Las Vegas, Nevada and encompasses approximately 4,300 acres along Kyle Canyon Road (Nevada State Route [SR] 157). An additional area of approximately 4,900 acres located outside the project area is proposed to be closed to dispersed camping under an administrative action the Forest Service is considering as part of the Middle Kyle Complex project.

History of the Analysis

The U.S. Department of Agriculture Forest Service (Forest Service) conducted pre-National Environmental Policy Act (NEPA) public involvement during 2004 and 2005 to identify potential land use options and new opportunities for conservation, recreation, and environmental education. The result was the planning document titled *Middle Kyle Canyon Framework Plan*, dated August 2005. Based on feedback from the public, three options were narrowed to a preferred option. This preferred option was presented in the Notice of Intent (NOI) as the Proposed Action for evaluation under the NEPA process.

In February 2006, an NOI to prepare an environmental impact statement (EIS) was published in the *Federal Register* (FR). In April 2008, the Proposed Action was modified to include replacement of the existing water main from the Rainbow Subdivision water meter to Kyle Civilian Conservation Corps (CCC) Camp and reconstruction of the Kyle Canyon Campground. A scoping notice was distributed by mail and posted on the project Web site for this modification to the Proposed Action. The notice was mailed to individuals and agencies that provided comments or expressions of interest on the NOI, individuals that may be affected or interested in the project, and some additional stakeholders.

On October 2, 2009, the Notice of Availability (NOA) of the Middle Kyle Complex Draft EIS (DEIS) was published in the FR. The DEIS was posted on the project Web site and distributed to interested individuals, federal agencies,

federally recognized tribes, state and local governments, and organizations. The DEIS was available for public review and comment for a period of 45 days, beginning October 2, 2009, and ending on November 16, 2009. Appendix A, *Response to Public Comment,* of this EIS includes the comment letters received during the comment period and the Forest Service responses to those comments.

Purpose of and Need for Action

Three need-for-action statements were identified. The need-for-action statements are presented first, followed by the purpose of the action.

- There is a need to provide new SMNRA recreation facilities and visitor services that: a) respond to anticipated increased SMNRA recreation demands from population growth in Las Vegas and Clark County; b) respond to future types of public recreation activities and trends; c) direct recreation users to less congested areas of the SMNRA and into developed recreation sites; and d) are outside of upper Kyle, Lee, and Deer Creek Canyons to reduce natural resource impacts on major concentrations of plant and wildlife species of concern.
  - To provide a diverse range of additional recreation opportunities that are socially, financially, and environmentally sustainable to the extent practicable and will attract visitors away from the sensitive upper Kyle, Lee, and Deer Creek Canyons. To reduce visitor impacts on major concentrations of plant and wildlife species of concern by providing a comprehensive destination visitor facility near the entrance to the SMNRA that will be readily accessible to the maximum number of SMNRA visitors.
- There is a need for relocating Forest Service fire and administrative facilities outside upper Kyle Canyon.
  - To provide Forest Service fire and administrative facilities in a secure, accessible location that would be less visible to the public; provide adequate work facilities and room for expansion; improve communications between agencies; provide more employee housing; preserve sensitive species habitat; preserve the historic setting of the Kyle CCC Camp; enhance the visitor experience; and be readily accessible to the Kyle Canyon and Deer Creek areas of the SMNRA.
- There is a need for providing improved visitor information and environmental interpretation.
  - To provide a focused destination for visitors to the SMNRA with multiple opportunities for on-site environmental interpretation and information that promotes visitor understanding and appreciation through a variety of methods and reflects the Forest Service's unique identity.

Significant Issue

The Forest Service identified the following issue to be analyzed in detail.

Spring Mountains Acastus Checkerspot Butterfly (*Chlosyne acastus robusta*)

Construction and use of the proposed Kyle Canyon Wash Trail from the Village to Kyle Canyon Campground through Spring Mountains acastus checkerspot butterfly habitat may adversely impact this species (designated as Forest Service sensitive species, Clark County Multiple Species Habitat Conservation Plan [MSHCP] covered species, Conservation Agreement [CA] for the SMNRA species of concern, and SMNRA Landscape Analysis [LA] Tier 1 Special Status Species). The indicators used to compare between alternatives include the measure of permanent and temporary loss of Spring Mountains acastus checkerspot butterfly habitat (in acres). The potential loss of habitat is measured as the amount of known foraging and mate selection habitat within the project area that would be impacted temporarily (during construction) and permanently (during operations) due to the project. These indicators are tracked by analysis conducted for the evaluation of the alternatives.

Alternatives

The EIS considers three alternatives in detail: Alternative 1 (No Action Alternative) (current management), Alternative 2 (Proposed Action), and Alternative 3 (Market Supported Alternative).

Alternative 1 – No Action Alternative

The No Action Alternative represents the existing conditions in the Middle Kyle Complex project area (project area). Forest Service management presence in the project area would remain near current levels. Camping and picnicking would continue to occur at developed and dispersed sites within the project area. Hiking, mountain biking, snow play, and equestrian and off-highway vehicle (OHV) use would continue on limited designated routes and for the most part on user created routes. The Kyle Canyon Interim Visitor Center would continue as the primary source of visitor information. Existing Forest Service administrative facilities would remain in the same location and existing conditions in this area would persist. Forest Service permitted occupancies would remain in their existing locations. Permitted outfitter guide activities in the area would continue.

The 128-acre former golf course property would undergo limited restoration to a more natural state. The existing asphalt parking lot may be used as a fire command post.

Unauthorized activities, such as illegal dumping of trash, vandalism of cultural sites, and creation of unauthorized trails and roads would continue. Opportunities to reduce resource impacts in the upper canyon area and to improve environmental information, interpretative facilities, and the visitor experience in the SMNRA would remain the same. Recreation opportunities and facilities would be unchanged. Demand for recreational facilities, environmental interpretation, and information is anticipated to continue to increase as SMNRA visitation increases.

Alternative 2 – Proposed Action

The Forest Service would construct and operate new recreational and visitor facilities. The existing interim visitor center would be relocated outside of the project area. Non historic structures would be removed and the historic CCC structures renovated and managed for public use as a historic site. Additional public parking would be constructed at the Kyle CCC Camp and Fletcher Canyon Trailhead. The existing Kyle Canyon Campground would be reconstructed with upgraded restroom facilities and camp sites to meet Forest Service Outdoor Recreation Accessibility Guidelines to the extent practicable.

New visitor facilities would be constructed on the site of the former golf course property including a new visitor center with classrooms and a separate building with space for meeting rooms, retail shops and food vendors. Additional visitor amenities would include a plaza area, landscaped open space, amphitheater, outdoor classroom and additional parking (underground and surface). A biomass facility would heat and cool the visitor facilities.

Additional campgrounds and picnic areas would be constructed. The traditional Forest Service-style campgrounds would include recreational vehicle (RV) and tent sites. An equestrian campground is proposed as are large and small group campgrounds. New picnic sites would also accommodate large groups. A registration area with camp store and an RV dump station would be included.

Proposed recreational facilities and uses include trail systems throughout the project area along with new trailheads for hiking, biking, and equestrian use. New paved trails would be included and link the western project area to the eastern extent. An OHV trailhead would be constructed providing access to existing routes designated for motorized use outside of the project area. Equestrian and mountain bike rental buildings/concessions would also be constructed.

Forest Service administrative facilities would be relocated from the upper canyon area. Proposed facilities would include space for administration, warehouse, and maintenance. The same facility would provide space for an interagency fire facility including Nevada Department of Forestry (NDF) and Clark County Fire Department (CCFD) in addition to the Forest Service fire crews. The Las Vegas Metropolitan Police (Las Vegas Metro) facility would be relocated adjacent to the Forest Service administrative/interagency fire facility. Two helipads would be constructed as would Forest Service employee housing, concessionaire office

and research center. A biomass facility would heat and cool the administrative facilities.

Abandoned areas, the former golf course property, trails and roads would be restored according to the vegetation management and treatment plan. Unauthorized user created roads and trails would be closed and restored as would the designated motorized trails in the project area. National Forest System (NFS) roads and unpaved motorized routes[1] would be improved, paved, converted to non-motorized trails or closed and restored. SR 157 would be improved for safety and to facilitate traffic movement at the primary highway intersections. A portion of Harris Springs Road would be paved.

The Forest Service may also implement an administrative action that encompasses approximately 4,900 acres and extends outside of the project area. The administrative action would prohibit dispersed camping within 300 feet on either side of Forest Service roads and trails open to motorized vehicles, trailheads, county roads, and state highways within the Lee Canyon, Kyle Canyon, and Deer Creek areas of the SMNRA, including connecting and tributary Forest Service routes.

Alternative 3 – Market Supported Alternative

Under the Market Supported Alternative a similar range of developed recreation and visitor facilities as proposed in the Proposed Action would be implemented, but the facilities would be constructed with a smaller capacity and include recreation facilities that were found to be supported by market analysis. The primary exceptions that would or would not be implemented compared to the Proposed Action are described below.

Fletcher Canyon Trailhead on SR 157 would be relocated and additional public parking spaces would be built off the highway. New visitor facilities would be reduced in capacity with limited retail, a café and surface parking.

The Kyle Canyon Campground reconstruction would include camp cabins. New camping facilities would include a commercial style campground capable of accommodating Class A RVs and an individual RV/tent campground (traditional Forest Service style). The commercial-style campground would include camp cabins. Additional amenities may include a Laundromat, Frisbee golf, splash pad, multiuse playing fields, a playground and small amphitheater. Proposed picnic facilities would include one group site. An equestrian campground would not be implemented.

New visitor facilities may be constructed on both sides of SR 157 as the “main street” of the Village area. A roundabout or other traffic calming devices would be constructed to reduce highway traffic speeds through this area.

[1] The term “route” refers to both trails and roads, e.g., motorized routes would include both NFS roads and trails designated for motor vehicle use.

The equestrian and mountain bike rental buildings/concessions and the OHV trailhead would not be constructed. Harris Springs Road and the trailheads west of Harris Springs Road would not be paved. However, a trail bridge over the slot canyon would be built.

Forest Service administrative facilities would include separate buildings for the administrative office and warehouse, interagency fire facility (Forest Service, NDF, and CCFD) and interagency law enforcement facility (Forest Service, Las Vegas Metro and Nevada Highway Patrol). Other proposed facilities include one new helipad and a wildlife rehabilitation facility. Biomass facilities are not proposed at either the Forest Service administrative facilities or at the new visitor facilities.

Environmental Consequences

The comparison of alternatives draws together the conclusions from the information and discussion presented throughout this EIS and briefly summarizes the results of the analysis. The primary consequences of the alternatives are outlined in Table ES-1 below.

Forest Service's Preferred Alternative

The Forest Service's Preferred Alternative is Alternative 3 (Market Supported Alternative). The Record of Decision will identify the Selected Alternative with any modifications.

Table ES-1. Comparison of Alternatives Described in the EIS

	No Action Alternative	Proposed Action	Market Supported Alternative
RECREATION			
Quantity and Diversity of Recreation	This alternative provides visitors to the project area with the lowest quantity and diversity of recreation facilities. Picnicking would continue to occur in developed and dispersed areas. Kyle Canyon Campground would not be reconstructed. Fletcher Canyon Trail (1.6 miles) and trailhead would be maintained.	This alternative offers an increased diversity of recreation opportunities in developed settings with group picnic and campgrounds, an equestrian campground, OHV trailhead and 48 miles of non-motorized multi-use trails. Equestrian and mountain bike rental facilities would also be available.	This alternative offers a diverse range of developed recreation opportunities however the capacity of the facilities would be smaller. Facilities proposed include one group picnic site, no group campgrounds, camp cabins, a commercial campground capable of accommodating Class A RVs, no OHV trailhead and 44 miles of non-motorized multiuse trails. Rental facilities are not included.
	Dispersed camping would continue alongside roads and motorized trails.	The Forest Service may implement an administrative action that would prohibit dispersed camping within 300 feet on either side of Forest Service roads and trails open to motorized vehicles, trailheads, county roads, and state highways within the Lee Canyon, Kyle Canyon, and Deer Creek areas of the SMNRA, including connecting and tributary Forest Service routes such as those in the Macks Canyon and Harris Springs areas.	Same as the Proposed Action.
	Unauthorized trails and roads would remain undesignated and may be closed as necessary to reduce or prevent resource damage. Hunting and trapping would continue to occur in the project area, as permitted by Nevada Department of Wildlife (NDOW) and Nevada Revised Statutes (NRS). Recreational shooting of firearms (e.g., target practice) would continue to occur.	Opportunities for dispersed unmanaged recreation activities in undefined areas in the project area would be reduced. Much of that use would be redirected to the developed facilities proposed for construction, while some users would likely be displaced to other areas of the SMNRA. Shooting of firearms would also be redirected to other areas of the SMNRA as permitted by NDOW and NRS due to the prohibition on discharging firearms near developed recreation and Forest Service facilities. Hunting and trapping within the project area would continue as permitted by NDOW and the NRS and as allowed under 36 CFR 261Subpart A 261.10 (d)(1and 2).	Same as the Proposed Action.

	No Action Alternative	Proposed Action	Market Supported Alternative
Safety and Accessibility for Persons with Disabilities and the Elderly	Visitor safety and accessibility are compromised due to the unstructured nature of the recreation facilities and uses. Many of the existing facilities and services do not meet the standards set forth by the Forest Service Outdoor Recreation Accessibility Guidelines (FSORAG) or Forest Service Trail Accessibility Guidelines (FSTAG). There are no trails outside of the existing developed areas accessible to people with disabilities or the elderly.	Visitor safety and accessibility would be improved with defined structures, facilities, and uses. New recreation facilities would meet accessibility standards set forth by FSORAG and FSTAG. Existing facilities would be upgraded to the extent practicable to meet these same standards. Accessibility to recreation resources would be increased for a wide variety of skill and ability levels. Trails would be designed to meet the needs of different user groups including people with disabilities and the elderly.	Same as the Proposed Action.
	Passenger car access would continue to be limited to the existing developed sites and trails immediately accessible from the highway. Safety of existing unauthorized trail infrastructure is compromised due to the improvised nature of many of the facilities, lack of designated use areas, and limited information. Lack of trail use designations has led to unsafe conditions and user conflicts.	All newly developed recreation facilities would have high standard road access, allowing for safe travel by all types of passenger vehicles. Trails would be designated, designed, and managed for appropriate mixes or individual user groups to enhance safety. Conflict between non-motorized and motorized trail users would be limited. Trails and roads would be signed and designated uses clearly identified. Information kiosks with trail maps and mileages would be posted at trailheads.	Same as the Proposed Action.
Recreation Opportunity Spectrum (ROS)	The majority of the project area, accessed via SR 157 and SR 158, has been inventoried as Roaded Natural. Some outlying areas, including areas east of Telephone Canyon Road, fall within the Semi-primitive Motorized category. These classifications would remain under the No Action Alternative.	Implementation of the Proposed Action would expand the ROS spectrum to include the Rural and Urban classifications for the developed areas. The developed areas (Village, Valley and Northern Area) are located on land already disturbed by the abandoned golf course and located in an area where development is already present with the existing hotel and condominium. The remainder of the project area, would have less developed facilities (trails and trailheads) or no facilities, and would still provide a Roaded Natural recreation setting.	Same as the Proposed Action. However, the smaller size of the Village and the smaller facilities would make it feel less Urban, but it would still be a developed area. Conversely, the commercial-style campground would be more developed than the campground in the Proposed Action, but it would still generally fall within the Rural classification.

	No Action Alternative	Proposed Action	Market Supported Alternative
BIOLOGICAL RESOURCES			
General Biological Resources	The project area would continue to be used for dispersed recreation resulting in adverse impacts on individual plants and degradation of wildlife habitat.	Approximately 425 acres of permanent and approximately 653 acres of temporary construction disturbance would occur on wildlife and plant habitat.	Approximately 331 acres of permanent and approximately 579 acres of temporary construction disturbance would occur on wildlife and plant habitat.
Federally Listed Threatened, Endangered or Candidate Species	No effect.	No effect.	No effect.
Regional Forester's (R4) List of Sensitive Species for the Toiyabe National Forest	The project area would continue to be used for dispersed recreation resulting in adverse effects on individual plants and degradation of wildlife habitat.	May affect individuals of 8 species, but is not likely to cause a trend to federal listing or loss of viability.	Same as the Proposed Action
Conservation Agreement and MSHCP Covered Species	The project area would continue to be used for dispersed recreation resulting in adverse effects on individual plants and degradation of wildlife habitat.	The proposed project would adversely affect habitat of 19 species, but would not affect species viability. The proposed project would adversely affect individual plants and habitat of four species, but would not affect the species viability.	Same as the Proposed Action
Management Indicator Species of the SMNRA	The project area would continue to be used for dispersed recreation resulting in adverse effects on individual plants and degradation of wildlife habitat.	Not expected to adversely affect six species viability. Beneficial habitat changes could increase the population of three species.	Same as the Proposed Action
CULTURAL RESOURCES			
	Effects on historic properties would continue as they have in the past. Cultural resource sites located in areas where recreational use occurs would continue to be affected by trampling, soil erosion, vertical and horizontal artifact displacement, and artifact breakage. Vandalism, site disturbance and artifact collection would continue to occur as a result of the dispersed nature of recreation activities in the	Recommendations for National Register of Historic Places (NRHP) eligibility have been generated so that impacts on eligible sites could be assessed. Evaluation and assessment of effects on cultural resources with the Nevada State Historic Preservation Office (SHPO) and culturally affiliated tribes is ongoing and would continue through project implementation. The Kyle CCC Camp was previously determined eligible for the NRHP and four newly recorded sites have been recommended eligible for the NRHP.	Effects on cultural resources under this alternative would be similar to those of the Proposed Action. Slot Canyon trail bridge construction and the commercial-style campground were identified by the Nuwuvi Working Group as areas of high concern regarding impacts on the landscape. This alternative is anticipated to attract fewer visitors than the

	No Action Alternative	Proposed Action	Market Supported Alternative
	project area. The historic structures at the Kyle CCC Camp would remain in the same location and setting. Existing non-historic structures would remain in the same location and existing Forest Service functions in this area would continue.	Effects on cultural resources would result from construction of proposed facilities in the form of vertical and horizontal displacement and artifact breakage. Recreational activities may also result in trampling, breakage, vandalism, site disturbance and artifact collection and removal. Dispersed recreation in the project area would be reduced and effects on cultural resources associated with this type of use would also be reduced. This is a sacred landscape to Nuwuvi people. The proposed activities and development in general would not be culturally compatible in areas of Nuwuvi significance, and would have an adverse impact on the landscape. Under this alternative the historic structures located at the Kyle CCC Camp would be restored and maintained for managed public use as a historic site. Non-historic structures would be removed and the areas restored. The Forest Service and the Nevada SHPO have developed a Programmatic Agreement that will guide Section 106 of the National Historic Preservation Act (NHPA) consultation between the Forest Service, Nevada SHPO, and culturally affiliated tribes and culturally affiliated Nuwuvi nations throughout project design and construction. In addition, the agreement will guide the development of any cultural resource mitigation identified through the Section 106 consultation process.	Proposed Action and, therefore, operational impacts on cultural resources would be less.

	No Action Alternative	Proposed Action	Market Supported Alternative
VISUAL RESOURCES			
Effects on Inventoried Visual Quality Objective (VQO) Zones	For the most part there would be no change in existing Retention and Partial Retention VQOs. Lands within the project area fall within three inventory VQO classes: Preservation, Retention or Partial Retention. However, views of the former 128-acre golf course property would not achieve the Retention VQO and would be consistent with the Modification VQO. Restoration of the former gold course property would allow for a higher VQO to be met over time.	The effects on the visual character would be adverse because of the increased amount of apparent landscape alterations associated with the new recreation and administrative facilities. Proposed trail networks would negatively impact visual quality objectives on lands inventoried as Retention and Partial Retention. However, roads and trails (authorized and user created) already exist and reducing the width of existing roads and trails when converted to non-motorized trails would reduce the visual impact of these existing roads and trails. The majority of the development would occur within areas inventoried as Retention. Developed facilities such as the Village, Main Camping and Picnic Area, and the Northern Area could affect views from primary viewpoints or from SR 157. Therefore, the Retention VQO would not be met and the Modification VQO would be maintained.	The qualitative nature of the effects on the visual character would be the same as the Proposed Action except for: The wildlife rehabilitation center is located on land inventoried as Partial Retention. The visual effect of this facility would not exceed the thresholds set by the Partial Retention VQO. A general downsizing of recreation facilities would reduce the extent of the associated landscape alterations. The commercial campground would create a more intensively developed but cover smaller area than the campgrounds in the Proposed Action.
Effects on Natural Landscape Character	There would be no effect on the natural landscape character including the high desert shrublands, low conifer zone, or forest zone.	There would be no major changes to the overall natural landscape character in the project area. Localized effects on landscape character would be greatest in the low conifer zone, where the majority of the development would occur. Changes to existing landscape character in this zone would be evident from SR 157 and SR 158. The most obvious change would be the more developed nature of the Village area and other nearby facilities. While restoration and revegetation efforts would have a moderate beneficial effect on natural landscape character, the more urban character of the Village would be the most obvious change. Proposed facilities in high desert shrubland areas would be mostly trails, which would result in a negligible effect on the natural landscape character. Developments in the forest zone would also be minimal, with little or no effect on landscape character.	Same as the Proposed Action, with the exception that the denser, more developed character of the commercial campground would create a more urban zone than the traditional Forest Service-style campgrounds in the Proposed Action. The more urban character of the commercial campground would be most visible from the viewpoints along SR 158.

	No Action Alternative	Proposed Action	Market Supported Alternative
		The Forest Service acknowledges that all new construction would have a degree of impact on the American Indian experience of viewscapes and isolationism. In the design and construction phases of the Middle Kyle Complex, consultation will be conducted with culturally affiliated American Indian nations to ensure that these impacts are mitigated where and when feasible.	
COMPLIANCE WITH THE GENERAL MANAGEMENT PLAN (GMP) FOR THE SMNRA			
GMP Standard 0.31	No construction would occur within the 100-yard buffer zone of potential habitat for rough angelica in compliance with the GMP.	A project-specific amendment to the GMP would be required. Approximately 4 acres of permanent and approximately 17 acres of temporary construction disturbance would occur on potential rough angelica habitat.	Same as the Proposed Action, with the exception that an additional approximate 0.5 acre of potential rough angelica habitat would be disturbed on both a permanent and temporary basis.
GMP Guideline 11.71	The Harris Springs site would continue to be available for permitted designated group use, including blackpowder shooting and other uses in compliance with the GMP.	A project-specific amendment to the GMP would be required. Construction of recreation facilities at the Harris Springs site would not comply with Guideline 11.71. Construction of these facilities would eliminate use of this area for permitted designated group uses, including blackpowder shooting.	Same as the Proposed Action.

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Acronyms and Abbreviations

ACHP	Advisory Council on Historic Preservation
BLM	Bureau of Land Management
BMPs	best management practices
Business Plan	Spring Mountains National Recreation Area Market, Financial and Operational Analysis
CA	Conservation Agreement
CCC	Civilian Conservation Corps
CCDAQEM	Clark County Department of Air Quality and Environmental Management
CCFD	Clark County Fire Department
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CWA	Clean Water Act
DEIS	Draft Environmental Impact Statement
EIS	Environmental Impact Statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
Forest Service	U.S. Department of Agriculture Forest Service
FR	Federal Register
Framework Plan	Middle Kyle Canyon Framework Plan
FSM	Forest Service Manual
FSORAG	Forest Service Outdoor Recreation Accessibility Guidelines
FSTAG	Forest Service Trail Accessibility Guidelines
GHG	greenhouse gas
GMP	General Management Plan

IDT	Interdisciplinary Team
LA	Landscape Assessment
LEED	Leadership in Energy and Environmental Design
LID	low-impact development
LRMP	Land and Resource Management Plan
LVVWD	Las Vegas Valley Water District
Market Supported Alternative	Alternative 3
MBTA	Migratory Bird Treaty Act
MCWC	Mt. Charleston Water Company
Metro	Las Vegas Metropolitan Police Department
MIS	Management Indicator Species
MM	Mitigation Measure
MSHCP	Multiple Species Habitat Conservation Plan
MVUM	Motor Vehicle Use Map
NAAQS	National Ambient Air Quality Standards
NDEP	Nevada Division of Environmental Protection
NDF	Nevada Department of Forestry
NDOT	Nevada Department of Transportation
NDOW	Nevada Department of Wildlife
NEPA	National Environmental Policy Act
NFMA	National Forest Management Act
NFS	National Forest System
NHP	Nevada Highway Patrol
NHPA	National Historic Preservation Act
NNIS	non-native invasive species
No Action Alternative	Alternative 1
NO_2	nitrogen dioxide
NOI	Notice of Intent
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NRS	Nevada Revised Statutes
O_3	ozone
OHV	off-highway vehicle

PM_{10}	particulate matter smaller than 10 microns
$PM_{2.5}$	particulate matter with a diameter less than or equal to 2.5 microns
Proposed Action	Alternative 2
PwC	PricewaterhouseCoopers
ROS	recreation opportunity system
ROW	right-of-way
RRCNCA	Red Rock Canyon National Conservation Area
RV	recreational vehicle
SIP	State Implementation Plan
SMNRA	Spring Mountain National Recreation Area
SMNRA Act	Spring Mountains National Recreation Area Act of 1993
SNPLMA	Southern Nevada Public Land Management Act
SO_2	sulfur dioxide
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
US 95	U.S. Highway 95
USFWS	U.S. Fish and Wildlife Service
VOC	volatile organic compounds
VQOs	Visual Quality Objectives
WQMP	Water Quality Management Plan

Chapter 1
Purpose of and Need for Action

Typical vegetation community in lower Kyle Canyon area.

1.1 Document Structure

The U.S. Department of Agriculture Forest Service (Forest Service) has prepared this environmental impact statement (EIS) in compliance with the National Environmental Policy Act (NEPA) and other relevant federal and state laws and regulations. This EIS discloses the direct, indirect, and cumulative environmental impacts that would result from the proposed Middle Kyle Complex project (Proposed Action) and alternatives. The document is organized into the following five chapters.

- Chapter 1, *Purpose of and Need for Action*: The chapter includes information on the history of the action proposal, the purpose of and need for the Proposed Action, and the Forest Service's proposal for achieving the objectives identified. This section also details how the Forest Service informed the public of the proposal and discloses the significant and nonsignificant issues identified as a result of the public comments received

during the initial scoping period. The Middle Kyle Complex Draft EIS (DEIS) Appendix A, *Forest Service Responses to Scoping Comments*, includes those public comments identified as requiring a response from the Forest Service. Public comments received on the DEIS are included in Appendix A, *Response to Public Comment* of this Final EIS (FEIS).

- Chapter 2, *Alternatives, Including the Proposed Action*: This chapter provides a more detailed description of the Forest Service's Proposed Action as well as alternative methods for achieving the stated purpose. These alternatives were developed based on significant issues raised by the public and other agencies. This discussion includes design criteria and mitigation measures. Alternatives considered but eliminated from detailed study and the reasons why these alternatives were eliminated are also presented in this chapter. Finally, this section provides a summary table of the environmental consequences associated with each alternative.
- Chapter 3, *Affected Environment and Environmental Consequences*: This chapter describes the environmental effects of implementing the Proposed Action and other alternatives. This analysis is organized into sections based on the significant issues identified during the initial public scoping period after publication of the notice of intent (NOI) in the *Federal Register* (FR) and internal interdisciplinary team (IDT) discussions, as well as the effects analysis required by the Council on Environmental Quality's (CEQ's) NEPA regulations. This chapter also includes an essay prepared by the Nuwuvi Working Group describing the Nuwuvi relationship to the Spring Mountains landscape.
- Chapter 4, *Consultation and Coordination*: This chapter lists preparers and agencies consulted during the development of the EIS including the agencies, organizations, and persons receiving copies of the EIS.
- Chapter 5, *References*: This chapter contains references cited in this EIS.
- Acronyms and Abbreviations: This section lists acronyms, abbreviations, and terminology used in the EIS.
- Index: The index provides page references for topics discussed in the document.
- Appendices: The appendices provide more detailed information to support analyses presented in the EIS. These appendices include *Response to Public Comment, Detailed Comparison of Alternatives, Summary of Revisions since the Draft EIS,* and technical appendices.

Additional documentation, including more detailed analyses of resources in the project area, may be found in the project planning record located at the Spring Mountains National Recreation Area (SMNRA) District Office in Las Vegas, Nevada.

1.2 Background

The Spring Mountains are a unique collection of landscape types in the American Southwest. The range is an isolated "sky island," meaning that it is separated from other ecologically similar areas by large tracts of desert that act as barriers to migration. As a result of this physical disconnection, the area's plants and animals evolved in isolation and the range is home to many plant and animal species found nowhere else (Shapins Associates and AJC Architects 2007). The regional location of the SMNRA is shown on Figure 1-1 and the project vicinity is shown on Figure 1-2.

SR 157 as it enters the SMNRA. The Spring Mountains can be seen in the distance.

The rapid population growth of Clark County, Nevada, is exerting pressure on existing recreation facilities in the SMNRA. In July 2008, the population of Clark County was estimated at 1,986,146, of which the Las Vegas Valley urban area accounted for 96.5% of the population; by 2035, the population of Clark County is expected to increase to 3.6 million (Clark County Department of Comprehensive Planning 2008). The Forest Service anticipates the sustained Clark County population growth will result in continued demand for recreational opportunities within the SMNRA.

Management of the SMNRA is guided by several legislative mandates, land management plan direction, guidance documents, and relevant resource documents. Section 1.2.1 provides information on the Spring Mountains National Recreation Area Act of 1993 (SMNRA Act), which established the SMNRA, and the Southern Nevada Public Land Management Act of 1998, as

amended (SNPLMA), which provides funding for this Proposed Action. Section 1.2.2 provides information on land management plan direction described in the SMNRA General Management Plan (GMP). Section 1.2.3 identifies two agency guidance documents: the Clark County Multiple Species Habitat Conservation Plan (MSHCP) and the Conservation Agreement (CA) for the SMNRA. In addition, Section 1.2.4 provides information on the SMNRA Landscape Analysis (LA), a relevant resource document providing recommendations on species/habitat management strategies and actions. These documents set the management direction and guidance that balances recreation management on the SMNRA with the protection of associated biological resources.

1.2.1 Legislative Mandates

Spring Mountains National Recreation Area Act

The SMNRA was established in 1993 by a special act of Congress (Public Law 103-63) to serve three purposes:

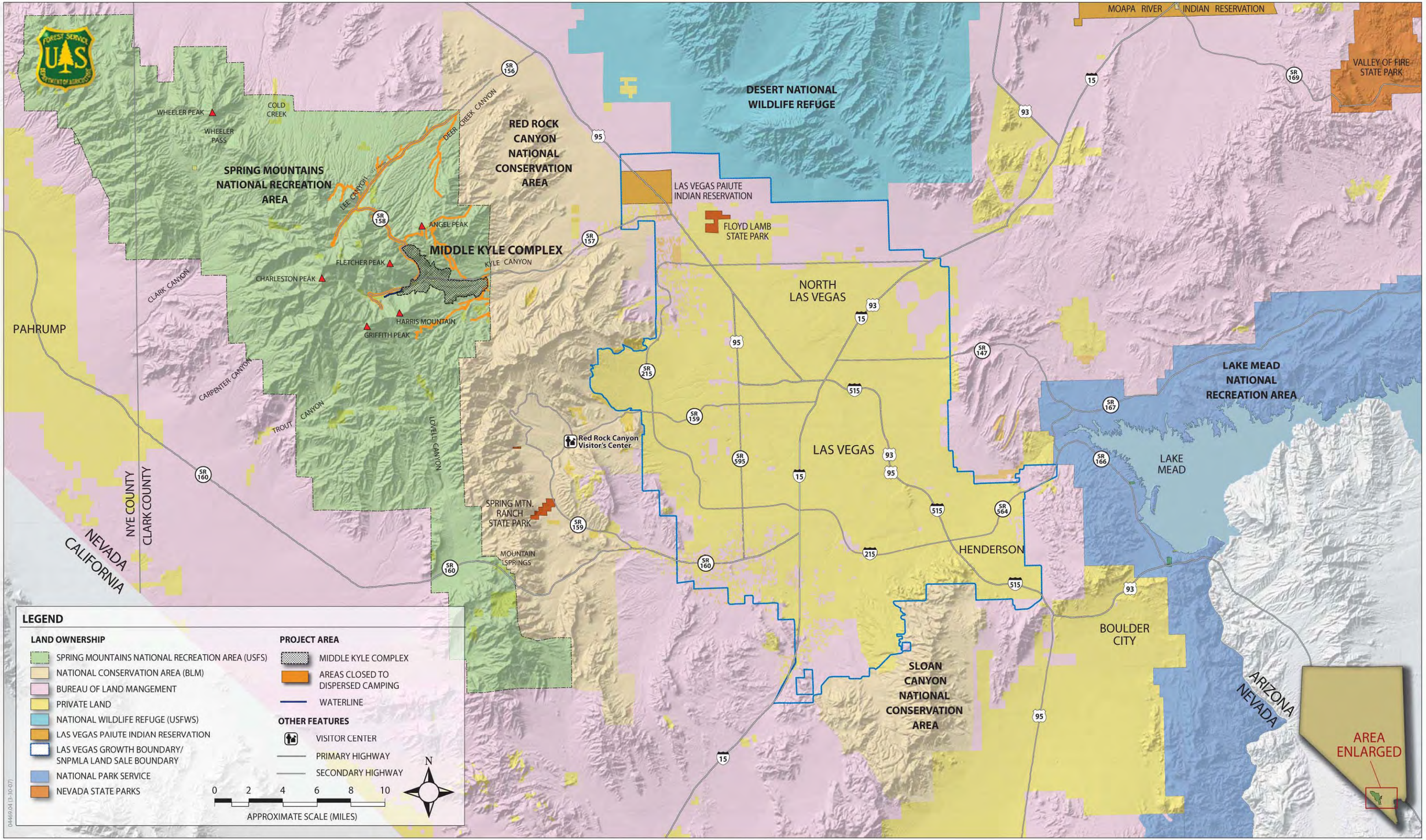
- To preserve scenic, scientific, historic, cultural, natural, wilderness, watershed, riparian, wildlife, threatened and endangered species, and other values contributing to public enjoyment and biological diversity in the Spring Mountains of Nevada;
- To ensure appropriate conservation and management of natural and recreation resources in the Spring Mountains; and
- To provide for the development of public recreation opportunities in the Spring Mountains for the enjoyment of present and future generations.

The act directed the Forest Service to prepare a GMP for the SMNRA as an amendment to the Toiyabe Forest Plan. The GMP for the Spring Mountains National Recreation Area, An Amendment to the Land and Resource Management Plan, Toiyabe National Forest was completed in 1996.

Southern Nevada Public Land Management Act

In 1998, the SNPLMA was signed into law as Public Law 105-263. The SNPLMA, as amended, allows the U.S. Department of the Interior Bureau of Land Management (BLM) to sell BLM-administered public land within a specific boundary around Las Vegas, Nevada. The SNPLMA land sale boundary is shown on Figure 1-1. The monies derived from the land sale are split between the State of Nevada General Education Fund (5%), the Southern Nevada Water Authority (10%), and a special account available to the Secretary of the Interior for:

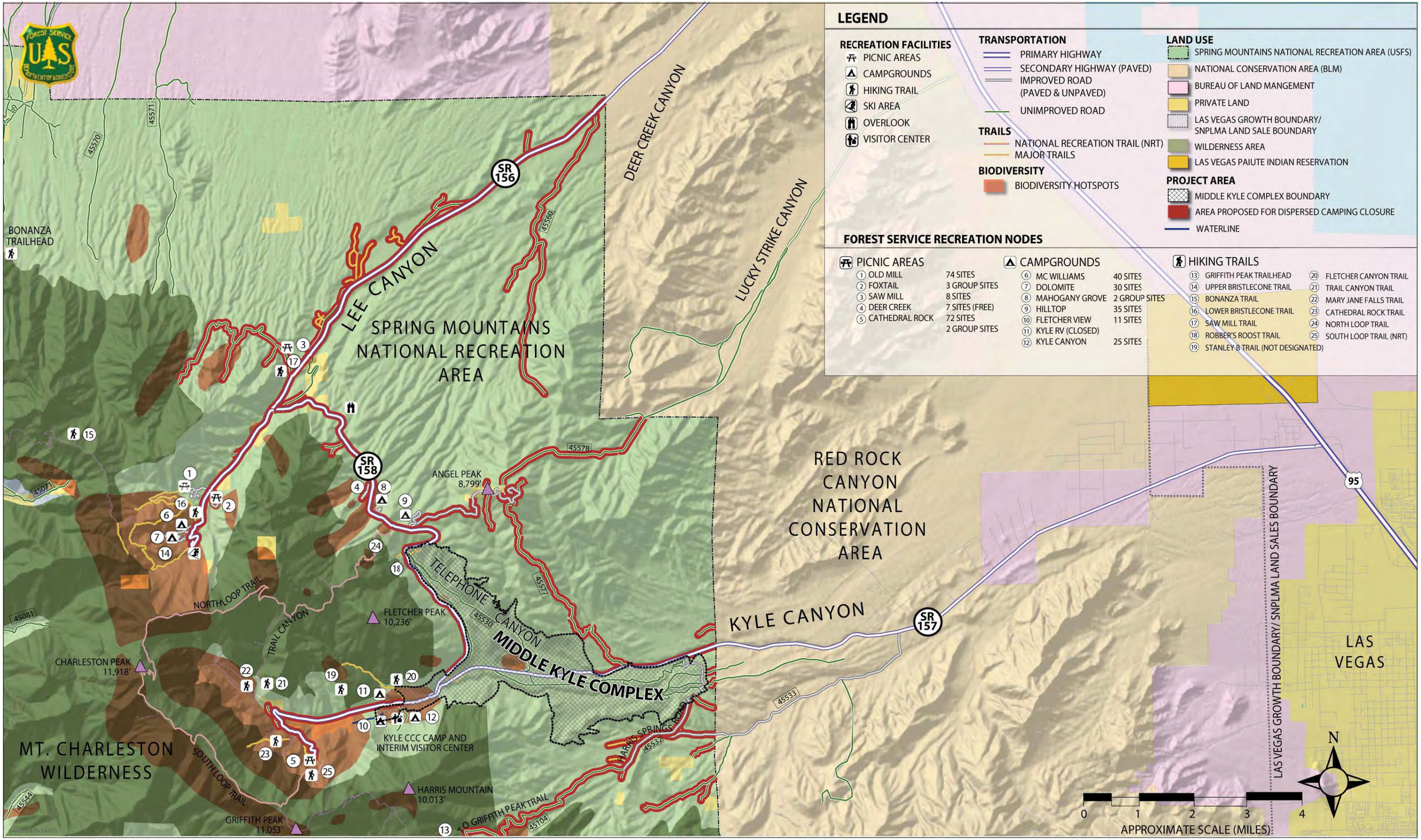
- Parks, trails, and natural areas;
- Capital improvements;
- Conservation initiatives;



MIDDLE KYLE COMPLEX

USDA FOREST SERVICE • SPRING MOUNTAINS NATIONAL RECREATION AREA

FIGURE 1 -1: REGIONAL LOCATION



MIDDLE KYLE COMPLEX

USDA FOREST SERVICE • SPRING MOUNTAINS NATIONAL RECREATION AREA

FIGURE 1 - 2 : PROJECT VICINITY

- Multispecies Habitat Conservation Program;
- Environmentally sensitive land acquisitions; and
- Lake Tahoe restoration projects.

Specifically, the SNPLMA allows for funds in the special account to be assigned by the Secretary of the Interior for capital improvements of old or inadequate infrastructures at specific locations including SMNRA. Additional information regarding the SNPLMA program can be found on the web at: http://www.blm.gov/nv/st/en/snplma.html (BLM 2009).

The SNPLMA does not mandate that the Forest Service must implement the Middle Kyle Complex project; however, it does provide a unique funding opportunity to move the SMNRA toward its Desired Future Condition.

1.2.2 Agency Direction Document

The following document provides guidelines for management of the SMNRA and development of the Proposed Action and alternatives.

General Management Plan for the Spring Mountains National Recreation Area

The SMNRA GMP supplements the Forest-wide Standards and Guidelines found in the existing Toiyabe Forest Plan and establishes the management direction to achieve the main purposes established under the SMNRA Act.

The GMP divides the Spring Mountains into four management areas. The Proposed Action is located within the SMNRA Management Area 11: Developed Canyons. The SMNRA-wide goals for the desired future condition for the SMNRA and Management Area 11 are to:

- Conserve the health, diversity, integrity, and beauty of the ecosystem;
- Protect American Indian cultural uses and cultural resources;
- Avoid disruptions to current uses and users of the Spring Mountains; and
- Provide additional opportunities for recreation, where consistent with the above.

These SMNRA-wide goals for the desired future condition provide protection for sensitive species and ecosystems without undue burden on the existing users of SMNRA. Provisions will be made for new recreation opportunities located away from the most sensitive areas in recognition of the increasing demand for recreation and other human uses and the concurrent need to protect sensitive species and habitats (Forest Service 1996).

A complete list of the Forest-wide Goals, Standards, and Guidelines with application to the SMNRA, the SMNRA-wide Standards and Guidelines, and those guidelines specific to Management Area 11: Developed Canyons are included in the SMNRA GMP. The GMP is available for review upon request at the SMNRA District Office in Las Vegas, Nevada.

Harris Peak looms above trail in Kyle Wash looking west from Slot Canyon

1.2.3 Agency Guidance Documents

The following documents provide guidelines for management of the SMNRA and development of the Proposed Action and alternatives.

Clark County Multiple Species Habitat Conservation Plan

In 2000, the Clark County MSHCP was completed to provide for conservation of a wide variety of species and their habitats throughout Clark County. The goal of the MSHCP is to allow expansion of the municipal areas within Clark County while providing for "the overall goal of no net unmitigated loss or fragmentation of habitat and to maintain stable or increasing populations of covered species." The CA and its species of concern are incorporated in the MSHCP as an

appendix (RECON 2000). Additional information regarding the Clark County MSHCP can be found on the web at: http://www.accessclarkcounty.com/depts/daqem/epd/dcp/Pages/dcp_mshcp.aspx.

Conservation Agreement for the Spring Mountains National Recreation Area, Clark and Nye Counties, Nevada

In 1998, representatives of the Forest Service, the U.S. Fish and Wildlife Service (USFWS), and the State of Nevada Department of Conservation and Natural Resources signed the CA to provide long-term protection of 57 species of concern. Accomplishing this purpose involves "consideration of conservation values through early project planning, in conjunction with an ongoing program of species, habitat and ecosystem inventory, monitoring, protection, restoration, research and education" (Forest Service, Intermountain Region et al. 1998). Successful implementation of the terms of the CA would result in no additional listings of species as threatened or endangered under the federal Endangered Species Act (ESA).

The CA establishes five guidelines based on an ecosystem management approach for conservation of the 57 species. These guidelines are meant to:

- Maintain viable populations of all native species in their natural habitats;
- Represent, with protected areas, all native ecosystem types across their natural range of variation;
- Maintain evolutionary and ecological processes (e.g., disturbance regimes, hydrological processes, nutrient cycles, etc.);
- Manage over periods of time long enough to maintain the evolutionary potential of species and the ecosystem; and
- Accommodate human use and occupancy within these constraints.

There are six project planning commitments and three major educational commitments. The six planning commitments are as follows.

- Maintain a philosophy of adaptive management in implementing the CA that provides the basis for changes and midcourse corrections as determined to ensure species viability and habitat protection;
- Develop new trails and encourage trail use outside of biodiversity hotspots to avoid further adverse effects on rare and sensitive species;
- Implement the principles of ecosystem management in the SMNRA;
- Conduct preactivity surveys for the species of concern prior to any actions that may affect them and design projects to minimize or avoid adverse effects. Ensure that surveys consider unique habitat components of the species of concern (e.g., mud and puddles for butterflies);

- Secure funding for projects involving inventory, monitoring, research, protection, restoration, and education in the SMNRA; and
- Secure funding for additional staff positions including a field ecologist, a biologist, a botanist, interpreters, visitor center personnel, a wilderness manager and rangers, dispersed recreation rangers, and law enforcement officers.

The three education commitments are listed below.

- Ensure SMNRA staff members are familiar with the basic habitat elements of the species of concern, including requirements of endemic butterflies (larval host plants, nectar sources, puddles and mud), bats (open water, caves, mines, cliffs, crevices, and other roost sites), Palmers chipmunk (shelter requirements), and rare plants (soil conditions and other requirements);
- Use all opportunities where the public is contacted (e.g., ranger stations, future visitor center and entrance stations, public meetings) to distribute materials emphasizing biodiversity protection and ecosystem management. Ensure that educational materials are focused on critical issues such as staying on trails, controlling pets, and avoidance of vegetation trampling and wildlife harassment; and
- Secure funding for education materials, including brochures, displays, driving programs, and school materials (Forest Service, Intermountain Region et al. 1998).

The CA and the MSHCP incorporate the concept of *biodiversity hotspots*. Biodiversity hotspots are defined as areas of any size with any number of ecologically significant elements sharing habitats in the same area. In 1994, The Nature Conservancy published a report stating both middle and upper Kyle Canyon contained such ecologically sensitive areas. In Kyle Canyon there are seven biodiversity hotspots totaling 3,170 acres; three of these biodiversity hotspots are included in the Middle Kyle Complex project area (see Figure 1-2). Significant elements of biodiversity hotspots include species of plants or animals that are:

- Listed as “threatened” or “endangered” under Section 7 of the ESA;
- Candidate species, which are species being considered by USFWS for listing under the ESA;
- Species restricted to or peculiar to a locality or region (endemic species);
- Species that are locally rare; and
- Unique communities of species, such as riparian streams and springs (The Nature Conservancy 1994).

The terms of the CA provide guidelines for management of the SMNRA in addition to those of the SMNRA GMP and Toiyabe Forest Plan. The CA expired in 2008 and is in the process of being amended. It is anticipated that the CA amendment will be completed in 2010 to incorporate findings and recommendations contained in the LA. The LA moves away from the concept of designated biodiversity hotspots with an emphasis on management of the

individual species. Initially the biodiversity hotspots were used as a tool to focus biological data collection, species and habitat monitoring, and project planning.

Over time, however, knowledge regarding species and unique communities has expanded, and the use of biodiversity hotspots as a management tool within the SMNRA has become less valuable. The Spring Mountains have long been recognized as "an island of endemism"; agency professionals and partners providing conservation management for the SMNRA have come to recognize that the majority of the SMNRA is simply a single large biodiversity hotspot based on the original definition provided by The Nature Conservancy.

Additional information regarding the CA can be found in Appendix G of the Clark County MSHCP on the web at: <http://www.accessclarkcounty.com/depts/daqem/epd/dcp/Pages/dcp_mshcp.aspx>.

1.2.4 Other Relevant Resource Documents

The following document provides additional guidelines and recommendations to be included in the development of the Proposed Action and alternatives.

Spring Mountains National Recreation Area Landscape Analysis

The LA was completed by the Forest Service in collaboration with the USFWS in August 2008. Representatives of Nevada Department of Wildlife, Nevada Natural Heritage Program, and Clark County Desert Conservation Program also provided data, reviewed documents, and added valuable insight and expertise to the final assessment.

The LA provides a synthesis of current and reference conditions through characterization of the physical, biological, and social aspects of a defined area, the SMNRA. The synthesis provides the context for identifying management strategies and actions. A focus of the assessment was to look at the relationship between recreation management, species/habitat protection, and species viability. The final step in preparation of the LA identified the findings from the synthesis and developed management recommendations. A few of the more significant recommendations are listed below.

- Refine the list of special status species for the SMNRA. The analysis indicated that some species are more imperiled and require more attention, while other species are more secure and/or more broadly distributed than previously thought. The recommendation is to group species into three categories:
  - Species to include in the revised CA;
  - Species protected through existing laws and regulations; and
  - Species to be dropped from the special status list.

- Develop vegetation management, renovation, and operation and maintenance plans for the recreational sites that specifically address special status species and enhance resources.
- Use integrated resource planning and focus on a strategic landscape perspective for vegetation treatment and prescriptions in areas where fire suppression will continue. Through monitoring of various treatments, determine which species benefit from vegetation treatments and which prefer late seral habitats.
- Develop, operate, and maintain the combination of recreation services, facilities, and opportunities recommended in the SMNRA Market, Financial and Operational Analysis.
- Use the Adaptive Management Guidelines for Recreation from the Southern California Forests Plan to resolve potential conflicts between recreation use and important species (Entrix 2008).

The LA findings and recommendations will be used to guide the future revisions of two significant documents; the CA and the GMP. Additional information regarding the LA can be found on the web at: <http://www.fs.fed.us/r4/htnf/districts/smnra/landscape_assess/index.shtml>.

1.3 Purpose and Need for Action

This section specifies the underlying purpose and need to which the Forest Service is responding in proposing the alternatives and Proposed Action (40 Code of Federal Regulations [CFR] 1502.13). 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 alternatives must satisfy.

The need for action statement is presented first, followed by a discussion of the existing conditions, desired conditions, and, ultimately, the purpose of the action. Three need-for-action statements were identified.

1.3.1 Need Statement 1

There is a need to provide new SMNRA recreation facilities and visitor services that a) respond to anticipated increased SMNRA recreation demands from population growth in Las Vegas and Clark County; b) respond to future types of public recreation activities and trends; c) direct recreation users to less congested areas of the SMNRA and into developed recreation sites; and d) are outside of upper Kyle, Lee, and Deer Creek Canyons to reduce natural resource impacts to major concentrations of plant and wildlife species of concern.

Fletcher View Campground, recently renovated in 2005

Existing Condition

Clark County, Nevada, (including the Las Vegas Valley area) has been considered one of the fastest growing urban areas in the United States. Recently, the population of Las Vegas has seen a slight decline; however, the county's population is expected to increase to 3.6 million by 2035 (Clark County Department of Comprehensive Planning 2008). Much of the recent growth is occurring in the northwest part of Clark County near the SMNRA. For example, a master plan for 16,000 new homes has been approved at the intersection of State Route (SR) 157 and U.S. Highway 95 (US 95). This development is currently on hold but it is anticipated that this area will eventually undergo residential development. Kyle, Lee, and Deer Creek Canyons serve as an urban park for valley residents and regional population growth is likely to increase demand for outdoor recreation and contribute to impacts on the federally managed lands that surround Las Vegas, especially the SMNRA. In fact, a study conducted for the Forest Service by PricewaterhouseCoopers (PwC) in 2008 revealed that the majority of SMNRA visitors are thought to be residents of the Las Vegas Valley.

The existing recreation facilities on the SMNRA were developed to match visitation rates of the 1960s and 1970s, and did not anticipate the increase in use that has occurred in recent years. According to one estimate, visitation to the SMNRA increased by an estimated 44% between 1991 and 2001 and by 2020 visitation is expected to increase to 3.9 million visitors (Hutton 2005). Although there is a general increase in visitors to the SMNRA, recent studies have shown that the SMNRA facilities are experiencing fluctuating levels of

visitation. During weekends and holidays, facilities are often above capacity; however, facilities are underutilized during other times. In particular, the Forest Service reports the Cathedral Rock Picnic area is consistently over capacity during peak visitation times. It is expected that existing facilities would be inadequate to meet future demands of the growing Clark County population including the Las Vegas Valley urban area. It is also reasonable to expect an increase in use levels when current plans to rebuild and improve Kyle and Lee Canyon campgrounds, picnic areas, toilets, and other facilities are completed.

The existing recreation facilities were designed with an emphasis on primitive camping and hiking experiences because these were traditionally provided by the Forest Service in the 1960s and 1970s. In contrast, present and projected future needs will require more day-use activities and transitional experiences from the urban to the wilderness environment. In public meetings held as part of the 2005 Middle Kyle Canyon Framework Plan development process, the public expressed its desire for the SMNRA to provide easy access, better directional information, a safe environment, and family-oriented day-use activities. Overall, demand figures show an increased need for camping facilities. Demand also increases for picnicking and trailhead facilities, including a demand for short looped hiking trails (1 to 5 miles in length) that are easy to moderate in the level of difficulty. The 2006 National Visitor Use Monitoring Surveys for the SMNRA found that hiking and viewing natural features were the most popular activities for visitors to the SMNRA (57% each), followed by relaxing (46%), viewing wildlife (43%), and driving for pleasure (41%) (Forest Service 2006a).

The demographics in Clark County continue to change. In 2005, Clark County's population was approximately 57% white; 26% Hispanic; 9% black; 7% Asian or Pacific Islander; and 1% American Indian, Eskimo, or Aleut. By 2020, it is projected that 50% will be white and 32% will be Hispanic, with little change in percentages for the other ethnicities (Clark County Department of Comprehensive Planning 2007). The ethnic composition of the population is important because the Forest Service hopes to create in the Middle Kyle Complex an area that is sufficiently appealing to attract users from a broad range of demographics and thereby create a socially sustainable site over the long term.

It is important to recognize that different ethnic communities appear to experience the outdoors and recreate in different ways. For instance, the Hispanic community often gathers at day-use areas in large groups of extended family members, while white user groups tend to gather in smaller groups and are more likely to participate in an overnight experience (PwC 2008). Culturally affiliated Nuwuvi nations and other American Indians continue to frequent the Spring Mountains landscape for spiritual reasons, to collect resources, and to recreate.

Predicted changes in demographics will, therefore, change the demand for specific recreational opportunities such as large group and family picnicking facilities. Currently, there are four picnic areas in SMNRA-developed canyons. However, they are located in congested areas within the upper canyon sensitive resource areas, and there are not enough picnic spaces to meet the current demand during the peak season. Forest Service personnel have observed visitors waiting in their vehicles for a picnic site to become available or leaving after

waiting an extended period to pursue alternate picnic sites in the general forest area. Picnicking and other recreational activities outside of designated facilities increase the risk of damage to sensitive resources.

There is also a growing demand for mountain biking opportunities, especially for families with children. Currently, mountain bikers have limited areas in which to ride, and unauthorized bike trails have been created by users east of SR 158 and north of SR 157.

Cathedral Rock Picnic Area in upper Kyle Canyon is heavily used.

Kyle Canyon is the most popular and frequently visited area in the Spring Mountains because Kyle Canyon Road (SR 157) is the nearest point of access to the SMNRA from Las Vegas. The majority of the existing SMNRA campgrounds, picnic areas, and administrative sites are concentrated in the upper Kyle and Lee Canyons because of cooler summer temperatures and the attraction of being in the stately ponderosa pine forest. Figure 1-2 shows the location of the Middle Kyle Complex in relation to the surrounding area. Similarly, there are private residential and commercial properties located in the upper canyons. As a result the upper canyons are congested; recreational use conflicts are high; and there is little opportunity for constructing new recreation facilities due to the limitations of the steep topography and sensitive species habitat that exists in the upper canyons. Residents of Mt. Charleston, a community of approximately 900 residents in upper Kyle Canyon, have reported instances of visitors picnicking and camping on private property (Forest Service 1996).

A family enjoys playing in winter snow in middle Kyle Canyon area.

The SMNRA supports more than 70 sensitive plant and animal species, the majority of which occur in the upper elevations of the Spring Mountains, including upper Kyle and Lee Canyons. The concentration of recreational use in the same locations as the sensitive species has resulted in damage to sensitive species by collection or removal of the species or by the loss of habitat through trampling; soil compaction; and disturbance.

Recreation facilities in Kyle Canyon include two campgrounds, the Kyle Canyon Interim Visitor Center, one picnic area, and four trailheads. Forest Service administrative facilities, residential areas, and the Mt. Charleston Lodge are also present in Kyle Canyon. In Deer Creek Canyon, recreation facilities include two campgrounds, one picnic area, an overlook, and two trailheads. Recreational facilities in Lee Canyon include two picnic areas, two campgrounds, two trailheads, a Clark County camp, a Girl Scout camp, a snow play area, and the Las Vegas Ski and Snowboard Resort.

Dispersed camping occurs throughout the Kyle, Deer Creek, and Lee Canyon areas of the SMNRA, typically within close proximity to existing roads. Repeated use of the same site eventually results in development of concentrated use areas with associated resource impacts including litter, trash, human waste, compacted soils, trampling of plants, damage to vegetation from firewood gathering, and unattended campfires. Several concentrated use areas with associated resource impacts have been inventoried in the Kyle, Deer Creek, and Lee Canyon areas.

Desired Condition

The GMP for the SMNRA describes the desired condition for recreation management on the east side of the SMNRA (Forest Service 1996). The following are the goals and objectives of the Forest Service.

- Limit new development in upper Kyle and Lee Canyons while distributing use and facilities to other areas of the SMNRA, including the lower canyons. A higher emphasis would be placed on protection of native species, ecological processes, and cultural resources, incorporating these considerations into the management of recreation areas.
- Provide additional recreation opportunities and customer service through development of trails, campgrounds and picnic areas, interpretive facilities, and approval of certain commercial developments and uses. These could include extension of existing facilities and uses, or entirely new developments. This goal would encourage new recreation opportunities where consistent with the goals of conserving the health, diversity, integrity, and beauty of the ecosystem; protecting American Indian cultural values and cultural resources; and maintaining current uses and users.
- Manage lands within the SMNRA to provide a range of developed recreation opportunities, with an emphasis on opportunities not available on private lands. Provide a range of recreational opportunities and facilities that are responsive to current and anticipated recreation trends based on changing user demographics and user expectations and that are consistent with resource protection goals.
- Provide additional multiuse recreation facilities in lower Kyle or Lee Canyons and allow new campgrounds and picnic areas to be developed in lower Kyle and Lee Canyons, east of SR 158.

This popular rock climbing area is opposite the Robbers Roost Trailhead on Deer Creek Canyon Road.

Fletcher Canyon Trailhead.

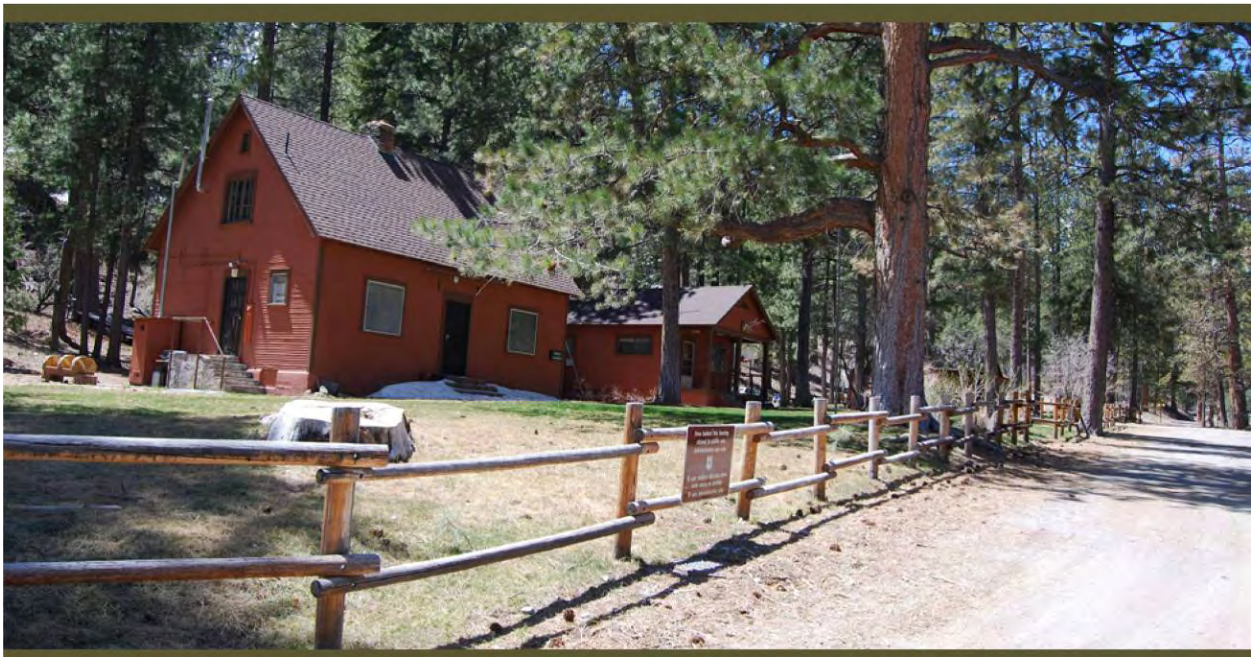
The CA includes an action item to “focus new recreation development (campgrounds, picnic areas, and other facilities) in the least sensitive areas at

lower elevations, to lessen visitor impacts on the species of concern and other sensitive ecological resources" (Forest Service 2003).

It is also desirable for the Forest Service to secure SNPLMA funding for the construction of new recreation facilities or refurbishing existing facilities to protect resources, enhance the visitor experience, and/or improve operations within the SMNRA. SNPLMA funding is available to provide opportunities on federal lands to improve the quality of life for the residents of Clark County, Nevada.

Specifically the Forest Service would develop new recreation facilities at lower elevations within Kyle Canyon to meet the current and future population demands and recreation trends for Las Vegas. The facilities would be environmentally, socially, and financially sustainable. They would help to alleviate congestion in the upper canyons by providing a quality experience for the visitor, thereby reducing the need for the visitor to venture into the upper canyons.

A diverse range of activities would be provided creating a destination experience that results in repeat visitation through changing, interesting activities, programs and places that use the natural environment to attract visitors. All people, including all ages, ethnicities, income levels, and abilities—both individually and in groups—would feel welcome, safe, and comfortable.



The Kyle CCC Camp was built in the 1930's and was determined eligible for listing in the National Register of Historic Places in 1998.

There would be connectivity with the surrounding area. A diversity of recreational uses and settings would provide a variety of experiences, from contemplative to social. Appropriate visitor limits would be in place to maintain healthy environments and the desired recreation experience. Newly constructed facilities would be visually appealing, of quality and durable construction,

consistent with the stated vision and principles contained in the 2007 SMNRA Built Environment Image Guide (Shapins Associates and AJC Architects 2007) and implemented in a manner that is environmentally responsible according to a recognized rating system, such as U.S. Green Building Council's Leadership in Energy and Environmental Design. New facilities would meet or exceed the Forest Service goals for sustainability. Proposed facilities would be designed and implemented in a manner that contributes to long-term economic sustainability.

Purpose

To provide a diverse range of additional recreation opportunities that are socially, financially, and environmentally sustainable to the extent practicable and will attract visitors away from the sensitive upper Kyle, Lee, and Deer Creek Canyons. To reduce visitor impacts to major concentrations of plant and wildlife species of concern by providing a comprehensive destination visitor facility near the entrance to the SMNRA that will be readily accessible to the maximum number of SMNRA visitors.

A socially sustainable site is defined as one that is dynamic and entertaining so that visitors will return again and again over a long period. Such a site will remain viable and connected to the social fabric of the community in a rapidly changing cultural and demographic setting (PwC 2008).

Financial sustainability means that, to the extent possible, the operations and maintenance costs for the SMNRA will be covered by non-appropriated Forest Service funding such as fees, partnerships, or other innovative funding mechanisms (PwC 2008).

According to the Forest Service, environmental sustainability requires any facilities built or services offered to be environmentally appropriate for the unique conditions present in the surrounding ecosystem and must sustain the health, diversity, and productivity of the area to meet the needs of present and future generations (Forest Service 2009a).

1.3.2 Need Statement 2

There is a need for relocating Forest Service fire and administrative facilities outside upper Kyle Canyon.

Existing Condition

The current Forest Service administrative facilities are located west of SR 158 at the Kyle Civilian Conservation Corps (CCC) Camp adjacent to and south of SR 157 (see Figure 1-2). The Kyle CCC Camp is also known as the Kyle Ranger Station and the Kyle administrative site. This document will refer to the existing administrative site as the Kyle CCC Camp. The Kyle CCC Camp is located

immediately adjacent to Fletcher View Campground on the west and Kyle Canyon Campground on the east. Also located here are the Kyle Canyon Interim Visitor Center, Forest Service employee housing, public restrooms, public parking for approximately 10 vehicles, and an outdoor storage area for Forest Service equipment and supplies. A Forest Service fire crew and engine operate out of this location. Seasonal recreation and resource crews also operate out of this facility. Employee office space is inadequate.

A chain-link fence surrounds the Nevada Department of Transportation maintenance facility off of SR 157.

Law enforcement responsibilities are shared among the Las Vegas Metro Police (Metro), the Nevada Highway Patrol (NHP), and the Forest Service.

The entrance to the Kyle CCC Camp is often congested on weekends due to increased weekend visitation, visitor use of the restrooms and visitor center, and limited parking available at the facility. Forest Service fire personnel have reported “near misses” with private vehicles when pulling the fire engines onto SR 157 during heavy traffic periods. The engines use the same egress and ingress lanes as visitors use to access the interim visitor center and restroom facilities. The Forest Service operation and maintenance activities and employee housing at this location are highly visible and accessible by the public. The current location of these activities conflicts with the visitor experience and Forest Service security for employees and facilities.

The Kyle CCC Camp was built in the 1930s and was determined eligible for listing in the National Register of Historic Places in 1998. Although the Kyle Canyon Interim Visitor Center (constructed in 2004) and the temporary employee housing (constructed in 2006) were designed to conform to the historic setting of the camp, these buildings were not part of the original facility layout or historic setting. Currently, the Forest Service does not provide interpretive information for visitors on the historic significance of the CCC structures.

Fire and law enforcement responsibilities in Kyle Canyon are multi-jurisdictional due to the presence of private properties within the National Forest boundary and because SR 157 is a Nevada Department of Transportation (NDOT) facility. Fire suppression responsibilities are shared among Clark County Fire Department (CCFD), Nevada Department of Forestry (NDF), and the Forest Service. The

existing CCFD and NDF facilities are located in the town of Mt. Charleston, in inadequately sized spaces with little room for expansion due to the same physical constraints as the Kyle CCC Camp (e.g., narrow canyon with limited suitable building areas).

Law enforcement responsibilities are shared among the Las Vegas Metropolitan Police Department (Metro), the Nevada Highway Patrol (NHP), and the Forest Service. Currently, each entity maintains its facility either within the SMNRA or in near proximity. The Metro office is located in a trailer facility near the NDOT facility under a special use permit from the Forest Service. The local area NHP office is located in a trailer near the community of Indian Springs, approximately 30 miles north of SR 157 on US 95.

Desired Condition

The Forest Service administrative activities and visitor service facilities would be located outside upper Kyle Canyon. Removal of non-historic structures and rehabilitation of unneeded use areas would restore habitat within the biologically sensitive upper Kyle Canyon area. Relocation of these facilities to the less sensitive lower elevations would continue to provide emergency response to the upper Kyle Canyon area.

The relocated facilities would be situated on relatively flat terrain that provides suitable space to accommodate facility needs—including a staging area for an incident command center in the event of emergencies—and would be in an area of lower fire risk with more than one exit in the event of a large incident. The visitor experience would be enhanced by the geographic separation of the administrative facilities and activities to an area that is not as visible or easily accessible by the recreating visitor. Safety would be improved for visitors, and the security of Forest Service administration operations would be enhanced by this separation. Overall, the relocated facilities would optimize the staff's ability to serve the public.

The GMP for the SMNRA provides direction to protect and preserve cultural resources while providing opportunities for interpretation and public education. The desired condition for the Kyle CCC Camp would be to preserve the historic nature and setting of the structures and manage as a historic site. Visitors would be afforded the opportunity to appropriately use and experience the site.

Collocation of the CCFD, NDF, NHP, and Las Vegas Metro with the Forest Service in the relocated administrative site is an opportunity that would result in more efficient coordination, responsiveness, and effectiveness of the public agencies in the SMNRA.

Purpose

To provide Forest Service fire and administrative facilities in a secure, accessible location that would be less visible to the public; provide adequate work facilities

and room for expansion; improve communications between agencies; provide more employee housing; preserve sensitive species habitat; preserve the historic setting of the Kyle CCC Camp; enhance the visitor experience; and be readily accessible to the Kyle Canyon and Deer Creek areas of the SMNRA.

Kyle Canyon Interim Visitor Center.

1.3.3 Need Statement 3

There is a need for providing improved visitor information and environmental interpretation.

Existing Condition

The small (approximately 800 square feet) interim visitor center was established in 2004 as a temporary facility until a larger and more comprehensive visitor center could be built. Operated by the Southern Nevada Interpretive Association, the interim visitor center includes a bookstore, recreational trail information, recreation brochures, and guided hikes. Currently, interpretation opportunities relative to the SMNRA biological and cultural resources are inadequate and limited to a few panels in and outside the center. Other sources of visitor information include the Forest Service web site and the SMNRA office in Las Vegas.

The current interim visitor center serves about 30,000 visitors per year, a fraction of the total estimated annual visitors to the SMNRA (PwC 2008). The size of the

visitor center and available parking limit the number of persons that the visitor center can serve at one time.

Visitor information is limited and not well coordinated between the Forest Service, its concessionaires, and local businesses. Many roads, trails, and trailheads are not well marked. As a result, many users become confused and frustrated about what recreation opportunities are available, where and how to access them, and the rules that apply to using them (Shapins Associates 2005).

Users who do not understand the natural environment of the SMNRA can unwittingly damage sensitive resources, and many users discard trash along trails and roadsides.

Jaeger ivesia, a Spring Mountains sensitive species.

Desired Conditions

The GMP for the SMNRA provides direction in several passages regarding public education and interpretation. The GMP states a desired condition for the SMNRA is to provide public information that emphasizes the range of opportunities available and to provide appropriate locations to direct visitation and disperse use. Also, public awareness of the unique environment of the SMNRA is increased, and knowledge of low-impact recreation skills is emphasized.

The GMP also provides the guidance to develop a SMNRA visitor center along the entrance to Kyle and/or Lee Canyons.

The CA provides a list of actions to be taken by the Forest Service to promote environmental education on the SMNRA. The intent of these actions is to inform the public about biodiversity protection and ecosystem management.

Specifically, an environmental interpretation and informational program would be established on the SMNRA to provide a broad range of opportunities for public enjoyment. The intent of the SMNRA Act would be met by implementing plans for a continued program of environmental interpretation and public information about the resources and values of the SMNRA. When visiting the SMNRA, the public would be knowledgeable of environmental conditions that could affect their recreational experience and would be appropriately prepared.

Environmental interpretation and information programs would be designed to reach the maximum number of visitors. Displays, presentations, guided walks, driving tours, and informational brochures would highlight the importance of cultural resources, the sensitivity of the species unique to the Spring Mountains, the importance of species diversity, the significance of the Spring Mountains' biodiversity, and appropriate low-impact visitor activities. Road and trail systems would be well marked on the ground.

Environmental information materials would direct user groups to utilize low-impact recreation techniques and emphasize resource protection. Such materials would be readily available at developed recreation areas, at trailheads, near sensitive habitats and select cultural sites, and at the entrance to wildernesses. Targeted user groups would include climbers, spelunkers, mountain bikers, equestrians, off-highway vehicle (OHV) users, hikers, and the general public.

Environmental interpretation programs would be fun, exciting, innovative, and dynamic and would influence all ages to be appreciative and respectful of the natural world. Wayfinding information and self-guided materials would be available 24 hours a day 7 days a week at a variety of locations. The information and interpretation would promote responsible behavior.

Purpose

To provide a focused destination for visitors to the SMNRA with multiple opportunities for on-site environmental interpretation and information that promotes visitor understanding and appreciation through a variety of methods and reflects the Forest Service's unique identity.

1.4 Proposed Action

The Forest Service is proposing the action, which includes the construction and operation of the facilities described below and shown on Figure 1-3. This Proposed Action responds to the goals and objectives outlined in the SMNRA GMP, an amendment to the Toiyabe Forest Plan, and helps move the project area

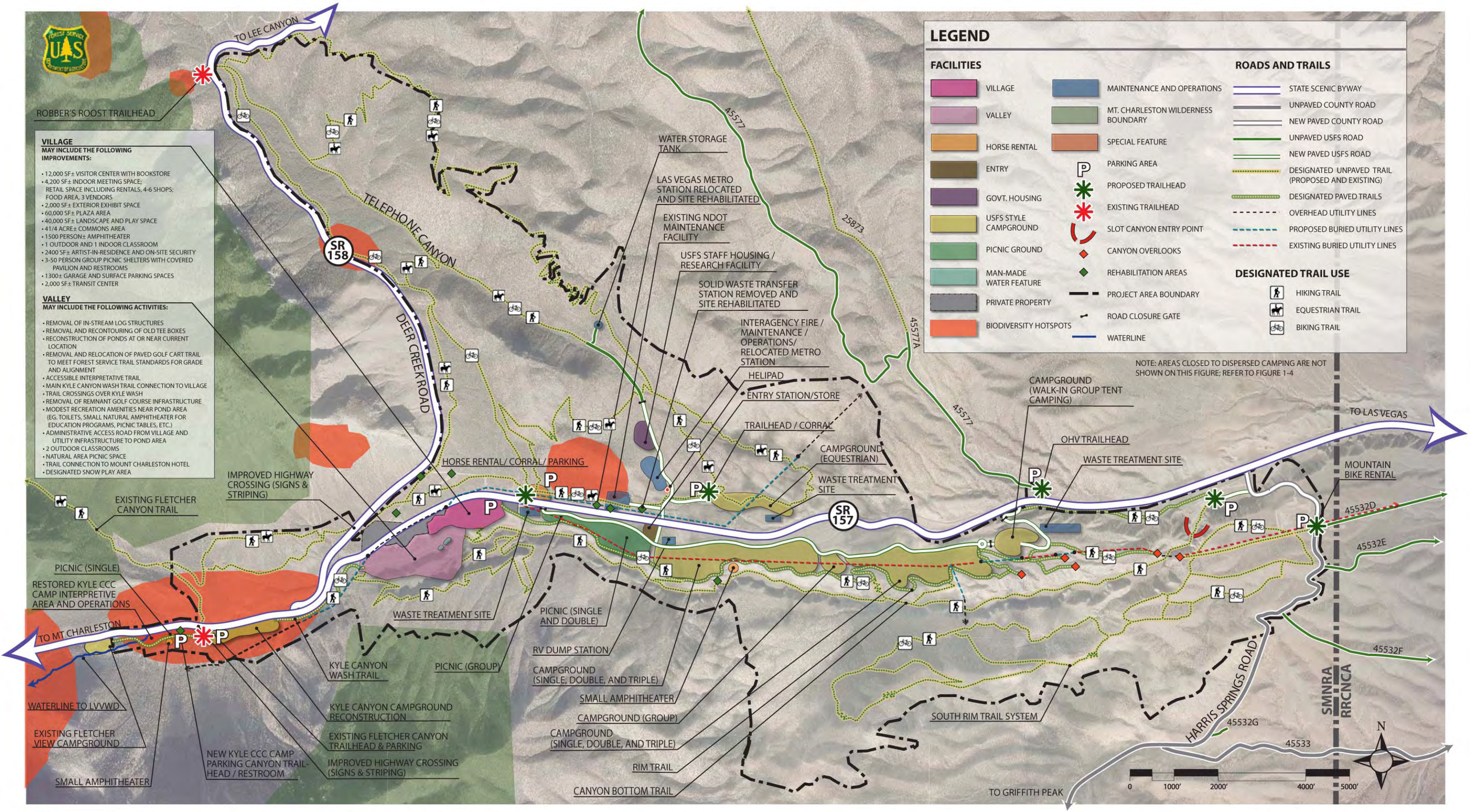


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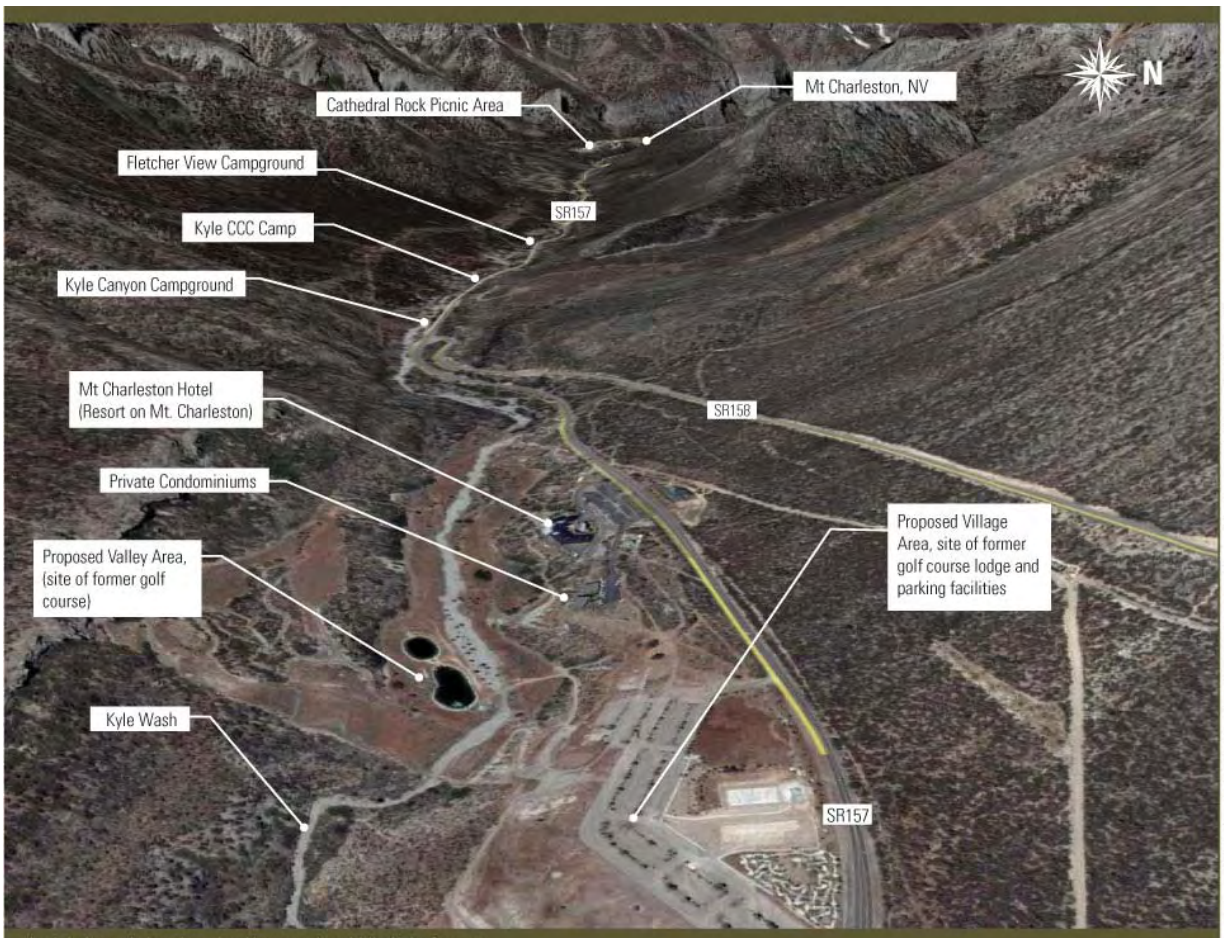
FIGURE 1 - 3: PROPOSED ACTION

towards desired future conditions described in that plan (Forest Service 1996). This action is different than the Proposed Action as described in the NOI published in the FR on February 21, 2006. The Proposed Action described in the NOI was developed based on Option 1 identified in the Middle Kyle Canyon Framework Plan of August 2005 (Shapins Associates 2005). See Chapter 2, *Alternatives, Including the Proposed Action,* for a description of the differences between the actions and the reasons for the changes.

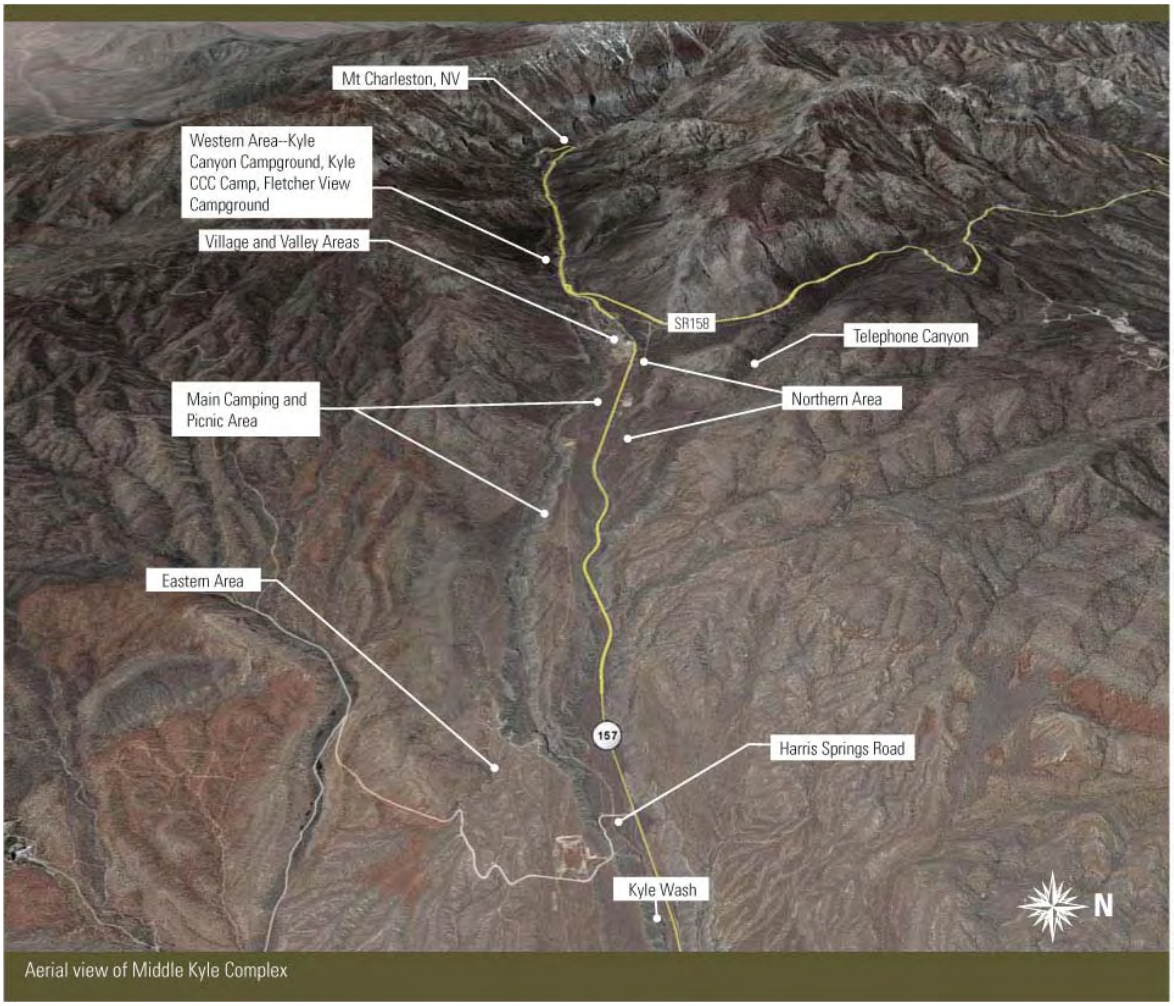


Aerial view of abandoned golf course in middle Kyle Canyon.

Credit: Google Inc. 2006. Google Earth Pro, Version 3. Mountain View, CA. Accessed: November 30, 2006.

The Proposed Action is located in Kyle Canyon, approximately 16 miles west of the intersection of SR 157 with US 95 and adjacent to a 6-mile section of SR 157 as shown on Figure 1-2. The area covered by the Proposed Action begins at the Fletcher View Campground on the west and extends to the Harris Springs Road on the east. There are six areas within the project area used to describe the location of proposed facilities and activities: the Western Area, the Village, the Valley, the Main Camping and Picnic areas, the Northern Area, and the Eastern Area. The Proposed Action footprint is approximately 4,300 acres in size for the Middle Kyle Complex and an additional 4,900 acres for administrative actions proposed to occur outside the Middle Kyle Complex area. Refer to Figure 1-3 for the location of the facilities and land uses described below.

The Western Area comprises the existing developed sites, including Fletcher View Campground, the Kyle Canyon Campground, Kyle CCC Camp, Interim Visitor Center, and Fletcher Canyon Trailhead. Improvements proposed for this area include the Kyle Canyon Wash Trail, a hiking/biking trail connecting the proposed Village area to the existing campgrounds and Kyle CCC Camp, and a looped hiking trail south of Kyle Canyon Campground. The Fletcher View Campground existing drainage structure would be replaced to meet current Forest Service standards. Kyle Canyon Campground would be reconstructed with updated campsites, new restrooms, and three new walk-in units. Selected roads and parking stalls would be widened and rehabilitated, and sewer lines, septic tank, and drain field would be installed, as would electrical utility. The water distribution system would be replaced and existing drainage structures would be upgraded to meet current Forest Service standards.



Aerial view of Middle Kyle Complex

Credit: Google Inc. 2006. Google Earth Pro, Version 3. Mountain View, CA. Accessed: November 30, 2006.

Improvements proposed at the Kyle CCC Camp include restoration of existing historic buildings for managed public use; removal of non-historic outbuildings; removal of aboveground fuel tanks; removal of public restrooms and interim visitor center; rehabilitation and restoration of abandoned roads, parking, and boneyard (outdoor storage) area; and infrastructure improvements to retained roads and trails. A new trail loop would be added to the Fletcher Canyon Trail

and would connect to proposed trails in the Northern Area. Kyle Canyon Wash Trail would also be constructed as a paved trail meeting Forest Service Trail Accessibility Guidelines (FSTAG). This hiking/biking trail would connect the proposed Village area to the existing campgrounds and Kyle CCC Camp.

The Village would be the center of proposed activities and would be located on the previously disturbed areas of the 128-acre parcel recently acquired by the Forest Service, south of SR 157. Facilities at the Village would include a new visitor center, indoor group meeting area, retail space, food concession areas, residential space (security/artist-in-residence), one indoor and one outdoor classroom, plaza area including landscaped/play areas, 1,500-person amphitheater, three group picnic sites, commons area, underground parking structure, transit center, and an access road.

The Valley area would be located adjacent to the Village, in the wash and southern uplands of the 128-acre acquired parcel. Activities proposed for this area include reconstruction and restoration of existing ponds for wildlife/fishing ponds for children, site restoration around the ponds, outdoor classrooms, restoration of Kyle wash and uplands areas, and removal of remnants of the golf course. Facilities proposed for this area include a natural amphitheater, sledding hill, public restrooms, paved and unpaved trails including new trail crossings over Kyle wash, an FSTAG-accessible interpretive trail, the Kyle Canyon Wash Trail, and a trail connection to the Mount Charleston Hotel (recently renamed the Resort on Mount Charleston).

The Main Camping and Picnic areas are proposed to be located on a large flat area immediately east of the Village, south of SR 157. Forest Service-style campgrounds would include tent/RV sites with hook-ups, group camping areas, shower and restroom facilities, a small amphitheater, and access roads. Pedestrian and bicycle trails would also be included in the camping and picnic areas with connections to the main multiuse trail system. The picnic areas would include individual sites, group sites, restroom structures, shade structures, parking, and an access road. Pedestrian and bicycle trails would also be included in the camping and picnic areas with connections to the main multiuse trail system.

Proposed facilities located north of SR 157 would include single- and multiuse hiking, biking, and equestrian trails; a horse rental concession area; an equestrian campground; and an OHV trailhead to access existing trails. Proposed equestrian facilities would include a horse rental concession, equestrian campground, equestrian corrals and trailhead parking; and an equestrian/hiking crossing on SR 158 connecting the Northern Area trails to the Fletcher Canyon trails.

Forest Service administrative facilities are proposed for this area and would include fire and administrative office/warehouse, concessionaire office, research center, helipads, and seasonal employee housing. Facility and office space may be included for other agencies. The Nevada Highway Patrol and Las Vegas Metro facility would be relocated to the proposed administrative area and the existing site rehabilitated. The existing solid waste transfer station would be removed and the site rehabilitated. NDOT maintenance yard highway access would be rerouted to connect to the new road leading into the administrative and

equestrian campground areas. Rehabilitation of existing water storage reservoirs and unneeded roads would occur. Telephone Canyon Road would be gated and closed to motor vehicle use north of the employee housing area. A pedestrian crossing of SR 157 and new access roads would be constructed.

Facilities proposed for the Eastern Area located adjacent to the Harris Springs Road south of SR 157 include a paved access road and a trailhead with vault toilet connecting to a hiking trail in the canyon bottom. A paved trail connecting to the Rim Trail is proposed west of Harris Springs Road. Also proposed for the south side of the Kyle wash are a second trailhead and restrooms, a mountain bike rental/concession, and mountain bike/hiking trails. Harris Springs Road would be widened and paved from SR 157 to the mountain bike rental/concession facility with an improved drainage crossing at Kyle wash. Many of the designated roads and trails west of the mountain bike rental/concession would be closed to motorized vehicles for use as hiking and biking trails.

Other proposed facilities may include, but are not limited to the following: infrastructure to support the planned facilities (e.g., roads, utilities, stormwater management, wastewater treatment); improvements to SR 157 to provide safe intersections for vehicles and pedestrians; restoration and revegetation of abandoned roads, trails, and utility sites; removal of illegally dumped materials; moving portions of existing aerial utility lines installed underground; select removal of non-native trees and shrubs in the Village area; closure of selected Forest Service roads to motor vehicles; and conversion of selected Forest Service roads to non-motorized trail use. The SMNRA Motor Vehicle Use Map and Travel Management Plan would be updated to be consistent with the transportation decisions made through this analysis. Several of the high-use recreation and administrative areas may include select plantings with non-native, non-invasive tree and turf species. Under the Proposed Action the water system for all proposed facilities east of the Western Area would be entirely on lands owned and managed by the Forest Service. The sewer system would consist of several on-site septic tank and drain field systems. Appropriate water conservation measures and sustainable design techniques would be implemented.

See Chapter 2, *Alternatives, Including the Proposed Action*, for a more detailed description of the Proposed Action.

Construction of the Proposed Action is anticipated to begin within 1 year after publication and circulation of the final EIS and record of decision. Design and construction of the Proposed Action may occur in phases over a period of 15 years.

The funding provided by the SNPLMA would support the majority of the costs of design and construction of the Proposed Action.

The Forest Service may also implement the following administrative action that includes areas outside of the Middle Kyle Complex project area (see Figure 1-4):

- Dispersed camping would be prohibited within 300 feet on either side of Forest Service roads and trails open to motorized vehicles, trailheads, county roads, and state highways within the Lee Canyon, Kyle Canyon, and Deer

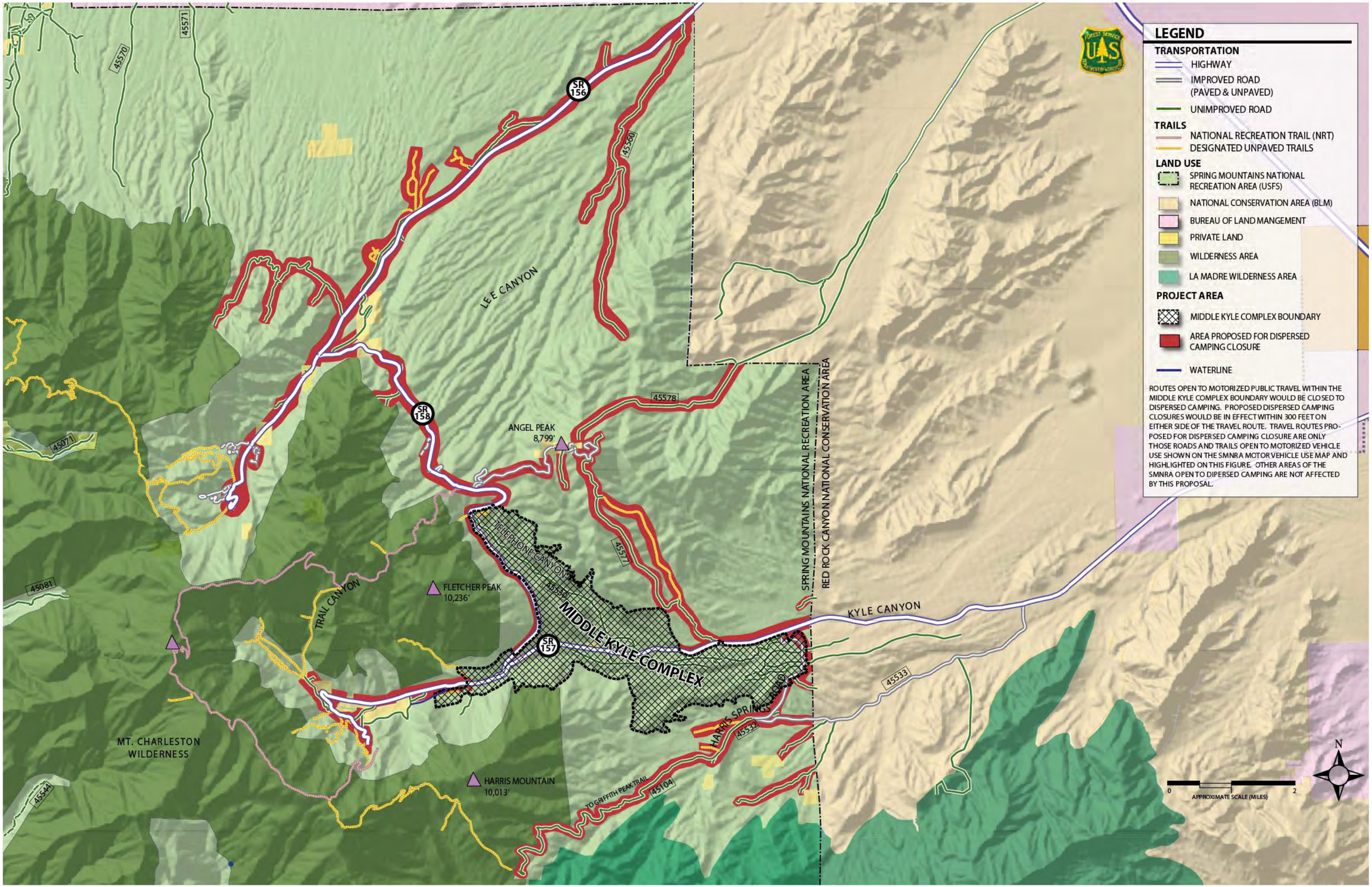


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FIGURE 1-4 : PROPOSED DISPERSED CAMPING CLOSURE AREAS

Creek areas of the SMNRA, including connecting and tributary Forest Service routes such as those in the Macks Canyon and Harris Springs areas.

1.5 Decision Framework

The Forest Supervisor of the Humboldt-Toiyabe National Forest is the responsible official and will make the decision based on review of the Proposed Action, the other alternatives, and the environmental consequences in the EIS. The decision to be made is whether to implement the action as proposed, implement a modification of the Proposed Action, or take no action at this time. The decision will also encompass the mitigation measures and monitoring that will be required.

1.6 Public Involvement

Following is a summary of the public involvement conducted for the Proposed Action.

1.6.1 Pre-NEPA Public Involvement

Middle Kyle Canyon Framework Plan

Extensive pre-NEPA public involvement was conducted to identify options and new opportunities for conservation, recreation, and environmental education on approximately 2,500 acres of land located in middle Kyle Canyon. The focus of this effort was to gather information and analyze a range of potential land use options. The land use options analyzed provided for resource protection, recreation and administrative facility development needs, and environmental education opportunities.

The result was the planning document titled *Middle Kyle Canyon Framework Plan*, dated August 2005. The Forest Service used a variety of public involvement methods for gathering information to develop the vision and goals for the area and to formulate three options for analysis in the planning document. Based on feedback from the public, the three options were narrowed to a preferred option (Option 1). This preferred option was presented in the NOI as the Proposed Action for evaluation under the NEPA process.

Development of the framework plan included a broad range of public involvement activities. These activities were conducted during 2004 and 2005 and included those listed below.

- Conducting several small group information-gathering meetings with environmental organizations, recreation user groups, elected officials, Mt. Charleston residents and business owners, tourism groups, and others

with an interest in or knowledge of the Kyle Canyon area to gain an understanding of the area's special qualities and issues.

- Hosting a 2-day workshop and field trip for American Indian tribes that have a connection to the Spring Mountains on September 2 and 3, 2004.
- Presenting the master planning process and preferred option at the "Focus on the Forest: A Mt. Charleston Summit" held on February 22, 2005. The summit's purpose was to discuss a variety of issues and planning efforts underway to conserve the SMNRA. Approximately 200 invited guests from various government agencies, organizations, and community groups attended the summit, including two Nevada senators; members of the Las Vegas Paiute Tribe; representatives from the Nevada Division of Forestry, the Regional Transportation Commission of Southern Nevada, the USFWS, and The Nature Conservancy; a Clark County Commissioner; residents of Mt. Charleston; representatives from Pahrump; and other entities. The draft preferred option was available for public comment beginning on February 22, 2005, and ending on April 9, 2005.
- Presenting the draft preferred option to a planning review group consisting of more than 20 community and local government representatives.
- Holding a public open house on March 29, 2005, where members of the public could review the options, ask questions, and provide comments. More than 100 people attended. The meeting was publicized through press releases, at the Mt. Charleston Summit, in a newsletter distributed in February 2005, on the Mt. Charleston Summit's web site, and over local radio announcements. More than 35 questionnaires were received during the comment period. The comments were summarized and incorporated into the framework plan and presented to the planning review group.
- Distributing newsletters at meetings and to a mailing list of more than 500 people. The first newsletter was distributed in August 2004 and presented information regarding the SMNRA and the framework plan. The second newsletter was mailed in February 2005 and described the vision and goals for the Proposed Action and details of the three options. The third newsletter was mailed in July 2005. This newsletter described the final draft preferred option, summarized the public comments, and presented the next steps for the framework plan.
- Creating a web site to keep the public informed of the latest developments regarding the framework plan. Information on the web site included project description; reports, documents, and newsletters created during the process; and descriptions of the three plan options. This Web site can be accessed at <http://www.fs.fed.us/r4/htnf/projects/smnra/middle_kyle_complex/home.shtml>.

1.6.2 Notice of Intent

The *Forest Service Environmental Policy and Procedures Handbook* (FSH 1909.15_10) requires an early and open "scoping" process as part of the preparation of an EIS. *Scoping* is the process by which the lead agency solicits

input from the public and interested agencies on the nature and extent of the issues to be addressed in the EIS.

The NOI was published in the FR on Tuesday, February 21, 2006. It is the first formal step in preparing an EIS and scoping process. The NOI asked for public comment on the proposal from February 21, 2006, to April 3, 2006. As part of the public involvement process related to the release of the NOI, a letter dated February 23, 2006, was also sent to 451 stakeholders. An additional letter, dated March 6, 2006, was sent to nine American Indian tribal chairs. The letters included information regarding initiation of the NEPA process and the intent to prepare an EIS, a project summary and a map of the Proposed Action, and requested comments.

The Proposed Action was modified after the NOI was published. Changes to the Proposed Action include replacement of the existing water main from the Rainbow Subdivision water meter to Kyle CCC Camp and reconstruction of the Kyle Canyon Campground. A summary of these modifications was provided to a list of interested parties and posted on the Forest Service internet site with a request to submit written comments on the modifications from April 30, 2008, to May 31, 2008.

1.6.3 Notice of Availability

The Notice of Availability of the Middle Kyle Complex DEIS was published in the FR on October 2, 2009. Additionally, email and postcard notifications were distributed on September 23, 2009, to individuals and agencies on the project mailing list. The DEIS was mailed to all interested parties for public comment on September 23 and 24, 2009.

The DEIS was posted on the project web site and hard copies were available for review at three locations:

- BLM Public Room, 4701 N Torrey Pines Drive, Las Vegas, NV 89130;
- Sahara West Library, 9600 West Sahara Avenue Las Vegas, NV 89117; and
- Mount Charleston Library, 1252 Aspen Avenue, Las Vegas, NV 89124.

Legal notices were published in the following publications:

- *Las Vegas Review-Journal* and the *Las Vegas Sun* on October 5, 2009; and
- *The Reno Gazette-Journal* on October 7, 2009.

The comment period on the DEIS ended on November 16, 2009, a period of 45 calendar days.

1.6.4 Cooperating Agencies

To facilitate interagency participation in the preparation of the EIS, the Nevada Department of Wildlife, the Clark County Department of Air Quality and Environmental Management, and the BLM are the cooperating agencies for the EIS process. The USFWS was involved in the EIS process as a participating agency under the CA. Meetings were held throughout the EIS process to update the agencies on the status and schedule of the Middle Kyle Complex project, receive specific agency comments, and/or discuss issues regarding the proposed project and project area resources.

Cooperating agencies may be federal, tribal, state, and local government agencies that have jurisdiction by law and/or special expertise with respect to reasonable alternative or significant environmental, social, or economic impacts associated with the proposed project. The benefits of granting cooperating agency status include disclosure of relevant information early in the analytical process; receipt of technical expertise and staff support; avoidance of duplication with state, tribal, and local procedures; and identification and discussion of intergovernmental issues. Cooperating agency relationships with federal, tribal, state, and local agencies help to achieve the direction set forth in NEPA to work with other levels of government "to promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans."

1.6.5 American Indian Collaboration

Culturally affiliated tribes[1] were informed of the Middle Kyle Complex project during the pre-NEPA public involvement process through workshops, site visits, meetings, and letters. Formal consultation on a government-to-government basis, as required by Executive Order 13175, began on August 7, 2006, when a presentation on the proposed project was given to representatives of the American Indian tribes. The tribal governments expressed the need to be informed as alternatives were developed and when the preferred alternative was identified for the decision. The tribal governments expressed their desire that they be included in the decision.

A second meeting was held with the tribal governments on March 18 and 19, 2008, in conjunction with other federal agencies, at which an update on the Middle Kyle Complex project was provided.

[1] The culturally affiliated tribes include the following tribal governments: the Las Vegas Paiute Tribe, the Pahrump Paiute Tribe, the Moapa Band of Paiute Indians, the Paiute Indian Tribe, and the Colorado River Indian Tribes (Chemehuevi only). Culturally affiliated refers to tribal governments that consider the Spring Mountains landscape to be their creation place.

In May 2009, the Nuwuvi Working Group[2] was formed to provide a participatory and collaborative process in a culturally approved format to improve government-to-government consultation for this project. Nuwuvi Working Group members received a copy of the administrative DEIS prior to a meeting held June 23 and 24, 2009, at which the alternatives were presented and a field visit was conducted. Topics of discussion included providing written Nuwuvi commentary for incorporation in the FEIS, and providing comments on the DEIS and vegetation management plan upon release of the DEIS to the public. The Nuwuvi Working Group provided the Forest Service with initial reactions on the alternatives following the meeting.

On October 18 through 20, 2009, the Nuwuvi Working Group held a meeting to prepare written comments on the DEIS. The Forest Service attended the last day of that meeting to respond to questions.

On November 30, 2009, a final meeting was held with the Nuwuvi Working Group and the Forest Service. The Forest Service presented the preferred alternative currently under consideration in the FEIS and the draft Record of Decision, discussed the cultural resource survey report, responded to questions from the Nuwuvi Working Group, and discussed how to incorporate Nuwuvi comments on the DEIS and commentary into the FEIS.

1.7 Issues

Using comments from the public, state, and local governments; other federal agencies; and American Indian tribes, the IDT developed a list of issues to address in the analysis. Forest Service NEPA guidance defines an issue as "a point of disagreement, debate, or dispute about the Proposed Action based on effects identified through scoping" (Forest Service 2006b).

1.7.1 Significant Issues

The CEQ directs agencies to "concentrate on issues that are truly significant to the action in question, rather than amassing needless detail" [40 CFR 1500.1(b)].

The Forest Service deciding official determined the issue below to be significant. This significant issue was used to either develop alternatives to the Proposed Action, project design features, or mitigation measures or followed throughout the analysis of the environmental effects of the Proposed Action. The analysis of environmental effects is presented in Chapter 3, *Affected Environment and Environmental Consequences*.

- Construction and use of the proposed Kyle Canyon Wash Trail from the Village to Kyle Canyon Campground through Spring Mountains acastus checkerspot butterfly (*Chlosyne acastus robusta*) habitat may adversely impact this species (designated as Forest Service sensitive species,

[2] The Nuwuvi Working Group comprises tribally designated representatives from the seven tribal governments identified as having ancestral relationships with the Spring Mountains.

CA species of concern, MSHCP covered species, and LA Tier 1 Special Status Species). The indicators used to compare between alternatives include the measure of permanent and temporary loss of acastus checkerspot habitat (in acres). The potential loss of habitat is measured as the amount of known foraging and mate selection habitat within the project area that will be impacted temporarily (during construction) and permanently (during operations) due to the proposed project. These indicators are tracked by analysis conducted for the evaluation of the alternatives.

Bee lights on Rough angelica in bloom

Spring Mountains acastus checkerspot butterfly

1.7.2 Non-Significant Issues

The NOI published on February 21, 2006, asked for comment on the proposal. During the comment period (between February 21 through April 3, 2006), 27 comment letters were received from federal, state, and local agencies and from the general public. These comments resulted in identification of the significant issue and several other issues and resource areas that were deemed non significant by the Forest Service.

Five comment letters were received in response to the request for comments on the revised Proposed Action. Respondents included one federal agency and the general public. These comments identified several issues and resource areas that were deemed to be non-significant by the Forest Service.

See Appendix A of the DEIS, for a detailed description of the comments received as well as responses and rationale used by the Forest Service to arrive at a determination of non-significance for each comment.

1.8 Permits and Required Compliance

Nevada Division of Environmental Protection National Pollution Discharge Elimination Permit

Nevada Division of Environmental Protection National Pollutant Discharge and Elimination System General Stormwater Permit for Construction

Clark County Department of Air Quality and Environmental Management Dust Control Permit for Construction Activities

Clark County Development Services for road improvement plan and drainage study approvals for county road improvements

Clean Water Act Section 404 Compliance

Nevada Department of Transportation Encroachment Permit

Nevada Division of Environmental Protection Clean Water Act Section 401 Water Quality Certification

Nevada Division of Environmental Protection, Bureau of Safe Drinking Water permit to operate public water systems

Nevada Division of Environmental Protection and/or Clark County Health Department permits for waste water treatment facilities

Chapter 2

Alternatives, Including the Proposed Action

View from SR 158 overlooking the former golf course and proposed Village and Valley areas (March 2005). The Buildings were removed in 2006.

2.1 Introduction

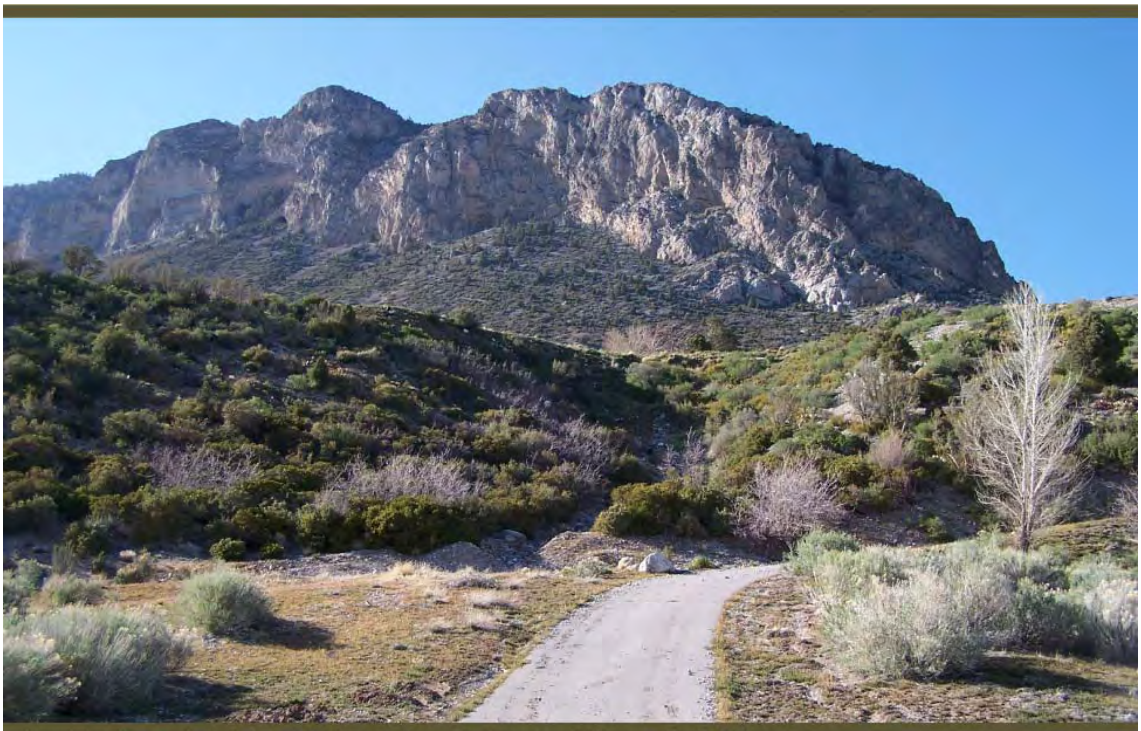
This chapter describes the Proposed Action and alternatives considered for the Middle Kyle Complex project. The alternatives are also presented in comparative form to identify the differences between each alternative and provide a clear basis for comparison of alternative components by the decision-maker and the public.

2.2 Alternatives Considered in Detail

The Council on Environmental Quality (CEQ) regulations direct that Environmental Impact Statements (EISs) evaluate a reasonable range of alternatives including a No Action Alternative (40 CFR 1502. 14[c and d]). This

section describes in detail Alternative 1 (No Action Alternative), Alternative 2 (Proposed Action), and Alternative 3 (Market Supported Alternative).

In 2006, the U.S. Department of Agriculture Forest Service (Forest Service) engaged PricewaterhouseCoopers (PwC) to study the market demand and financial issues related to the development of recreation and visitor facilities proposed in the *Middle Kyle Canyon Framework Plan* (Framework Plan) and a master plan developed for the west side of the Spring Mountain National Recreation Area (SMNRA). This plan, the *Spring Mountains National Recreation Area Market, Financial and Operational Analysis* (Business Plan) was initiated to evaluate the scope, scale, and location of the proposed development in a manner that would be consistent with market demand and support the long-term operation and maintenance of the new facilities. An additional purpose of the analysis was to prepare a financial plan for the operation and maintenance of the new visitor center and recreation facilities included in the Proposed Action. Completion of the financial plan for operations and maintenance is required to obtain a waiver from the Forest Service's national headquarters in Washington D.C. due to the current Forest Service moratorium on construction of new visitor centers. While the Business Plan also evaluated development on the west side of the SMNRA, recommendations included in the Business Plan for this area are not discussed in this EIS.



An asphalt golf cart path winds through the former golf course in the proposed Valley area. (April 2008).

In addition to the Business Plan analysis, conceptual site planning and engineering and mapping studies were completed and included the following:

- *Spring Mountains National Recreation Area Built Environment Image Guide* (Shapins Associates and AJC Architects 2007). This study provides

sustainable design and architectural and site design guidelines for the SMNRA and the Middle Kyle Complex project.

- *Utility Feasibility Studies for Middle Kyle Canyon Development* (AJC Architects et al. 2007). This study analyzed existing and proposed utility infrastructure systems (water, wastewater, electric utilities, telecommunications, solid waste, and alternative energy).
- *Middle Kyle Complex Development: Geotechnical, Materials and Related Studies* (Case, Lowe & Hart 2007). This study analyzed major drainage crossings, garage parking structure, hydraulic and hydrologic data, flood plain mapping, geologic hazard assessment, and geotechnical investigations in the Middle Kyle Complex project area.
- *The Middle Kyle Canyon Development Traffic Study* (PBS&J 2007). This study was prepared to address traffic impacts that may occur as a result of increased traffic. The study analyzed traffic conditions, the existing and proposed roadway network, forecasted and distributed future traffic volumes. The study also estimated the effect of additional traffic generated by the Middle Kyle Complex project and provided recommendations to improve safety and facilitate traffic movement along State Route (SR) 157.
- *Middle Kyle Complex Project, Travel Analysis* (Forest Service 2009b). The travel analysis addressed transportation planning and travel management in the Middle Kyle Complex area, including existing National Forest System (NFS) roads and trails and user-created roads and trails. The travel analysis provides recommendations for improvement, closure, or change in designated use or restrictions on NFS and user-created roads and trails. This document informed the EIS decision-making process. The draft travel analysis plan was circulated with the September 2009 Draft Environmental Impact Statement (DEIS) to accommodate public review and comment. The final travel analysis plan is posted on the Humboldt-Toiyabe National Forest Web site.
- *Middle Kyle Canyon Transportation Options Report* (Jacobs Carter & Burgess 2007). This study was prepared to investigate financial considerations of various transit model alternatives for shuttle bus service in upper Kyle, Deer Creek, and Lee Canyons originating from the Middle Kyle Complex. The report also explored options for on-street bicycle lanes on SR 156, 157, and 158.

Information and findings in these studies and scoping comments were used to refine the infrastructure components of the Proposed Action and to develop the Market Supported Alternative.

Design criteria common to the Proposed Action and Market Supported Alternative are presented in Section 2.3.1.

2.2.1 Alternative 1 – No Action Alternative

The No Action Alternative represents the existing conditions in the project area and is the baseline for comparing impacts and opportunities associated with the Proposed Action and the Market Supported Alternative. Existing conditions are

described in Section 1.3, *Purpose and Need for Action.* Following is a summary of the No Action Alternative.

Under the No Action Alternative, current management decisions would continue to guide the following activities and facility operations in the project area:

- Recreation activities such as camping and picnicking (dispersed and developed), hiking, mountain biking, snow play, and equestrian and off-highway vehicle (OHV) use;
- Forest Service facilities such as the shop and warehouse, maintenance yard, fire station, above-ground fuel tanks, living quarters for permanent and seasonal staff, Kyle Canyon Interim Visitor Center, public restrooms and parking, roads and helipad (used for fire response); and
- Forest Service permitted occupancies would remain in their existing locations. Such occupancies include utility corridors, highway easements, a solid waste transfer facility, and the Las Vegas Metropolitan Police Department (Metro) office. Permitted outfitter guide activities in the area would continue.

Using Southern Nevada Public Land Management Act (SNPLMA) funding, the Forest Service purchased a 128-acre privately owned parcel in February 2004. This property, site of a former golf course, is located south of SR 157 would undergo limited restoration to a more natural state including removal of non-native vegetation, debris, and some asphalt under the No Action Alternative. In the event of a fire in the Kyle Canyon area, the asphalt parking area on the property may be used as a fire command post with the human-made ponds and upper storage reservoirs serving as the source of water for fire suppression activities.

Forest Service management presence in the Middle Kyle Complex project area would remain near current levels. Unauthorized activities, such as illegal dumping of trash, vandalism of cultural sites, and creation of unauthorized trails and roads would continue.

The illegally dumped trash shown in these photos would be removed (April 2008).

Under the No Action Alternative, the Kyle Canyon Interim Visitor Center would continue as the main source of information for visitors. Opportunities to reduce resource impacts in the upper canyon area and to improve environmental information, interpretative facilities, and the visitor experience in the SMNRA would remain the same. Recreation opportunities and facilities would be unchanged. Existing Forest Service administrative facilities would remain in the same location and existing conditions in this area would persist.

Under this alternative, the demand for recreational facilities, environmental interpretation, and information is anticipated to continue to increase as SMNRA visitation increases. Figure 2-1 depicts the existing Forest Service facilities, roads, and designated trails in the project area that would continue to be utilized under the No Action Alternative.

2.2.2 Alternative 2 – Proposed Action

This alternative was originally proposed by the Forest Service in the Notice of Intent (NOI), published in the Federal Register (FR) on February 21, 2006. It was based on Option 1 described in the Framework Plan dated August 2005. The focus of the Framework Plan was to gather information and analyze a range of potential land use options. These options would provide a balance of resource protection, recreation and administrative facility development needs, and opportunities for environmental education. Facilities and activities described in the Framework Plan were based on a projected 1.8 million annual visitors to the SMNRA. The Framework Plan was intended to serve as a master plan for development of the middle Kyle Canyon area over 15 to 20 years.

Several recommendations included in the Framework Plan were not carried forward in the Proposed Action because the activities were outside Forest Service regulatory jurisdiction. These activities included a multi-use trail separate from the Middle Kyle Complex project and parallel to SR 157 extending to the intersection with US 95, a sewer main from the project area extending to US 95, and infrastructure associated with shuttle stops and transit system extending outside of the project area.

The Middle Kyle Complex project area, originally represented as 2,500 acres in size, was based on a conceptual rectangular area identified in the Framework Plan. Subsequent revisions put the project area at 4,300 acres, an area that more closely reflects the footprint of the project as shown on Figures 1-2 and 1-3. An additional area of approximately 4,900 acres located outside the project area encompasses those areas that would be closed to dispersed camping under the administrative action proposed by the Forest Service as part of the Middle Kyle Complex project. The areas proposed to be closed to dispersed camping are discussed in the section titled *Other Actions* and are shown on Figure 1-4.

The Proposed Action was described in the NOI published February 2006, in the FR. After release of the NOI, the Forest Service conducted resource surveys and economic feasibility studies to determine potential environmental impacts, and to assess whether the facilities included in the proposed project could economically

support operations and maintenance costs of the Middle Kyle Complex in the long term.

In April 2008, modifications were made to the Proposed Action as it had been described in the published NOI. The authorization for these changes is provided in Forest Service National Environmental Policy Act (NEPA) regulations at 36 CFR 220.5(e)(1). The changes included the addition of a water main replacement and reconstruction of the Kyle Canyon Campground. The water main serves the entire western section of the project area including Fletcher View Campground, Kyle Civilian Conservation Corps (CCC) Camp, and Kyle Canyon Campground. Reconstruction of Kyle Canyon Campground was added to the Proposed Action because several elements of this alternative connect (e.g., trails, utilities) to existing facilities within the campground.

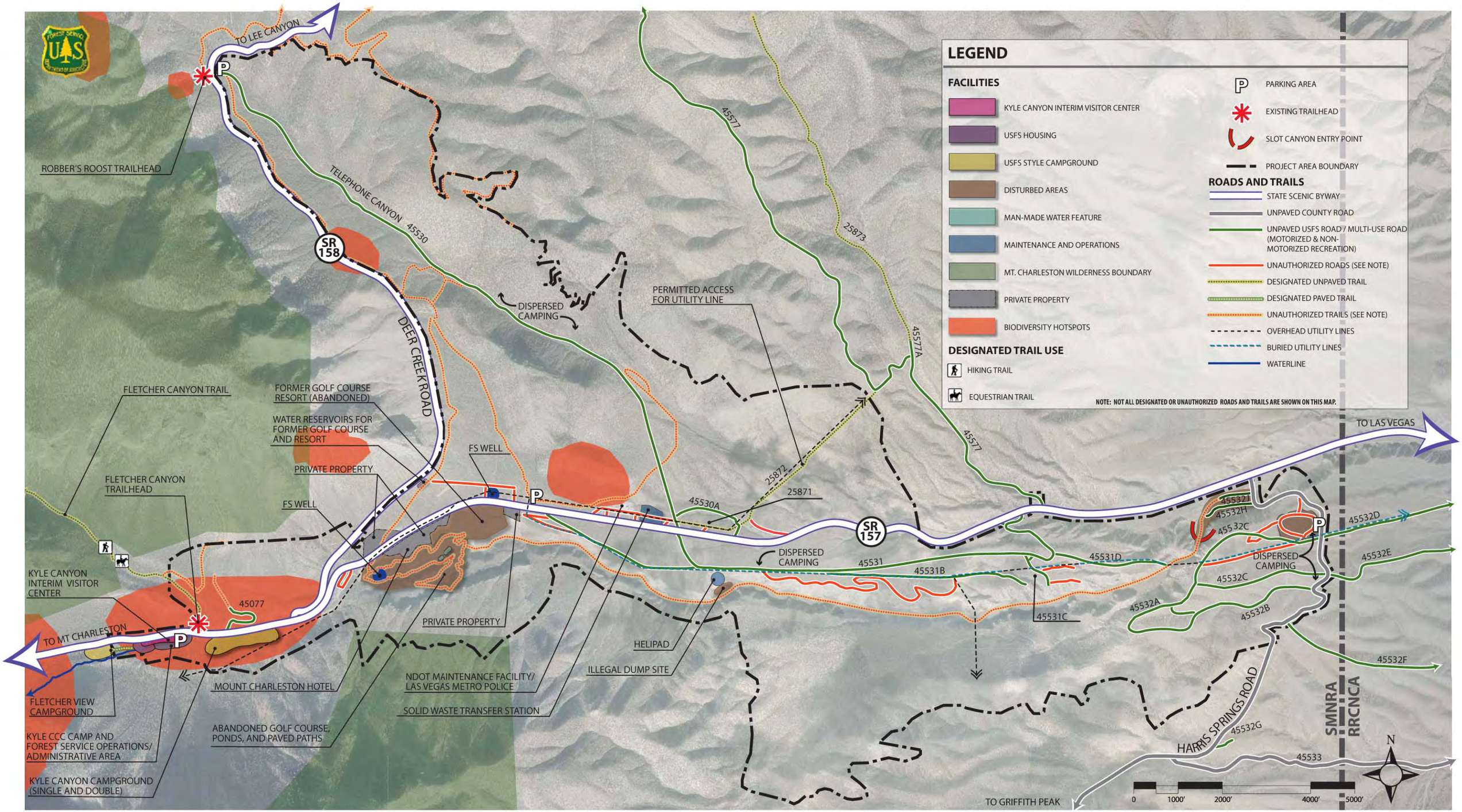
The existing "boneyard" or outdoor storage area at Kyle CCC Camp would be removed (May 2009).

Existing restroom facility at Kyle Canyon Campground (May 2009).

In order to spatially describe the location of proposed facilities and activities identified in this alternative, six general geographic areas are used for the project area: the Western Area, the Village, the Valley, the Main Camping and Picnic Areas, the Northern Area, and the Eastern Area. Figure 1-3 depicts the location of proposed facilities and Table 2-1, which appears later in the chapter, provides a summary comparison of project components and facilities under each alternative. See Appendix B for a one-to-one comparison of project components and facilities under each alternative. The locations of improvements proposed at Kyle CCC Camp and Fletcher Canyon Trailhead are shown on Figure 2-2. Figure 2-3 depicts the proposed reconstruction of Kyle Canyon Campground.

Western Area: The Western Area comprises the existing developed sites, including Fletcher View Campground, the Kyle CCC Camp and Interim Visitor Center, Fletcher Canyon Trailhead and Kyle Canyon Campground.

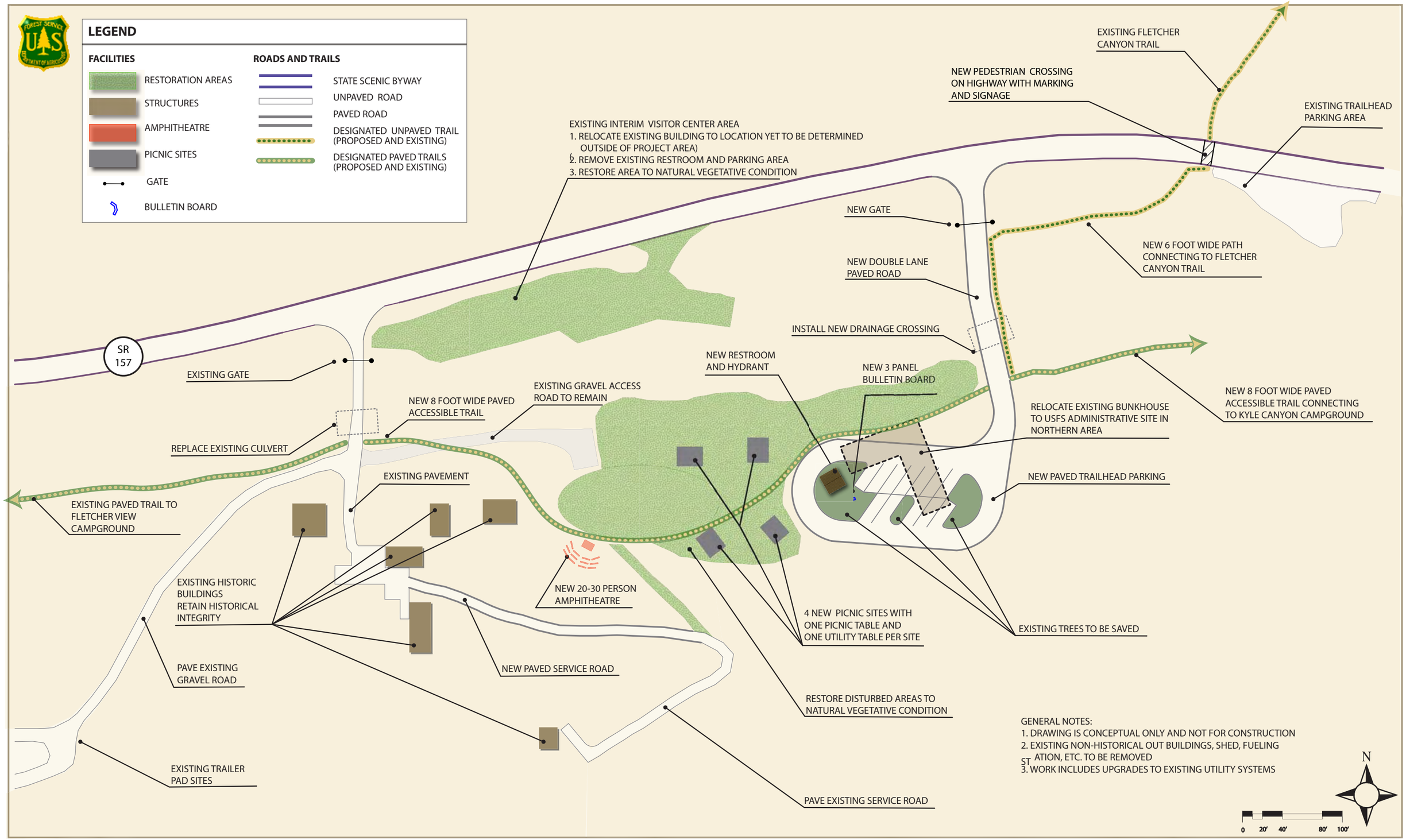
The existing drainage culvert in Kyle wash at the entrance to the Fletcher View Campground would be replaced and upgraded to meet current Forest Service standards. The water main would be replaced from the Rainbow Subdivision to Kyle CCC Camp serving the entire western section of the project area including Fletcher View Campground, Kyle CCC Camp, and Kyle Canyon Campground.



MIDDLE KYLE COMPLEX

USDA FOREST SERVICE • SPRING MOUNTAINS NATIONAL RECREATION AREA

FIGURE 2 - 1: EXISTING CONDITIONS

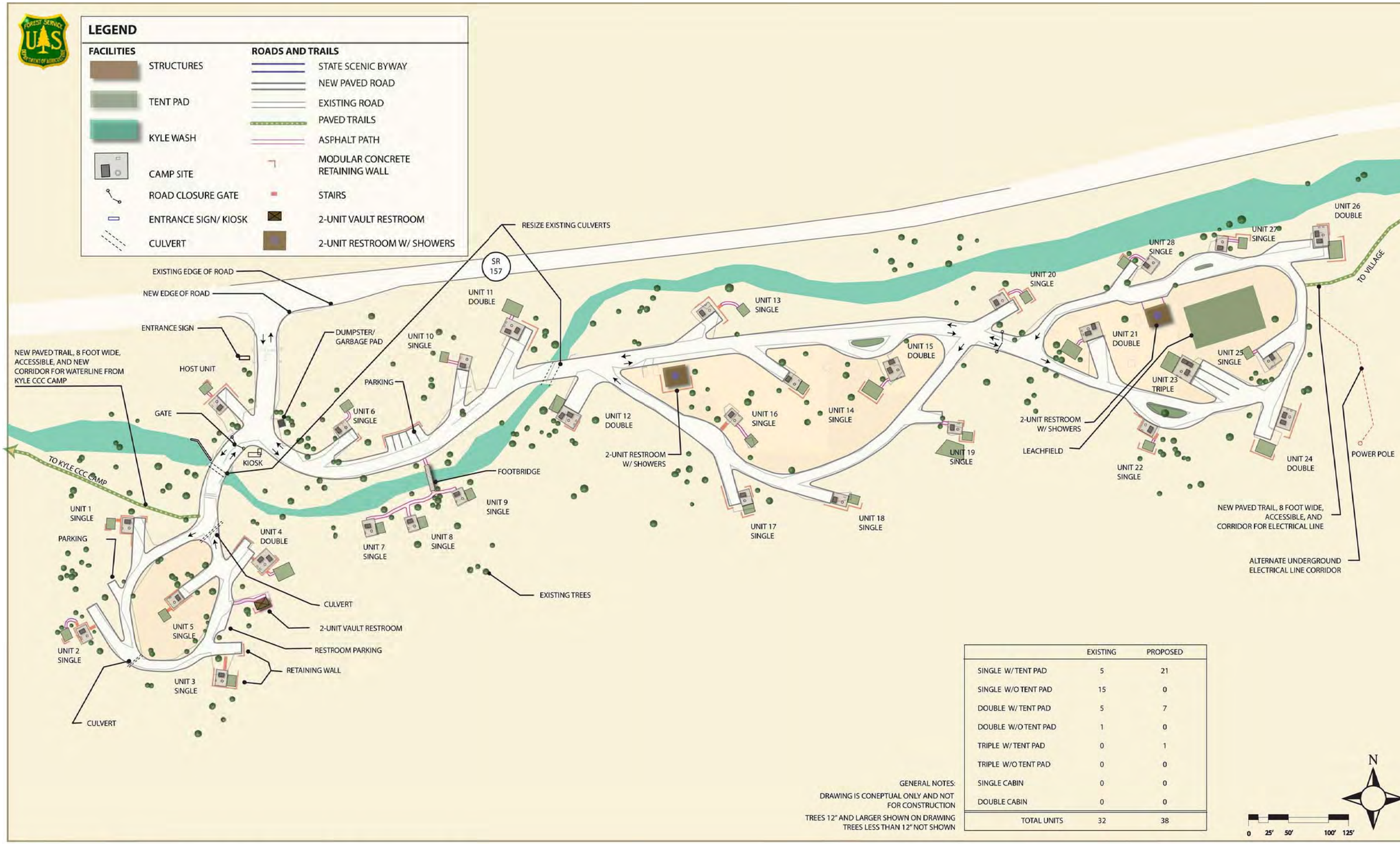


MIDDLE KYLE COMPLEX ENVIRONMENTAL IMPACT STATEMENT

USDA FOREST SERVICE • SPRING MOUNTAINS NATIONAL RECREATION AREA

FIGURE 2 - 2 : PROPOSED ACTION

IMPROVEMENTS TO KYLE CCC CAMP AND FLETCHER CANYON TRAILHEAD



	EXISTING	PROPOSED
SINGLE W/ TENT PAD	5	21
SINGLE W/O TENT PAD	15	0
DOUBLE W/ TENT PAD	5	7
DOUBLE W/O TENT PAD	1	0
TRIPLE W/ TENT PAD	0	1
TRIPLE W/O TENT PAD	0	0
SINGLE CABIN	0	0
DOUBLE CABIN	0	0
TOTAL UNITS	32	38

GENERAL NOTES:
DRAWING IS CONEPTUAL ONLY AND NOT FOR CONSTRUCTION
TREES 12" AND LARGER SHOWN ON DRAWING
TREES LESS THAN 12" NOT SHOWN

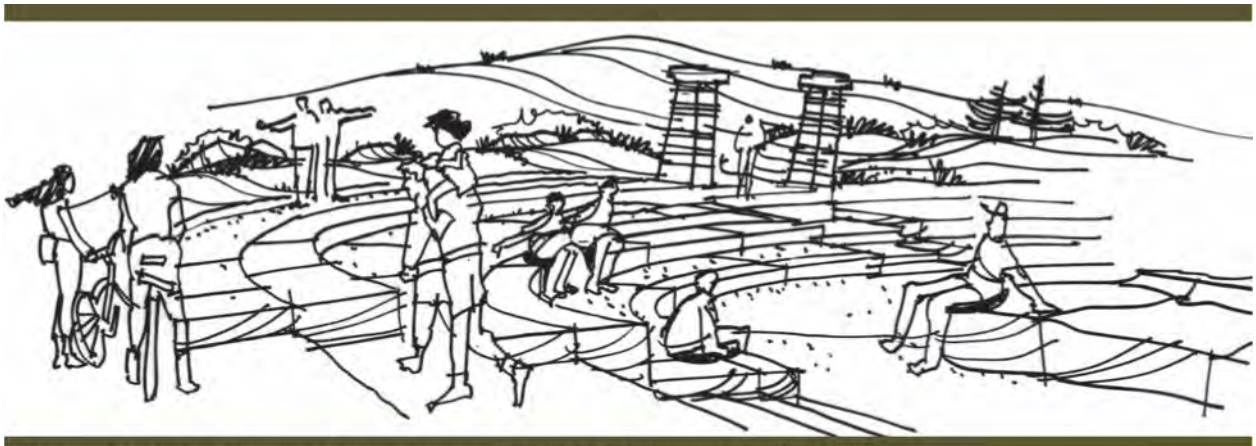
MIDDLE KYLE COMPLEX

USDA FOREST SERVICE • SPRING MOUNTAINS NATIONAL RECREATION AREA

FIGURE 2 - 3 : PROPOSED ACTION

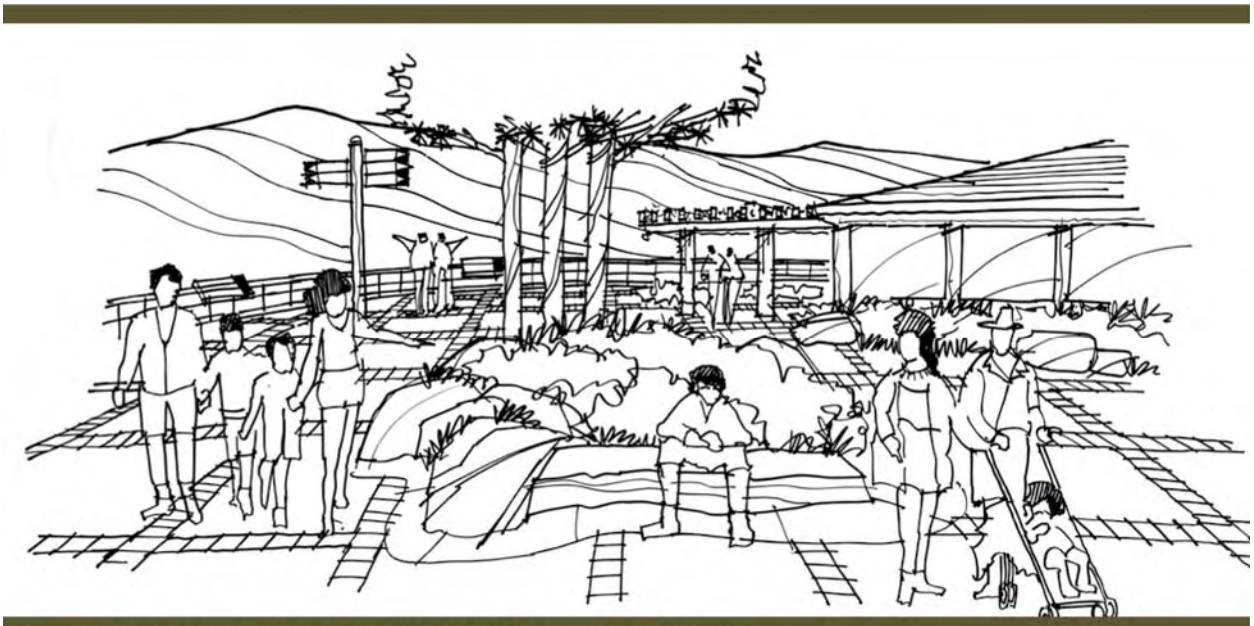
PROPOSED RECONSTRUCTION OF KYLE CANYON CAMPGROUND

Improvements proposed at the Kyle CCC Camp include restoration of existing historic buildings for managed public use and installation of a gate at the existing entrance. Non-historic outbuildings present on the site would be removed, as would aboveground fuel tanks and the existing Kyle Canyon Interim Visitor Center building, restrooms, and parking area. Abandoned roads, parking areas, and the outdoor storage area would be restored and infrastructure improvements would be made to retained roads and trails. Existing and new drainage crossings of Kyle wash would be sized to meet Forest Service standards. Programs offering interpretation of the historic site would be offered at a small amphitheater proposed as part of these improvements.



Conceptual sketch of small amphitheater or outdoor classroom (SMNRA Built Environment Image Guide, 2007).

The existing Fletcher Canyon Trailhead parking would remain in its current location on the south side of SR 157 and an unpaved trail would connect the trailhead to the new parking area. An existing low standard access road would be reconstructed east of the existing entrance to the Kyle CCC Camp, and new parking facilities, a new public restroom, and four picnic sites would be constructed. The pedestrian crossing on SR 157 accessing the Fletcher Canyon Trail would be marked and signed. A new trail loop north of SR 157 would be added to the Fletcher Canyon Trail providing a connection to proposed trails in the Northern Area via pedestrian and equestrian crossing on SR 158. A paved accessible trail meeting Forest Service Trail Accessibility Guidelines (FSTAG) would extend through the Kyle CCC Camp providing a connection from Fletcher View Campground to the Kyle Canyon Campground and to the Village area via the proposed Kyle Canyon Wash Trail (also FSTAG-accessible).



Conceptual sketch of Village outdoor plaza area (SMNRA Built Environment Image Guide. 2007).

Kyle Canyon Campground would be rehabilitated to meet Forest Service accessibility standards for people with disabilities to the extent practicable within topographic and resource constraints. Reconstruction would include updated campsites (new picnic tables, fire rings, grills, utility tables, and wheel stops), and new restrooms (with power, heat, showers, and flush toilets). Three new walk-in campsites would be added on the south bank of Kyle wash accessed by a foot bridge over the wash. Selected roads and parking stalls would be widened and rehabilitated to accommodate two-way traffic and larger recreational vehicles (RVs). The sewer system would be upgraded including installation of sewer lines, a septic tank, and drain fields (located within eastern most loop of the campground). The electrical infrastructure would be upgraded and installed underground utilizing road and trail corridors. Existing drainage crossings and culverts in Kyle wash would be replaced and upgraded to meet Forest Service standards. A campground vegetation management and treatment plan has been developed and will be implemented prior to initiating construction, see the December 2009 *Vegetation Management Plan for the Kyle Campground, Kyle CCC Camp and the Proposed Middle Kyle Complex (*Above and Beyond Ecosystems Enterprise Unit 2009). The proposed Kyle Canyon Wash Trail would be paved providing an FSTAG -accessible connection from the campground to the Village area.

The Village: The Village would be the center of proposed activities and would be located south of SR 157 on the previously disturbed 128-acre site acquired by the Forest Service. Facilities at the Village would include a new Visitor Center, indoor group meeting area, retail space, food concession areas, residential space (security staff/artist-in-residence), one outdoor and one indoor classroom, plaza area, and landscaped play areas, 1,500-person amphitheater, three large group picnic sites with shelters and restrooms, commons area, underground parking structure and surface parking area, transit center, new hiking and biking trails,

and an access road. A biomass facility would provide heating and cooling for the facilities proposed in this area.

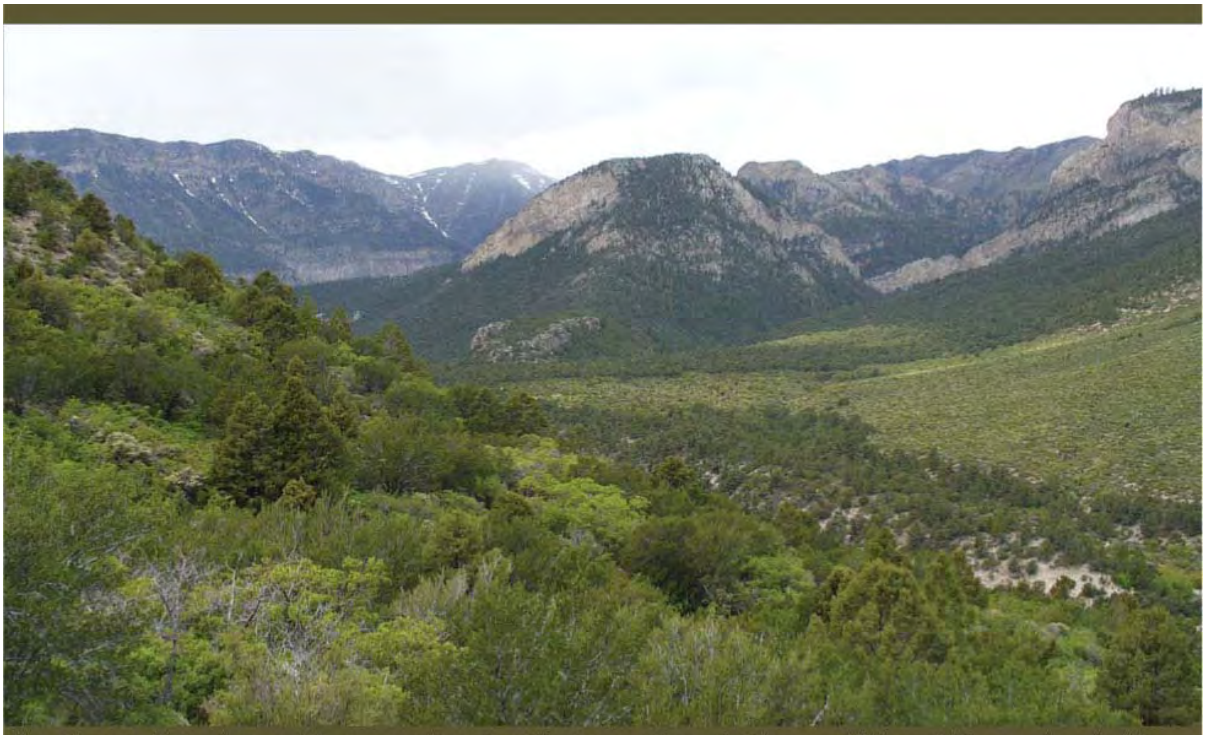
The Valley: The Valley would be located adjacent to the Village, near the Kyle wash and southern uplands of the 128-acre parcel. Activities would include reconstruction and restoration of the existing human-made ponds, including restoration of the uplands surrounding the ponds and Kyle wash. Log structures in Kyle wash would be removed as would remnants of the golf course such as the golf cart paths, tee boxes, and other associated infrastructure.

The old golf course ponds would be reconstructed at or near their current location under both action alternatives (April 2008).

Facilities proposed for this area include wildlife/fishing ponds for children, two outdoor classrooms, a small amphitheater, picnic tables, an area designated for winter snow play, public restrooms, paved and unpaved trails including a new crossing over Kyle wash and connection to the Village, an FSTAG-accessible interpretive trail, and a trail connecting to the Resort on Mount Charleston, formerly known as the Mount Charleston Hotel.

Main Camping and Picnic Area: The Main Camping and Picnic Areas would be located on a large flat area immediately east of the Village, south of SR 157. An entry station and camp store would be located at the entrance with a RV dump station nearby. The picnic areas would be located on the west and include individual sites, group sites, restrooms, shelters, parking areas, and a paved access road. Traditional Forest Service-style campgrounds would include tent and RV sites with full hook-ups, group camping areas, shower and restroom facilities, a small amphitheater, walk-in campsites, and a paved access road. Hiking and biking trails would also be included in the camping and picnic areas connecting to the main multi-use trail system.

Northern Area: Proposed facilities located north of SR 157 would include single- and multi-use hiking, biking, and equestrian trails and an OHV trailhead to access existing trails. A pedestrian/equestrian crossing would be marked and signed on SR 158 and would connect the Northern Area trails to the Fletcher Canyon trails. The proposed OHV trailhead would be located east of NFS road 45577 on the north side of SR 157. A vault toilet and access to existing roads and trails would also be provided.



The trail system will take advantage of the areas magnificent views. This photo was taken south of the proposed Village and Valley areas above the cliffs which overlook the Kyle Wash and distant mountains.

Proposed equestrian facilities would include a horse rental concession and corrals at the trailhead in the Telephone Canyon area. This trailhead would also provide parking and access to the trails for hikers and bikers. An equestrian campground with corrals is also proposed for the area east of the Forest Service administrative facilities and includes a second trailhead with additional parking.

Forest Service administrative facilities proposed for this area would include fire and administrative offices and warehouse, concessionaire office, research center, helipads, and seasonal employee housing. A biomass facility would provide heating and cooling for the proposed administrative facilities in this area.

Facility and office space may be included for other agencies including the Nevada Division of Forestry, Clark County Fire Department, Nevada Highway Patrol, and Metro. The existing Metro facility would be relocated to the proposed administrative area and the existing site restored. The present solid waste transfer station would be removed and the site restored. Access to the existing Nevada Department of Transportation (NDOT) maintenance yard would be realigned to connect to the new entrance road leading into the administrative

facilities and equestrian campground areas. Existing water storage reservoirs would be restored and revegetated, as would abandoned roads. Telephone Canyon Road would be gated and closed to motor vehicle use north of the employee housing area, although authorized vehicles would be allowed to access the proposed water storage tank. A pedestrian crossing on SR 157 would be signed and marked and access roads would be paved.

Eastern Area: The Eastern Area would be located south of SR 157 adjacent to the Harris Springs Road. Two paved trailheads and access roads would be constructed west of Harris Springs Road. The first trailhead would have a vault toilet and proposed trails would connect to hiking trails in the canyon bottom; a paved trail would connect to the Rim Trail. A second trailhead is proposed further south on Harris Springs Road and would include restrooms, a mountain bike rental and concession, and mountain bike/hiking trails. Harris Springs Road would be widened and paved to include a bike lane from the intersection with SR 157 to the proposed mountain bike rental and concession facility. The existing drainage crossing would be improved across Kyle wash. Many of the existing NFS roads and trails in the project area extending westward from Harris Springs Road would be closed to motorized vehicle use and converted to use as hiking and biking trails. Signs and traffic management devices would be constructed to discourage vehicle use west of Harris Springs Road.

Other Actions: Other proposed facilities or actions proposed under this alternative may include: installation of infrastructure to support the planned facilities (e.g., roads, utilities, stormwater management, wastewater treatment); improvements to SR 157 to provide for safe intersections for vehicles and pedestrians; restoration and revegetation of abandoned roads, trails, and utility sites; removal of illegally dumped materials; removal of portions of existing aerial utility lines and installation of the lines underground; removal of selected non-native trees and shrubs in the Village area; closure of selected Forest Service roads to motor vehicle use; and conversion of selected Forest Service roads to non-motorized trail use. The SMNRA Motorized Vehicle Use Map (MVUM) would be updated to be consistent with the transportation decisions made through the Middle Kyle Complex Project Travel Analysis and this EIS process. Under this alternative the water system for all proposed facilities east of the Western Area would be constructed entirely on lands owned and operated by the Forest Service. The sewer system would consist of several on-site septic tanks and drain field systems. Several of the high-use recreation and administrative areas may include select plantings of non-native, non-invasive tree and turf species.

Under the Proposed Action the Forest Service may also implement the following administrative action that encompasses approximately 4,900 acres and extends outside of the Middle Kyle Complex project area (see Figure 1-4):

- Dispersed camping would be prohibited within 300 feet on either side of Forest Service roads and trails open to motorized vehicles, trailheads, county roads, and state highways within the Lee Canyon, Kyle Canyon, and Deer Creek areas of the SMNRA, including connecting and tributary Forest Service routes such as those in the Macks Canyon and Harris Springs areas.

Construction of the Proposed Action is anticipated to begin within 1 year after publication and circulation of this EIS and Record of Decision. Design and

construction of the Proposed Action may occur in phases over a period of approximately15 years. SNPLMA funding would support the majority of the costs of design and construction of the facilities identified in the Proposed Action.

2.2.3 Alternative 3 – Market Supported Alternative

The Business Plan included analysis of the facilities included in the Proposed Action as originally described in the NOI. The Market Supported Alternative was developed in response to economic sustainability concerns relative to Forest Service recreational facilities and comments received from the public.

View of the existing water storage ponds. The Resort on Mount Charleston (formerly known as the Mount Charleston Hotel) and SR 157 can be seen in the distance (May 2009).

View from proposed Rim Trail (April 2008).

Several of the key findings in the Business Plan relevant to the development of the Market Supported Alternative are discussed below:

- Complexity and dynamism of the Las Vegas area make accurate long-range market and financial projections very challenging. The maximum time frame in the analysis used for market demand and financial projections is 10 years. Facility sizing recommendations were based on this criterion.
- SMNRA visitation estimates used to inform the development of the Proposed Action in the NOI were determined to be overstated. The estimates, based primarily on NDOT traffic counts and Las Vegas growth projections, indicated SMNRA current visitation at 1.8 million people annually with expectations that visitation would grow to 3.9 million by the year 2020. Visitation analysis in the Business Plan, however, puts estimated SMNRA visitation currently at approximately 335,600 people annually; that number is projected to grow to 500,000 by 2017 (PwC 2008). The change in visitation projections reduced facility sizing recommendations and transit considerations under the Market Supported Alternative.
- The SMNRA is primarily used for day-use activities by local users. This pattern is expected to continue into the future as residential developments are completed and the Las Vegas metropolitan area population grows. For

example, a master plan for 16,000 new homes has been approved at the intersection of SR 157 and US 95. This development would be located within 12 miles of the SMNRA boundary (PwC 2008). Because of national and regional economic conditions, this development is on hold but is anticipated to eventually undergo residential or mixed use development.

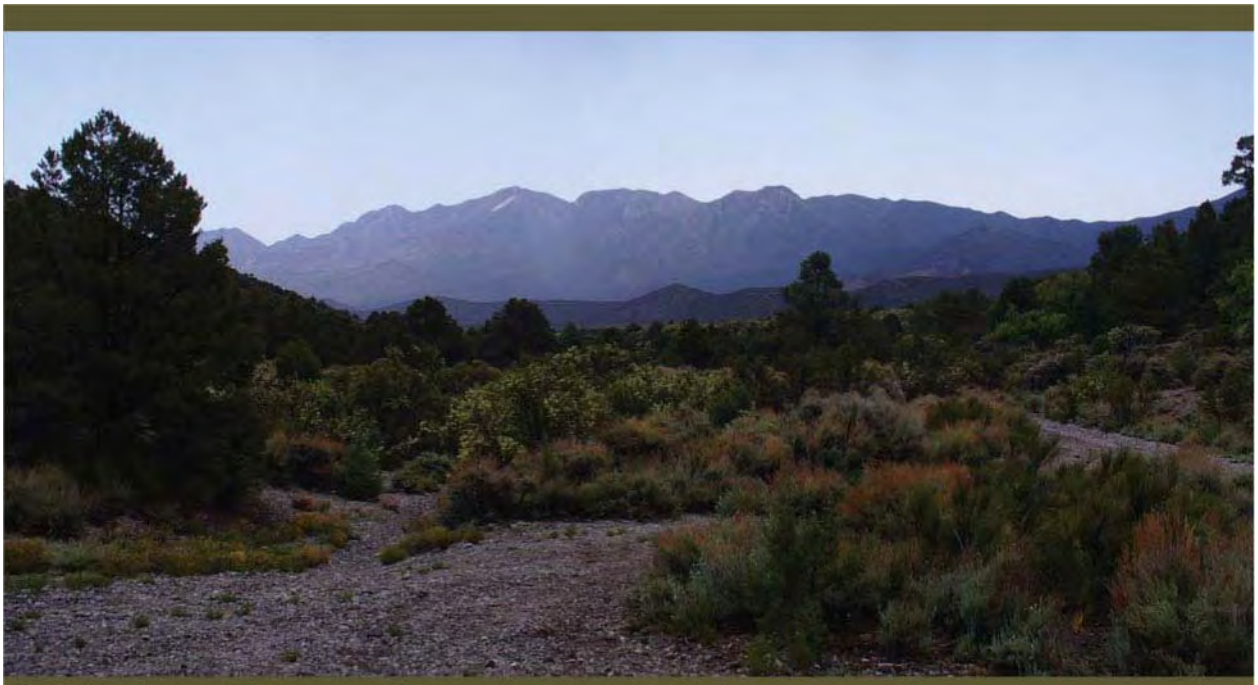
- Analysis of the OHV market in the Business Plan indicated that the Middle Kyle Complex project area has inadequate trail mileage or various levels of challenging terrain to sustain a viable OHV trail system. This conclusion takes into consideration the adjacent Mt. Charleston Wilderness Area, the Red Rock Canyon National Conservation Area (RRCNCA) restrictions on OHV use, air quality restrictions, and biological concerns. Relative to the east side, the analysis identified the west and north sides of the SMNRA and adjacent Bureau of Land Management (BLM) administered public lands as more viable and sustainable for an OHV system.
- Equestrian camping was supported by the analysis; however, it was determined that the Lee Canyon and Blue Tree areas are more appropriate locations to site equestrian camping due to placement of a more extensive equestrian trail network. The length of equestrian trails available in the project area is more suited for day use.
- The 1,500-seat amphitheater and associated 1,200-car parking garage, originally considered as a primary revenue source under the Proposed Action, was not supported by the analysis in the Business Plan. The amphitheater was downsized to 150 seats and a surface parking area of approximately 250 spaces is included in this alternative.
- Stand-alone bicycle rental and equestrian rental, large meeting spaces, full-service cabin rentals, artist-in-residence, multiple food service concessionaires, general retail, and large group campgrounds were not supported in the Business Plan market analysis.
- Based on ridership projections and analysis of shuttle operations and maintenance costs, transit was found to be neither market supported nor cost-effective within the analysis period. Transit facilities and operations are not included in this alternative; however, space has been reserved for future use.

Under the Market Supported Alternative, the Forest Service proposes the construction and operation of the facilities described below. Many elements are similar to those included in the Proposed Action; therefore, only those aspects of the Market Supported Alternative that differ from the Proposed Action are described. Table 2-1 provides a summary of the proposed facilities and land uses considered under the No Action Alternative, Proposed Action, and Market Supported Alternative. Appendix B provides a one-to-one comparison of project components and facilities under each of these alternatives. Proposed facilities and activities under this alternative are shown on Figure 2-4. Improvements proposed at Kyle CCC Camp and Fletcher Canyon Trailhead are shown on Figure 2-5. Figure 2-6 depicts the reconstruction of Kyle Canyon Campground.

The geographic areas used to describe the spatial location of proposed facilities and activities considered under the Market Supported Alternative are the same as those under the Proposed Action, beginning at the Fletcher View Campground on the west and extending to Harris Springs Road on the east. Areas proposed to be

closed to dispersed camping under this alternative are the same as those areas discussed under the Proposed Action and are shown on Figure 1-4.

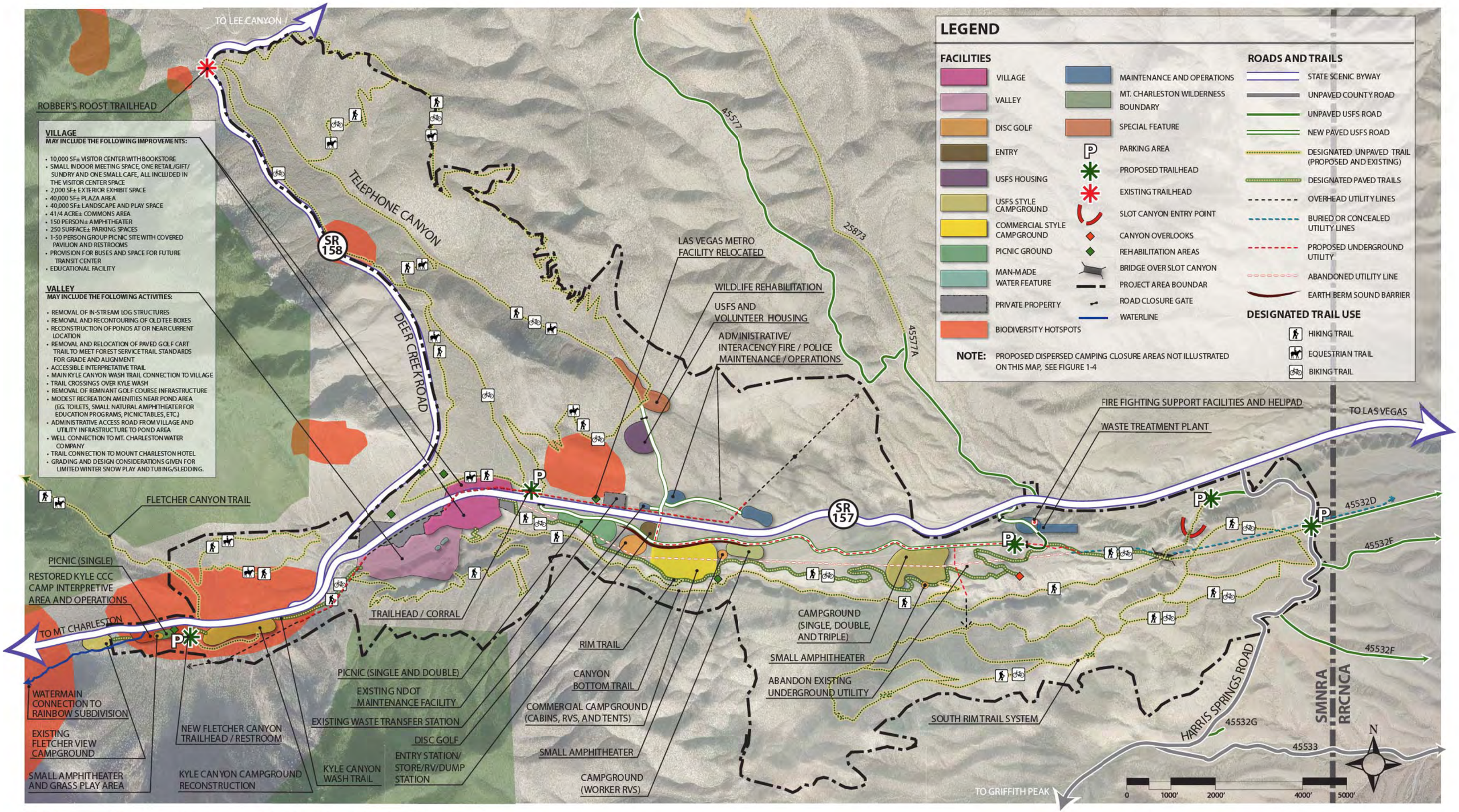
Western Area: Kyle CCC Camp improvements proposed under the Market Supported Alternative include similar activities described under the Proposed Action, but would include relocating the Fletcher Canyon Trailhead parking south of SR 157 to a site east of and adjacent to the Kyle CCC Camp public parking area. Facilities at this parking area would include restrooms, picnic area, and a small amphitheater as described in the Proposed Action with the addition of a grass play area and additional trailhead parking. The new trail loop to the Fletcher Canyon Trail would be constructed as in the Proposed Action but the connector trail leading to SR 158 and the pedestrian/equestrian crossing would not be constructed.



The view from the proposed telephone canyon trail.

Reconstruction of the Kyle Canyon Campground would be similar to the Proposed Action with the following changes: replacement of five single-unit campsites with camp cabins[1]; construction of a looped hiking trail south of Kyle Canyon Campground; construction of fencing along portions of the south side of the campground to prevent the creation of unauthorized trails; rehabilitation and widening of selected roads and parking stalls only at locations where removal of mature ponderosa pines could be avoided; installation of a sewer collection system that would connect to facilities in Kyle CCC Camp and proposed Middle Kyle Complex facilities; addition of a small play space in the east campground loop; and provision of full hook-ups for select campground sites.

[1] Camp cabins are not permanent structures and are constructed on temporary foundations. A typical floor plan and photos can be found on the Web at http://www.pkscabins.com/cabine1room.htm.



MIDDLE KYLE COMPLEX

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FIGURE 2 - 4 : MARKET SUPPORTED ALTERNATIVE

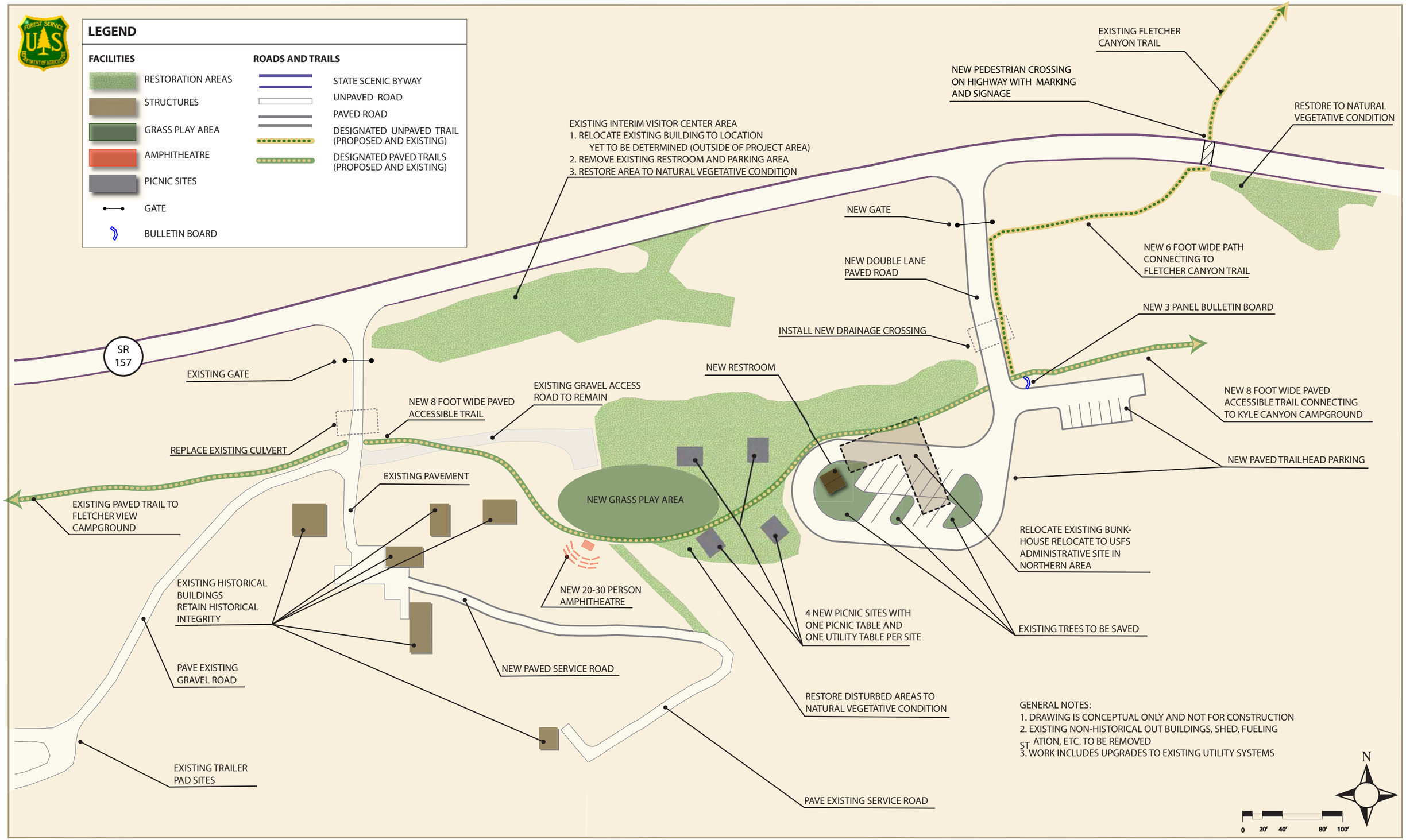

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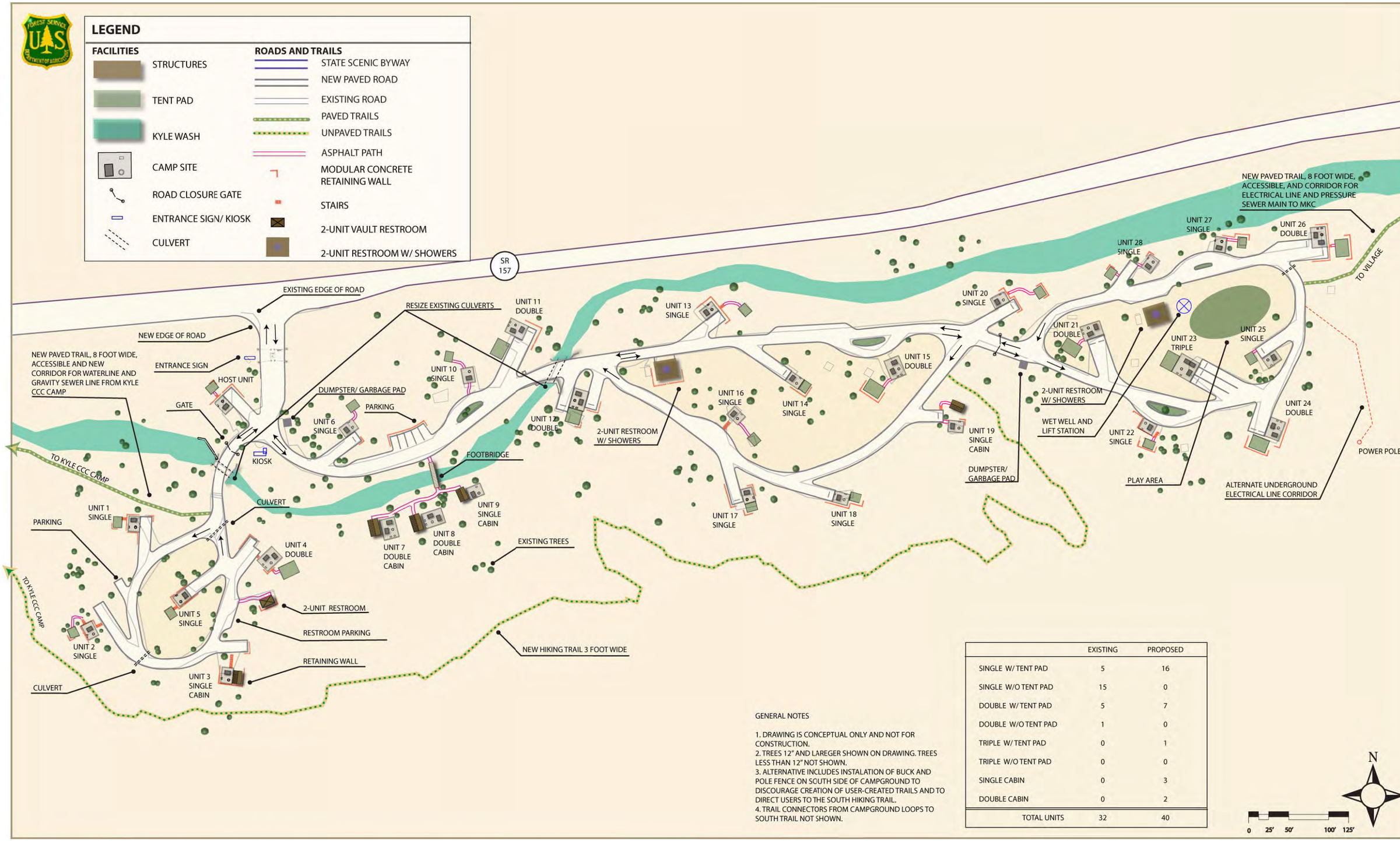
FIGURE 2 - 5 : MARKET SUPPORTED ALTERNATIVE

PROPOSED IMPROVEMENTS TO KYLE CCC CAMP AND FLETCHER CANYON TRAILHEAD



GENERAL NOTES

1. DRAWING IS CONCEPTUAL ONLY AND NOT FOR CONSTRUCTION.
2. TREES 12" AND LAREGER SHOWN ON DRAWING. TREES LESS THAN 12" NOT SHOWN.
3. ALTERNATIVE INCLUDES INSTALATION OF BUCK AND POLE FENCE ON SOUTH SIDE OF CAMPGROUND TO DISCOURAGE CREATION OF USER-CREATED TRAILS AND TO DIRECT USERS TO THE SOUTH HIKING TRAIL.
4. TRAIL CONNECTORS FROM CAMPGROUND LOOPS TO SOUTH TRAIL NOT SHOWN.

	EXISTING	PROPOSED
SINGLE W/ TENT PAD	5	16
SINGLE W/O TENT PAD	15	0
DOUBLE W/ TENT PAD	5	7
DOUBLE W/O TENT PAD	1	0
TRIPLE W/ TENT PAD	0	1
TRIPLE W/O TENT PAD	0	0
SINGLE CABIN	0	3
DOUBLE CABIN	0	2
TOTAL UNITS	32	40

MIDDLE KYLE COMPLEX ENVIRONMENTAL IMPACT STATEMENT

USDA FOREST SERVICE • SPRING MOUNTAINS NATIONAL RECREATION AREA

FIGURE 2 - 6 : MARKET SUPPORTED ALTERNATIVE

PROPOSED RECONSTRUCTION OF KYLE CANYON CAMPGROUND

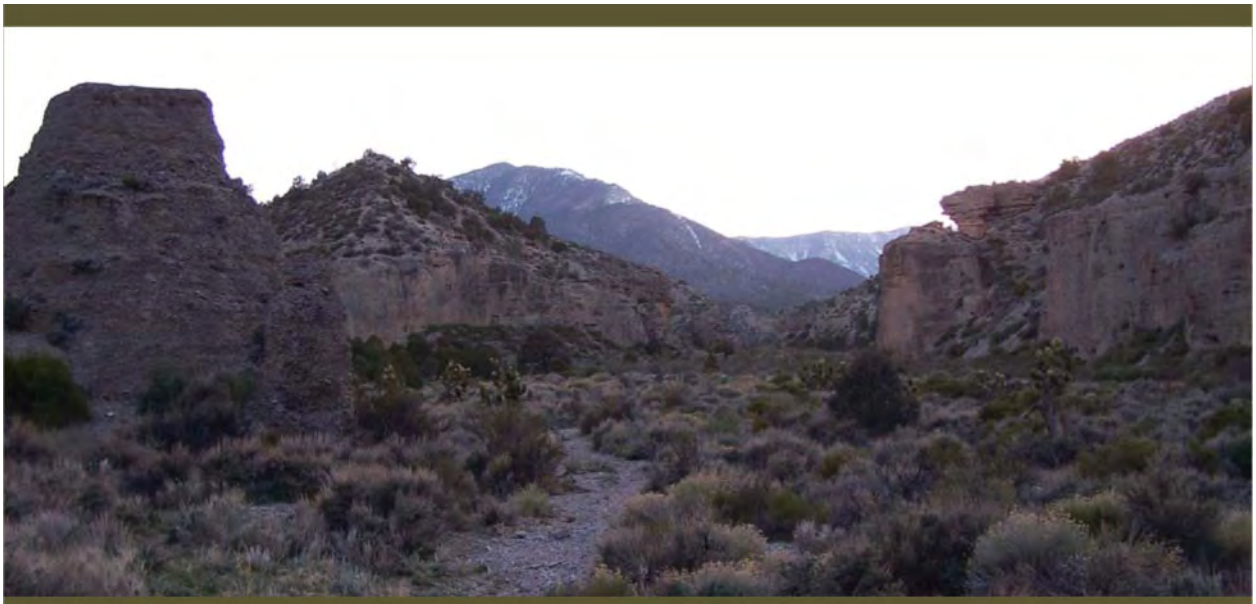
The Village: The facilities at the Village would include similar facilities described for the Proposed Action with the following differences: the new Visitor Center would be smaller in size; there would be no residential space (security/artist-in-residence); the plaza area would be reduced in size by approximately 20,000 square feet; there would be no outdoor classrooms and instead the proposed amphitheater would be used for educational programs; the separate building for meeting space, retail shops and food vendors would be eliminated (space for one retail/gift/sundry and small café would be included in visitor center building); a separate education facility may be included; the amphitheater would be downsized to accommodate 150 persons; a single 50-person group picnic site would be provided; a surface parking lot rather than an underground parking structure would be constructed; a bus stop and space for a future transit center would be provided; the main multi-use trail east of the Village leading to the main picnic and camping area would be located within SR 157 right-of-way to avoid the need for right-of-way across private land. The biomass heating/cooling facility would not be constructed under this alternative.

This alternative proposes moving the Village area adjacent to and on both sides of SR 157, in essence making the highway the "main street" of the village. Traffic calming devices and/or a roundabout would be constructed on SR 157 to reduce traffic speeds through the Village area. The construction of a roundabout on SR 157 at this location would require granting additional easement width to NDOT. A pedestrian crossing on SR 157 would be added in this area.

The Valley: The actions proposed at the Valley area are similar to those described in the Proposed Action with the exception that the outdoor classrooms would be eliminated, only a few picnic sites adjacent to primary Valley attractions would be constructed, and there would be no designated snow play area. Limited snow-play would be available only when suitable natural conditions exist on site and provide the opportunity.

Main Camping and Picnic Area: The picnic area would be downsized to a single picnic loop without group sites. A disc golf course may be constructed east of the picnic area. The total number of camping units would be reduced. Two styles of campgrounds are proposed for construction under this alternative, a commercial-style campground and traditional Forest Service-style campground. The campground located nearest the entrance and registration area would be a commercial-style campground with approximately 144 sites located in a concentrated area and would include a smaller campground for workers. A conceptual layout of a commercial-style campground is shown on Figure 2-7. A Laundromat would be constructed near the camp store. An earthen berm would be constructed and act as a sound barrier between the commercial-style campground and SR 157. An irrigated grassy play area, splash pad, playground, small amphitheater, and multi-use playing field are proposed east of the commercial-style campground. The easternmost campground would be constructed in the traditional Forest Service style with two camping loops including tent and RV sites with hook-ups and a small amphitheater. No group camping sites are proposed under this alternative. A new trailhead is proposed east of the traditional-style campground and would connect to trails in the canyon bottom and Harris Springs Road area. The registration and entrance station layout would be revised to accommodate larger Class A RV vehicles in the

proposed commercial-style campground, and the RV dump station would be located in this area instead of within the fee area. The helipad and firefighting support facilities would be located east of the campgrounds and south of SR 157 instead of in the Northern Area. The proposed sewage treatment facility and lagoons would also be located in this area.



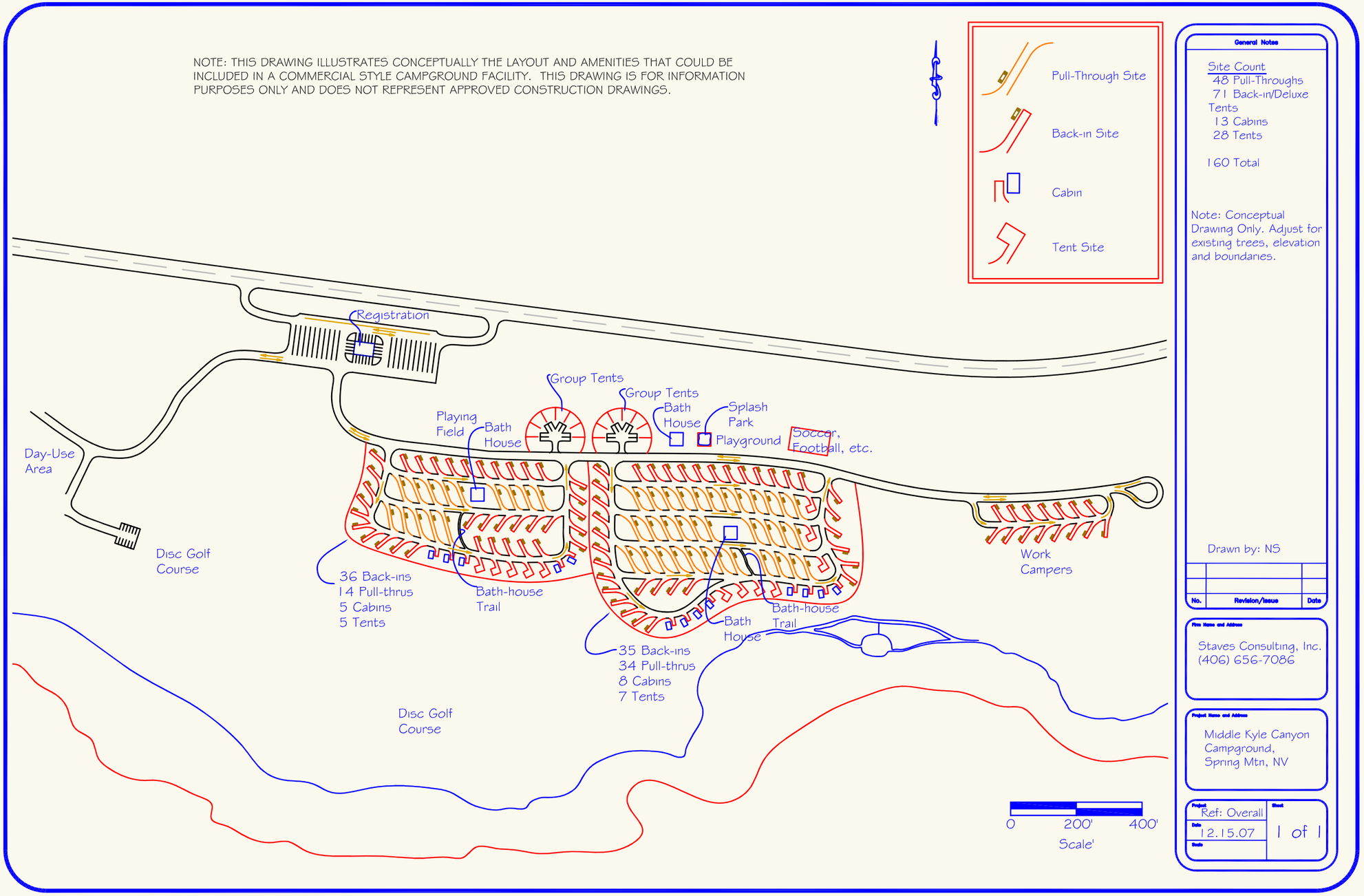
View from proposed canyon bottom trail as it exits the slot canyon.

Northern Area: Proposed facilities located north of SR 157 would include similar facilities and actions described for the Proposed Action with the following differences: There would be no horse rental concession or equestrian campground and no trail connecting the equestrian facilities identified in the Proposed Action; there would be no pedestrian/equestrian crossing on SR 158 and no connection to the new loop added to the Fletcher Canyon Trail; and there would be no OHV trailhead constructed.

Under the Market Supported Alternative, Forest Service administrative facilities in the Northern Area are in different locations than in the Proposed Action and would include fire and administrative office/warehouse and employee housing buildings. The employee housing buildings proposed for this area would include duplexes, barracks, trailer pads, and an outdoor play area. The separate research facility would not be constructed. The helipad would be constructed south of SR 157. A wildlife rehabilitation facility is proposed north of the access gate on Telephone Canyon Road. The biomass heating/cooling facility would not be constructed.

Under this alternative the access road off SR 157 to the NDOT maintenance station would not be realigned. The solid waste transfer station would remain in its existing location; however a new access road would connect this site to the main administrative road. The existing access road would be removed and revegetated.

NOTE: THIS DRAWING ILLUSTRATES CONCEPTUALLY THE LAYOUT AND AMENITIES THAT COULD BE INCLUDED IN A COMMERCIAL STYLE CAMPGROUND FACILITY. THIS DRAWING IS FOR INFORMATION PURPOSES ONLY AND DOES NOT REPRESENT APPROVED CONSTRUCTION DRAWINGS.



General Notes

Site Count
48 Pull-Throughs
71 Back-in/Deluxe Tents
13 Cabins
28 Tents

160 Total

Note: Conceptual Drawing Only. Adjust for existing trees, elevation and boundaries.

Drawn by: NS

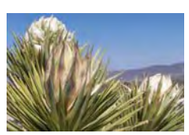
No.	Revision/Issue	Date

Firm Name and Address
Staves Consulting, Inc.
(406) 656-7086

Project Name and Address
Middle Kyle Canyon Campground, Spring Mtn, NV

Project: Ref: Overall
Date: 12.15.07
Scale:
Sheet: 1 of 1

Spring Mountains National Recreation Area Market, Financial and Operational Analysis, Volume 2, Appendix H (PwC 2008)



MIDDLE KYLE COMPLEX

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FIGURE 2 - 7: MARKET SUPPORTED ALTERNATIVE

CONCEPTUAL LAYOUT FOR COMMERCIAL STYLE CAMPGROUND

Eastern Area: Facilities proposed for the Eastern Area include similar facilities considered under the Proposed Action with the following differences: the new trailhead east of the Forest Service-style campground would lead to a proposed trail with a bridge connecting the Rim Trail to the trail system to the southeast. There would be no mountain bike rental/concession and both trailheads parking areas and access roads would not be paved; utilities (including water, sewer and electricity) would not be extended to this area, although there would be a vault toilet at each trailhead; the paved hiking and biking trail near Kyle wash would not be constructed; and Harris Springs Road improvements would not be constructed.

Other Actions: Other proposed facilities and actions considered under the Market Supported Alternative are similar to the other actions described under the Proposed Action. Additionally, under this alternative the water system for all proposed facilities east of the Western Area would be connected to an existing commercial water system (the Mt. Charleston Water Company [MCWC]). These changes would include connecting the two existing Forest Service wells to the MCWC system. The water storage tank in Telephone Canyon would not be constructed; however, a smaller water storage tank located on private land adjacent to an existing MCWC storage tank may be constructed. The sewer system under this alternative would consist of a sewer collection system with a central waste treatment facility.

Under the Market Supported Alternative, the Forest Service may also implement the following administrative action that includes approximately 4,900 acres outside of the Middle Kyle Complex project area as shown on Figure 1-4:

- Dispersed vehicle camping would be prohibited within 300 feet on either side of Forest Service roads and trails open to motorized vehicles, trailheads, county roads, and state highways within the Lee Canyon, Kyle Canyon, and Deer Creek areas of the SMNRA, including connecting and tributary Forest Service routes such as those in the Macks Canyon and Harris Springs areas.

Construction of the Market Supported Alternative is anticipated to begin within 1 year after publication and circulation of this EIS and Record of Decision. Design and construction of the Market Supported Alternative may occur in phases over a period of 15 years. SNPLMA funding would support the majority of the costs of design and construction of the Market Supported Alternative.

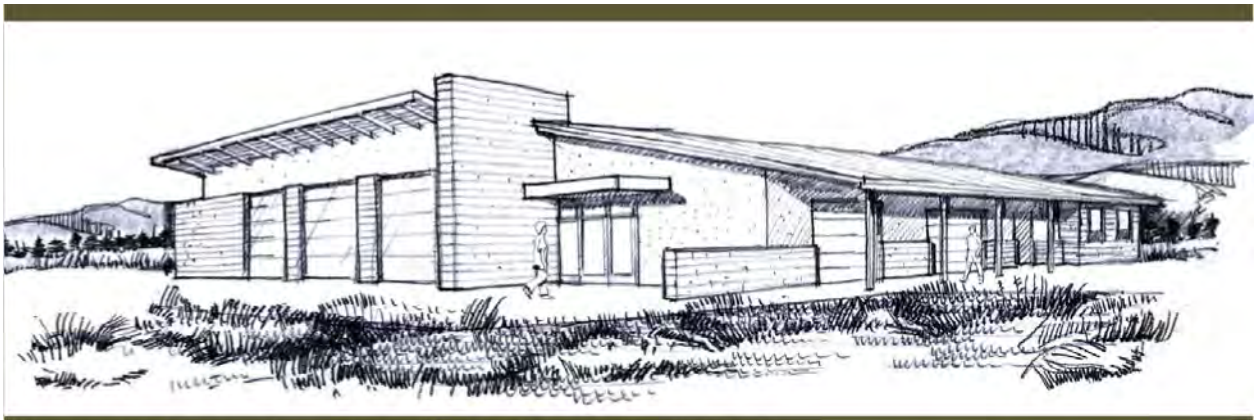
2.3 Summary Comparison of Alternatives

This section compares the project components by alternative and the effects of implementing the alternatives presented in this chapter. Table 2-1 summarizes and compares the design and operational features considered under the alternatives in detail. For expanded detail on the information presented in Table 2-1, see Appendix B.

Table 2-2 compares the effects that the No Action Alternative, Proposed Action, and Market Supported Alternative would have on the significant issue identified

in Section 1.7.1, *Significant Issues*. Mitigation measures designed to minimize the impact on the resource/issue are also included in this table.

Table 2-3 compares the effects of implementing each alternative. Information in the table is focused on activities and effects where different levels of effects or outputs can be distinguished quantitatively or qualitatively among alternatives.



Conceptual sketch of the new maintenance facility (SMNRA Built Environment Image Guide, 2007).

Table 2-1. Summary Comparison of Alternatives

Land Use Type/Activity	No Action Alternative	Proposed Action	Market Supported Alternative
SITE INTERPRETATION AND EDUCATION			
Kyle Canyon Interim Visitor Center	Yes, at current location (800 square feet)	Removed	Removed
Kyle CCC Camp/Fletcher Canyon Trailhead	Yes (current configuration and uses retained)	Yes (historic buildings restored and converted to public use, non-historic buildings removed)	Yes (same as Proposed Action, plus trailhead relocated off SR 157 and enlarged parking area)
▪ Outdoor Classroom/Amphitheater	No	Yes (1)	Yes (1)
▪ Play Area	No	No	Yes (1)
▪ Picnic Area	No	Yes (4 single sites[1], included in tally below)	Yes (4 single sites, included in tally below)
Village (Indoor Facilities)	No	Yes	Yes
▪ Visitor Center with Bookstore	No	12,000 square feet	10,000 square feet
▪ Meeting Space, Retail Space with Rentals, and Food Area	No	Yes (separate 4,200-square-foot building with meeting space, 4 to 6 retailers, 3 food vendors)	Yes (1 retail/sundry/gift space and 1 cafe included in visitor center space above)
▪ Artist-in-Residence	No	Yes (separate 2,400-square-foot building including security)	No
▪ Transit Center Building	No	Yes, 2,000-square-foot building	No, but space reserved for future building
Village and Valley(Outdoor Facilities)	No	Yes	Yes
▪ Plaza Area	No	60,000 square feet	40,000 square feet
▪ Landscape and Play Space	No	40,000 square feet	40,000 square feet
▪ Village Amphitheater	No	1 (1,500 capacity)	1 (150 capacity)
▪ Outdoor Classroom	No	3 (located in Village and Valley areas)	1 (at Village amphitheater space)
▪ Commons (Multipurpose Green Space)	No	4.25 acres	4.25 acres
▪ Exterior Interpretive Exhibits	No	2,000 square feet	2,000 square feet
▪ Education Facility	No	No	Yes
▪ Parking	No	Yes, 1,300 +/- garage and surface parking	Yes, 250 +/- surface parking
Improved Wayfinding System	No	Yes	Yes

Land Use Type/Activity	No Action Alternative	Proposed Action	Market Supported Alternative
PICNICKING FACILITIES			
Picnic Sites–Individual (see notes at end of table for site/unit definition)	No	89 sites/136 units (42 single, 47 double)	46 sites/69 units (23 single, and 23 double)
Picnic Sites–Group	No	6 group sites (4 50-person, 2 25-person)	1 group site (1 50-person group)
CAMPING FACILITIES			
Dispersed Camping	Yes	No	No
Kyle Canyon Campground–RV/Tent	26 sites/32 units (20 single, 6 double)	29 sites/38 units (21 single, 7 double, 1 triple)	29 sites/40 units (16 single, 7 double, 1 triple, 3 single camp cabins, 2 double camp cabins, 1 play area)
RV Dump Station	No	Yes	Yes
Registration area with camp store	No	Yes	Yes, with parking for Class-A RVs
Campground–Individual RV/Tent	No	211 sites/291 units (167 single, 35 double, 9 triple), with small amphitheater	48 sites/62 units (36 single, 10 double, and 2 triple), with small amphitheater
Campground–Small Group RV	No	10 sites	No
Campground–Large Group Tent	No	100 sites (2 areas, 50 sites each)	No
Campground–Equestrian	No	10 sites	No
Commercial Style Campground– capable of accommodating Class-A RVs	No	No	144 sites (71 back-in sites, 48 pull-thru sites, 12 tent sites and 13 camp cabins; with 15-unit workers' camp)
▪ Camp Store and Laundromat	No	No	1
▪ Frisbee Golf	No	No	1
▪ Splash Pad	No	No	1
▪ Small Amphitheater	No	No	1
▪ Playground	No	No	1
▪ Playing Field (Multi-Use)	No	No	2
MISCELLANEOUS FACILITIES/USES			
Horse Corral	No	2	1
Equestrian Rental Building/Facility	No	Yes	No

Land Use Type/Activity	No Action Alternative	Proposed Action	Market Supported Alternative
Designated Winter Snow Play Area	No	Yes, sledding hill	No, limited and only when suitable natural conditions exist
Mountain Bike Rental Building	No	Yes	No
TRAILS			
Non-motorized multi-use trails (Hiking, Biking, Equestrian)	Yes	Yes	Yes
▪ Designated Hiking Only Trails	No	8.6 miles	8.6 miles
▪ Designated Biking Only Trails	No	2.8 miles	2.8 miles
▪ Designated Equestrian/Hiking Trails	1.6 miles	6.0 miles	4.2 miles
▪ Designated Hiking/Biking Trails	No	17.4 miles	16.4 miles
▪ Designated Hiking/Biking/Equestrian Trails	No	13.3 miles	11.8 miles
▪ Designated Trailheads	1 total	6 total (5 new, including 1 OHV)	5 total (5 new, no OHV trailhead)
▪ Slot Canyon Bridge	No	No	Yes
Motorized Trails	1.4 miles	0 miles	0 miles
Motorized Trails Closed/Restored[2]	0 miles	1.4 miles	1.4 miles
Unauthorized Trails	16.0 miles	0 miles	0 miles
ROADS			
NFS Roads – unsurfaced	12.9 miles	0.3 mile	0.6 mile
NFS Roads – paved	0.7 mile	17.1 miles	12.2 miles
NFS Roads – closed/restored	0 mile	5.2 miles	5.2 miles
NFS Roads – converted to trail	0 mile	6.0 miles	5.6 miles
County Road-unsurfaced	1.2 miles	0.5 mile (0.7 mile paved)	1.2 miles
Unauthorized Roads	6.9 miles	0 miles	0 miles
ADMINISTRATIVE AND INTERAGENCY FACILITIES/USES			
Forest Service employee housing	3 single-family residences, 1 12-person barracks, 5 trailer pads	3 single-family residences, 1 12-person barracks, 8 trailer pads	4 duplex houses, 2 12-person barracks, 8 trailer pads

Land Use Type/Activity	No Action Alternative	Proposed Action	Market Supported Alternative
Forest Service administrative facilities	Forest Service would continue to operate out of existing facilities.	Administrative office space included in interagency fire facility space below. Includes space for Forest Service law enforcement.	8,200-square-foot Forest Service administrative office with 5,000-square-foot warehouse
Interagency Fire	Nevada Division of Forestry, Clark County Fire Department, and Forest Service would continue operating out of separate existing facilities.	10,000-square-foot interagency fire facility for Nevada Division of Forestry, Clark County Fire Department, and Forest Service fire crews	13,400-square-foot interagency fire facility for Nevada Division of Forestry, Clark County Fire Department, and Forest Service fire crews
Interagency Law Enforcement	Las Vegas Metro, Nevada Highway Patrol, and Forest Service would continue operating out of separate existing facilities.	Relocate Las Vegas Metro facility to location near Forest Service and interagency fire facility. Nevada Highway Patrol operations would be same as No Action Alternative.	5,000-square-foot interagency law enforcement building for Las Vegas Metro, Nevada Highway Patrol, and Forest Service law enforcement
Helipad	1	2	1
Concessionaire Office	No	Yes, 2,000-square-foot office	Same as Proposed Action
Research Center	No	Yes, 3,000-square-foot office	No separate building; office space provided in Forest Service administrative office space above
RESTORATION AND VEGETATION TREATMENTS			
Kyle CCC Camp Restoration	0 acres	1.4 acres	1.2 acres
Fletcher Canyon Trailhead Parking Restoration	0 acres	0 acres	0.1 acre
Valley (former golf course) Restoration	3.0 acres (includes some restoration in Village area)	2.7 acres	2.7 acres
Northern Area Restoration	0 acres	8.0 acres	7.6 acres
Dump Removal and Restoration	0 acres	0.9 acre	0.9 acre
Closed Designated Routes[3] Restored	0 acres	6.7 acres	6.7 acres
Closed Unauthorized Routes Restored	0 acres	15.9 acres	15.9 acres
Vegetation Treatment	Maintain vegetation in existing developed sites with limited treatments, e.g., removal of hazard trees	Vegetation treatment and management plan would be implemented	Same as Proposed Action

Land Use Type/Activity	No Action Alternative	Proposed Action	Market Supported Alternative
OTHER ACTIONS AND PERMITTED USES			
Right-of-Way (ROW) Acquisitions Needed	No	Yes, 1 road ROW (0.09 acre), 1 trail/utility ROW (0.32 acre)	Yes, 1 road ROW (0.09 acre)
Public Utility Company Affected	No	Yes, 2 utilities—NV Energy and Embarq	Yes, 2 utilities—NV Energy and Embarq
Water Systems	Western Area – Las Vegas Valley Water District (LVVWD)	Western Area – LVVWD Other Middle Kyle Complex Project Areas – Forest Service water system	Western Area – LVVWD Other Middle Kyle Complex Project Areas–Mt. Charleston Water Co.
Wastewater Systems	Maintain existing septic tank/leachfield systems	New uses placed on septic tank/leachfield systems	Sewage collection system with central waste treatment plant
Public Road Agencies Affected	No	Yes, NDOT and Clark County	Yes, NDOT
Permitted Uses			
▪ Clark County/Republic Services Solid Waste Transfer Station	No change to existing permit	Permit cancelled, site rehabilitated	Permit reissued at current location with modifications
▪ Las Vegas Metro Substation	No change to existing permit	Permit reissued at new location	Permit cancelled, space provided at proposed interagency law enforcement building
▪ Wildlife Rehabilitation Facilities	No	No	Yes

Notes:

[1]When referring to picnic or camp sites, a "site" is an individually developed area that may be a single unit, double unit or triple unit. The term "unit" refers to the number of family units at a site. For example, a triple unit would have parking space for three vehicles, three picnic tables, and three tent pads at a single location, and would be counted as three units.

[2]The terms "restored" and/or "restoration" used throughout this EIS refer to rehabilitation activities that may vary in intensity depending on the land use impacts and resources affected: it can range from a simple road or trail closure left to revegetate on its own through natural processes, to full recontouring and revegetation with erosion control measures. The intensity of restoration that would be implemented will be determined in the design process and is not identified in the EIS.

[3]The term "route" refers to both trails and roads, e.g., motorized NFS routes would include both NFS roads and motorized NFS trails.

All quantities presented in this table are approximate; actual quantities may vary after final design and site layout has been completed. Information presented in this table is a summary detail only. For additional information refer to the alternative descriptions and figures provided in this chapter and Appendix B, *Detailed Comparison of Alternatives*. Quantities provided in this table are for the Middle Kyle Complex boundary area shown on Figure 1-2.

Table 2-2. Issue Comparison by Alternative

Measure or Mitigation	No Action Alternative	Proposed Action	Market Supported Alternative
ISSUE 1 Construction and use of the proposed Kyle Canyon Wash Trail from Kyle Canyon Campground to the Village through Spring Mountains acastus checkerspot butterfly (*Chlosyne acastus robusta*) habitat may adversely impact this species.			
Measure—Area of known foraging habitat within the Kyle wash and adjacent habitat that would experience impacts due to the project:	The dispersed recreational use of Kyle wash downstream from the Kyle Canyon Campground would continue; however, the acreage is unquantified.	Temporary: 2.0 acres Permanent: 1.30.0 acres (includes approximately 29.4 acres of the former golf course property)	Same as the Proposed Action.
Measure—Acres of known mate selection habitat within the Kyle wash that would experience impacts due to the project:	No change to existing condition.	Temporary: 0. 7 acre Permanent: 0.6 acre	Same as the Proposed Action.
Measure—Description of threats to resource due to construction and operations of the project:	No change to existing condition. Impacts would continue to occur, including dispersed recreation use and creation of new unauthorized trails within important host and nectar plan populations.	Construction: equipment noise, vibration would disturb mate selection. Operations: increased public use, recreational activities on and off-trail would disturb mate selection; hiking would trample host plants. This alternative has the highest potential to impact foraging habitat and mate selection habitat from increased recreation use as it has the highest level of development and parking capacities. This alternative includes some beneficial effect by expanding linear habitat in the mate selection area through planned restoration in the Valley area and at Kyle CCC Camp.	Construction: equipment noise, vibration would disturb mate selection. Operations: increased public use, recreational activities on and off-trail would disturb mate selection; hiking would trample host plants. This alternative would have less impact on foraging and mate selection habitats from increased recreation use than the Proposed Action due to a lower scale of development, but would have more impact than the No Action Alternative. This alternative includes some beneficial effects through restoration in the Valley area and at Kyle CCC Camp at a level slightly higher than the Proposed Action.
Design Criteria		Design criterion W5 (see Table 2-4) incorporated in action alternatives to minimize effects from construction activities.	
Mitigation		Install permanent fence at Kyle Canyon Campground to funnel trail users onto the Kyle Canyon Wash Trail, including fence along the first 100 feet of the trail. Monitor recreation use of the Kyle Canyon Wash Trail in the mate selection habitat area for impacts off the designated trail and install additional fence sections if necessary to prevent impacts from user-created trails.	

Table 2-3. Summary Comparison of Effects by Alternative

	No Action Alternative	Proposed Action	Market Supported Alternative
RECREATION			
Quantity and Diversity of Recreation	This alternative provides visitors to the project area with the lowest quantity and diversity of recreation facilities. Picnicking would continue to occur in developed and dispersed areas. Kyle Canyon Campground would continue to provide camping, but would not be reconstructed. Fletcher Canyon Trail (1.6 miles) and trailhead would be maintained for hiking and equestrian use.	This alternative offers an increased diversity of recreation opportunities (Table 2-1) in developed settings with group picnic and campgrounds, an equestrian campground, OHV trailhead and 48 miles of non-motorized multi-use trails. Equestrian and mountain bike rental facilities would also be available.	This alternative offers a diverse range of developed recreation opportunities; however, the capacity of the facilities would be smaller than in the Proposed Action (Table 2-1). Facilities proposed include one group picnic site, no group campgrounds, camp cabins, a commercial campground capable of accommodating Class A RVs, no OHV trailhead and 44 miles of non-motorized multi-use trails. Rental facilities are not included.
	Dispersed camping would continue alongside roads and motorized trails.	The Forest Service may implement an administrative action that would prohibit dispersed camping within 300 feet on either side of Forest Service roads and trails open to motorized vehicles, trailheads, county roads, and state highways within the Lee Canyon, Kyle Canyon, and Deer Creek areas of the SMNRA, including connecting and tributary Forest Service routes such as those in the Macks Canyon and Harris Springs areas.	Same as the Proposed Action.
	Unauthorized trails and roads would remain undesignated and may be closed as necessary to reduce or prevent resource damage. Hunting and trapping would continue to occur in the project area, as permitted by Nevada Department of Wildlife (NDOW) and Nevada Revised Statutes (NRS). Recreational shooting of firearms (e.g., target practice) would continue to occur.	Opportunities for dispersed unmanaged recreation activities in undefined areas in the project area would be reduced. Unauthorized trails and routes in the project area would be closed and restored or converted to designated uses. Much of that use would be redirected to the developed facilities proposed for construction, while some users would likely be displaced to other areas of the SMNRA. Shooting of firearms would also be redirected to other areas of the SMNRA as permitted by NDOW and NRS due to the prohibition on discharging firearms near developed	Same as the Proposed Action.

	No Action Alternative	Proposed Action	Market Supported Alternative
		recreation and Forest Service facilities. Hunting and trapping within the project area would continue as permitted by NDOW and the NRS and as allowed under 36 CFR 261Subpart A 261.10 (d)(1and 2).	
Safety and Accessibility for Persons with Disabilities and the Elderly	Visitor safety and accessibility are compromised due to the unstructured nature of the recreation facilities and uses. Many of the existing facilities and services do not meet the standards set forth by the Forest Service Outdoor Recreation Accessibility Guidelines (FSORAG) or Forest Service Trail Accessibility Guidelines (FSTAG). There are no trails outside of the existing developed areas accessible to people with disabilities or the elderly.	Visitor safety and accessibility would be improved with defined structures, facilities, and uses. New recreation facilities would meet accessibility standards set forth by FSORAG and FSTAG. Existing facilities would be upgraded to the extent practicable to meet these same standards. Accessibility to recreation resources would be increased for a wide variety of skill and ability levels. Trails would be designed to meet the needs of different user groups including people with disabilities and the elderly.	Same as the Proposed Action.
	Passenger car access would continue to be limited to the existing developed sites and trails immediately accessible from the highway. Safety of existing unauthorized trail infrastructure is compromised due to the improvised nature of many of the facilities, lack of designated use areas, and limited information. Lack of trail use designations has led to unsafe conditions and user conflicts.	All newly developed recreation facilities would have high standard road access, allowing for safe travel by all types of passenger vehicles. Trails would be designated, designed, and managed for appropriate mixes or individual user groups to enhance safety. Conflict between non-motorized and motorized trail users would be limited. Trails and roads would be signed and designated uses clearly identified. Information kiosks with trail maps and mileages would be posted at trailheads.	Same as the Proposed Action.
Recreation Opportunity Spectrum (ROS)	The majority of the project area, accessed via SR 157 and SR 158, has been inventoried as Roaded Natural. Some outlying areas, including areas east of Telephone Canyon Road, fall within the Semi-primitive Motorized category. These classifications would remain under the No Action Alternative.	Implementation of the Proposed Action would expand the ROS spectrum to include the Rural and Urban classifications for the developed areas. The developed areas (Village, Valley, and Northern Area) are located on land already disturbed by the abandoned golf course and located in an area where development is already present with the existing hotel and condominium. The remainder of the project area, would have less developed facilities (trails and trailheads) or no facilities, and would still provide a Roaded Natural recreation setting.	Same as the Proposed Action. However, the smaller size of the Village and the smaller facilities would make it feel less urban, but it would still be a developed area. Conversely, the commercial-style campground would be more developed than the campground in the Proposed Action, but it would still generally fall within the Rural classification.

	No Action Alternative	Proposed Action	Market Supported Alternative
BIOLOGICAL RESOURCES			
General Biological Resources	The project area would continue to be used for dispersed recreation resulting in adverse impacts on individual plants and degradation of wildlife habitat.	Approximately 425 acres of permanent and approximately 653 acres of temporary construction disturbance would occur on wildlife and plant habitat.	Approximately 331 acres of permanent and approximately 579 acres of temporary construction disturbance would occur on wildlife and plant habitat.
Federally Listed Threatened, Endangered or Candidate Species	No Effect.	No Effect.	No Effect.
Regional Forester's (R4) List of Sensitive Species for the Toiyabe National Forest	The project area would continue to be used for dispersed recreation resulting in adverse effects on individual plants and degradation of wildlife habitat.	May affect individuals of eight species, but is not likely to cause a trend to federal listing or loss of viability.	Same as the Proposed Action.
Conservation Agreement and MSHCP Covered Species	The project area would continue to be used for dispersed recreation resulting in adverse effects on individual plants and degradation of wildlife habitat.	The Proposed Action would adversely affect habitat of 19 species, but would not affect species viability. The Proposed Action would adversely affect individual plants and habitat of four species, but would not affect the species viability.	Same as the Proposed Action.
Management Indicator Species of the SMNRA	The project area would continue to be used for dispersed recreation resulting in adverse effects on individual plants and degradation of wildlife habitat.	Not expected to adversely affect six species viability. Beneficial habitat changes could increase the population of three species.	Same as the Proposed Action.
CULTURAL RESOURCES			
	Effects on historic properties would continue as they have in the past. Cultural resource sites located in areas where recreational use occurs would continue to be affected by trampling, soil erosion, vertical and horizontal artifact displacement, and artifact breakage. Vandalism, site disturbance and artifact collection would continue to	Recommendations for National Register of Historic Places (NRHP) eligibility have been generated so that impacts on eligible sites could be assessed. Evaluation and assessment of effects on cultural resources with the Nevada State Historic Preservation Office (SHPO) and culturally affiliated tribes is ongoing and would continue through project implementation. The Kyle CCC Camp was previously determined eligible for the NRHP and four newly	Effects on cultural resources under this alternative would be similar to those of the Proposed Action. Slot canyon trail bridge construction and the commercial-style campground were identified by the Nuwuvi Working Group as areas of high concern regarding impacts on the landscape.

	No Action Alternative	Proposed Action	Market Supported Alternative
	occur as a result of the dispersed nature of recreation activities in the project area. The historic structures at the Kyle CCC Camp would remain in the same location and setting. Existing non-historic structures would remain in the same location and existing Forest Service functions in this area would continue.	recorded sites have been recommended eligible for the NRHP. Effects on cultural resources are anticipated to result from construction of proposed facilities in the form of vertical and horizontal displacement and artifact breakage. Recreational activities may also result in trampling, breakage, vandalism, site disturbance and artifact collection and removal. Dispersed recreation in the project area would be reduced and effects on cultural resources associated with this type of use would also be reduced. This is a sacred landscape to Nuwuvi people. The proposed activities and development in general would not be culturally compatible in areas of Nuwuvi significance, and would have an adverse impact on the landscape. Under this alternative, the historic structures located at the Kyle CCC Camp would be restored and maintained for managed public use as a historic site. Non-historic structures would be removed and the areas restored. The Forest Service and the Nevada SHPO have developed a Programmatic Agreement that will guide Section 106 of the National Historic Preservation Act (NHPA) consultation between the Forest Service, Nevada SHPO, and culturally affiliated tribes throughout project design and construction. In addition, the agreement will guide the development of any cultural resource mitigation identified through the Section 106 consultation process.	This alternative is anticipated to attract fewer visitors than the Proposed Action and, therefore, operational impacts on cultural resources would be less.

	No Action Alternative	Proposed Action	Market Supported Alternative
VISUAL RESOURCES			
Effects on Inventoried Visual Quality Objective (VQO) Zones	For the most part there would be no change in existing Retention and Partial Retention VQOs. Lands within the project area fall within three inventory VQO classes: Preservation, Retention or Partial Retention. However, views of the 128-acre former golf course property would not achieve the Retention VQO and would be consistent with the Modification VQO. Restoration of the former gold course property would allow for a higher VQO to be met over time.	The effects on the visual character would be adverse because of the increased amount of apparent landscape alterations associated with the new recreation and administrative facilities. Proposed trail networks would negatively impact visual quality objectives on lands inventoried as Retention and Partial Retention. However, roads and trails (authorized and user created) already exist and reducing the width of existing roads and trails when converted to non-motorized trails would reduce the visual impact of these existing roads and trails. The majority of the development would occur within areas inventoried as Retention. Developed facilities such as the Village, Main Camping and Picnic Area, and the Northern Area could affect views from primary viewpoints or from SR 157. Therefore, the Retention VQO would not be met and the Modification VQO would be maintained.	The qualitative nature of the effects on the visual character would be the same as the Proposed Action except for the following: ▪ The wildlife rehabilitation center is located on land inventoried as Partial Retention. The visual effect of this facility would not exceed the thresholds set by the Partial Retention VQO. ▪ A general downsizing of recreation facilities would reduce the extent of the associated landscape alterations. ▪ The commercial campground would create a more intensively developed area but would cover a smaller area than the campgrounds in the Proposed Action.
Effects on Natural Landscape Character	There would be no effect on the natural landscape character including the high desert shrublands, low conifer zone, or forest zone.	There would be no major changes to the overall natural landscape character in the project area. Localized effects on landscape character would be greatest in the low conifer zone, where the majority of the development would occur. Changes to existing landscape character in this zone would be evident from SR 157 and SR 158. The most obvious change would be the more developed nature of the Village area and other nearby facilities. While restoration and revegetation efforts would have a moderate beneficial effect on natural landscape character, the more urban character of the Village would be the most obvious	Same as the Proposed Action, with the exception that the denser, more developed character of the commercial campground would create a more urban zone than the traditional Forest Service-style campgrounds in the Proposed Action. The more urban character of the commercial campground would be most visible from the viewpoints along SR 158.

	No Action Alternative	Proposed Action	Market Supported Alternative
		change. Proposed facilities in high desert shrubland areas would be mostly trails, which would result in a negligible effect on the natural landscape character. Developments in the forest zone would also be minimal, with little or no effect on landscape character. The Forest Service acknowledges that all new construction would have a degree of impact on the American Indian experience of viewscapes and isolationism. In the design and construction phases of the Middle Kyle Complex, consultation will be conducted with culturally affiliated American Indian nations to ensure that these impacts are mitigated where and when feasible.	
COMPLIANCE WITH THE GENERAL MANAGEMENT PLAN (GMP) FOR THE SMNRA			
GMP Standard 0.31	No construction would occur within the 100-yard buffer zone of potential habitat for rough angelica in compliance with the GMP.	A project-specific amendment to the GMP would be required. Approximately 4 acres of permanent and approximately 17 acres of temporary construction disturbance would occur on potential rough angelica habitat.	Same as the Proposed Action, with the exception that an additional approximate 0.5 acre of potential rough angelica habitat would be disturbed on both a permanent and temporary basis.
GMP Guideline 11.71	The Harris Springs site would continue to be available for permitted designated group use, including blackpowder shooting and other uses in compliance with the GMP.	A project-specific amendment to the GMP would be required. Construction of recreation facilities at the Harris Springs site would not comply with Guideline 11.71. Construction of these facilities would eliminate use of this area for permitted designated group uses, including blackpowder shooting.	Same as the Proposed Action.

2.3.1 Design Criteria and Mitigation Common to All Alternatives

The Forest Service developed design criteria and minimization measures to be implemented under the Proposed Action and Market Supported Alternative in order to minimize the environmental impact of any action on the project area. The design criteria common to all alternatives are displayed in Table 2-4.

Mitigation measures were identified to minimize the significant effects of specific actions on resources. The comparison of effects with and without implementation of mitigation measures is disclosed in Chapter 3. Proposed mitigation measures are listed in Table 2-5.

Table 2-4. Design Criteria Common to Action Alternatives

Resource	Objective	Location	Number	Design Criteria
Air Quality	Minimize Criteria Pollutants (PM_{10}, $PM_{2.5}$, CO, VOC, NO_x, SO_2, CO_2)	Project area	AQ1	▪ Treatments for construction slash, stumps, and logs to utilize chipping, burial, and/or removal methods; pile and burn disallowed. ▪ Comply with applicable best management practice dust control measures in the Dust Control Plan (Humboldt-Toiyabe National Forest 2003) and the CCDAQEM Construction Activities Dust Control Handbook. ▪ Biomass heating /cooling systems will utilize clean woodchip/pellet fuel stocks free of extraneous debris and garbage. ▪ Design and construct new motorized public access roads in compliance with CCDAQEM Air Quality Regulations, Section 91.
Botany	Ensure impacts on sensitive plants are minimized by clearly defining construction areas.	General project area other than trail construction.	B1	▪ Construction areas, other than trails, will have temporary fencing erected along the construction limits of proposed improvements prior to any ground-disturbing activities. Construction limits will be established to minimize ground disturbance. Contractor will be required to contain all construction activities within the approved construction limits and maintain temporary fencing until notified by the Contracting Officer.
	Minimize impacts on succulents.	Project area	B2	▪ Joshua tree (*Yucca brevifolia*), other yuccas, and cacti located within construction limits that could be affected by construction activities will be flagged and avoided to the extent practicable.
	Emphasize use of native species in the restoration and landscaping of the proposed project area.	Project area	B3	▪ Implement recommendations included in *Vegetation Management Plan for the Kyle Campground, Kyle CCC Camp and the Proposed Middle Kyle Complex*. ▪ Areas near buildings and turf areas may utilize limited amounts of non-native, non-invasive plants to accomplish landscaping goals.
	Minimize impacts on sensitive species and their habitat, and enhance regulatory compliance.	Project area	B4	▪ Upon award of construction contract(s), key construction personnel will receive a briefing regarding the sensitive species and habitats that occur within the project area. This will include providing informational materials to each member of the construction crew relative to sensitive species identification and impact avoidance; methods used in protection of resources, and management requirements.

Resource	Objective	Location	Number	Design Criteria
	Minimize impacts on sensitive plants from trail construction and trail users.	Proposed trail construction in project area	B5	▪ During trail design and layout, proposed trail alignments will be adjusted to the extent feasible to avoid populations of rough angelica (*Angelica scabrida*), Clokey greasebush (*Glossopetalon clokeyi*), inch high fleabane (*Erigeron uncialis* var. *conjugans*) (in stable cliff habitat), Jaeger beardtongue (*Penstemon thompsoniae* ssp. *jaegeri*), Charleston pinewood lousewort (*Pedicularis semibarbata* var. *charlestonensis*), Jaeger's ivesia (*Ivesia jaegeri*), Clokey milkvetch (*Astragalus aequalis*), New York Mountains Catseye (*Cryptantha tumulsa*), and Charleston violet (*Viola purpurea* var. *charlestonensis*, syn. *Viola charlestonensis*).
	This will minimize impacts on sensitive plants, soils, and habitat.	Project area	B6	▪ Vegetation removal around sensitive plants and their habitats will be conducted using appropriate methods and equipment (manual or mechanized).
	Utilization of native plants for restoration and use of seed from plants that would be lost from construction, will maintain the genetic variability of those species in the area.	Project area	B7	▪ Where feasible, collect seed from sensitive plants and other target species from areas that would be directly impacted to use in revegetating restoration areas in suitable habitat. Areas suitable for revegetation will be defined prior to implementation of revegetation/restoration activities in consultation with the SMNRA or Forest Service botanist. The establishment of sensitive and rare plants and host and larval plants for sensitive and rare butterflies in areas of developed landscaping will be considered experimental and educational populations and will not be managed for species viability.
Facility Design	Ensure new and reconstructed facilities reflect the unique settings of the SMNRA and are attractive, functional, and sustainable.	Project area	FD1	▪ Follow guidelines in 2007 *Spring Mountains National Recreation Area Built Environment Image Guide* for the design, construction, and rehabilitation of project facilities. ▪ Follow applicable Forest Service requirements for compliance with U.S. Green Building Council Leadership in Energy and Environmental Design (LEED).
	Ensure new facilities meet required standards.	Project area	FD2	▪ Design new facilities to comply with appropriate Forest Service Manual and Handbook requirements, and applicable codes, regulations, accessibility standards and Executive Orders. ▪ Design primary facilities and infrastructure for year-round use.
	Minimize resource impacts from construction staging areas.	Project area	FD3	▪ Locate/designate construction staging areas in areas where intensive development is planned or in previously disturbed areas designated for restoration.

Resource	Objective	Location	Number	Design Criteria
Cultural Resources	Protect known and undiscovered cultural resource sites.	Project area	HR1	▪ If unanticipated resources are discovered during project implementation, all work will stop in the vicinity, the Contracting Officer will be notified, and work will not resume until cleared by a qualified cultural resources manager. ▪ Design requirements for proposed historic building renovations will be under the direction of an architectural historian and consultation with SHPO will be initiated as required.
Noxious Weeds	Prevent weed introduction and control the spread of invasive and non-native species.	Project area	NW1	▪ Employ Forest Service and Humboldt-Toiyabe National Forest best management practices for weed control.
	Prevent the spread of noxious weeds on disturbed soils.	Project area	NW2	▪ Revegetate temporary disturbance areas at first appropriate opportunity following project work with specified seeding and plantings. ▪ Use weed-free rock sources for any imported soil and aggregate materials. The Forest Service will determine if a source is weed free or not. A list of approved local commercial sources will be included in contract construction documents. ▪ All vehicles and equipment must be pressure washed prior to entering and operating in the project area. Wash areas will be designated and monitored by the Forest Service for 3 years after use of the wash areas for infestation of invasive and noxious weeds. Wash locations would either be areas that will have later project development such as a parking lot, or an area where a small plastic-lined sump can be located to collect washed material if needed. ▪ Minimize soil disturbance within project area by locating equipment staging and material storage areas within previously disturbed areas and/or areas designated for permanent improvements. ▪ Use native plant material and/or noxious weed-free seed material and mulches for rehabilitation, restoration, and when possible/appropriate in landscaping.
	Ensure successful mitigation after project construction is completed.	Project area	NW3	▪ Monitor and treat infestations of noxious weeds following construction activities following mitigations in the Humboldt-Toiyabe National Forest Decision Notice for the Noxious Weed Control Program (1996).

Resource	Objective	Location	Number	Design Criteria
Soils	Minimize soil erosion, maintain soil productivity, prevent soil quality and productivity impacts, and maintain regional soil quality standards.	Project area	S1	▪ Implement best management practices found in the Forest Service 1988 *Soil and Water Conservation Practices Handbook*. ▪ Where appropriate, revegetate closed roads, trails and restoration areas consistent with the *Vegetation Management Plan for the Kyle Campground, Kyle CCC Camp and the Proposed Middle Kyle Complex*.
Visual Quality	Reduce light pollution potential from developed sites.	Project area	VQ1	▪ Utilize appropriate lighting to minimize light pollution and preserve dark skies, as specified under Section A.2, *Light*, in Appendix A of the 2007 *SMNRA Built Environment Image Guidelines.*
	Manage viewshed within project area to retain visual quality objectives.	Project area	VQ2	▪ Take care in the design of facilities in areas of high visibility or high public use. In particular, such areas would include the Village and Valley, which would be major new primary use areas and are also within plain view of the scenic byway, especially from the overlook on SR 158. ▪ Install all new electrical and communication utilities underground where feasible. ▪ Ensure that design and construction of all new government-owned and permitted facilities comply with the 2007 *SMNRA Built Environment Image Guidelines.*
Water	Minimize sediment transport into stream channels during construction.	Project area	WA1	▪ Implement site-appropriate best management practices found in the June 2008 Nevada Contractors Field Guide for Construction Site Best Management Practices. ▪ Implement appropriate principles in the January 2009 Las Vegas Valley Construction Site Best Management Practices Guidance Manual. ▪ Implement best management practices found in the Forest Service 1988 *Soil and Water Conservation Practices Handbook.*
	Prevent structural damage and minimize hazards to public safety from seasonal debris flows.	Project area	WA2	▪ Locate permanent buildings outside the 50-year floodplain of Kyle wash and its tributaries to prevent structural damage and to avoid a hazard to public safety caused by debris and flood flows. ▪ Provide information at appropriate locations to warn visitors of seasonal debris and flood flow hazards.
	Water conservation.	Project area	WA3	▪ Implement appropriate water and waste water conservation design and construction technologies and strategies consistent with LEED and agency Environmental Management System (EMS) goals.

Resource	Objective	Location	Number	Design Criteria
	Minimize impacts on surface and ground water quality.	Project area	WA4	▪ Design, construct, and maintain facilities in compliance with applicable sections of Chapter 24.40 of the Clark County Code, "Storm Sewer System Discharge." Coordinate with Clark County Department of Air Quality and Environmental Management as appropriate. ▪ Comply with EPA Spill Prevention Control and Countermeasures Plan requirements for construction activities. ▪ Follow low-impact development (LID) design practices for storm water management that emphasize the use of naturally occurring and constructed features to reduce the impacts of increased flow rates and volumes associated with increases in impervious area. ▪ Implement grading, drainage, parking, and wastewater system design and construction consistent with 2007 *SMNRA Built Environment Image Guidelines* and appropriate LEED technologies and strategies.
	Compliance with Clark County 208 Area-wide Water Quality Management Plan (WQMP)	Project area	WA5	▪ Coordinate with Clark County Department of Air Quality and Environmental Management for project compliance with Clark County 208 Area-Wide Water Quality Management Plan recommendations and provisions throughout project design and implementation phases as appropriate.
Wildlife	Minimize direct impacts on nesting migratory birds.	Project area and active nest sites	W1	▪ Coordinate with the Forest Service District biologist to identify survey needs for active nesting sites prior to land clearing. If nests are located, or if other evidence of nesting (i.e., mated pairs, territorial defense, carrying nesting material, transporting food, etc.) is observed, a protective buffer as determined by the biologist (the size depending on the habitat requirements of the species and type of construction activities) should be delineated and the entire area avoided to prevent destruction or disturbance to nests until they are no longer active. ▪ Avoid impacts on western burrowing owl during nesting season by establishing an appropriate buffer area around active burrow sites and avoiding the area.
	Limit reduction of important cover/foraging habitat for wildlife (e.g., small mammals, amphibians, reptiles, invertebrates, and neotropical birds).	All known habitat areas within project area	W2	▪ Provide a minimum of five wildlife cover sites per acre within developed or primitive recreation sites by maintaining or adding dead and down wood material or rocks at appropriate locations. ▪ Disturb brush piles prior to removing or burning to encourage wildlife to exit piles.

Resource	Objective	Location	Number	Design Criteria
	Prevent wildlife from becoming trapped in open trenches or excavations during construction.	All known habitat areas within project area	W3	▪ Wildlife escape ramps or ladders would be placed every 200 feet in open utility pipeline trench segments or other excavations during construction to avoid wildlife entrapment. Wildlife escape ramps and ladders may consist of tree branches, wood boards, rock piles, and sloped soil. The escape ramps and ladders should span from trench/excavation floor to top of trench wall, at an incline not exceeding 45 degrees, to facilitate effective wildlife escape. The perimeters of excavations that have side slopes exceeding 45 degrees will be fenced to exclude wildlife or will be covered with plywood or similar material to prevent wildlife falls/entrapment.
	Limit reduction of important nesting/foraging habitat for wildlife (e.g., bats; woodpeckers; chickadees; flamulated, western screech, and pygmy owls; and insects).	All known habitat areas within project area	W4	▪ Retain all standing dead trees, or snags, that do not pose a threat to public safety or extreme fire danger. Snags are retained to provide habitat for cavity-nesting animals and animals that forage on insects living within snags. This criterion applies to Pinyon/Juniper, Mixed Conifer, and Bristlecone Pine land cover associations. ▪ Important wildlife snags will be flagged for retention within all project areas unless they present a falling hazard that could affect private lands, travel corridors, and/or developed facilities.
	Minimize habitat impacts on Spring Mountains acastus checkerspot butterfly species.	Spring Mountains acastus checkerspot butterfly documented breeding/mate selection areas within project area.	W5	▪ Employ construction techniques to minimize temporary disturbance through known Spring Mountains acastus checkerspot butterfly breeding areas. ▪ Prohibit construction of Kyle Canyon Wash Trail and buried utilities from early May to mid July. ▪ Erect temporary construction fencing along the proposed construction limits of planned improvements prior to any ground-disturbing activities. Contractor will be required to contain all construction activities within the approved construction limits and maintain temporary fencing until notified by the Contracting Officer. ▪ Avoid where possible, occurrences of butterfly larval host plants including rubber rabbitbrush (*Chrysothamnus nauseosus*), yellow (sticky-leaf) rabbitbrush (*Chrysanthamus viscidiflorus*), viscid rabbitbrush (*Chrysothamnus viscidiflorus* var. *viscidiflorus*), downy rabbitbrush (*Chrysothamnus viscidiflorus* var. *puberulus*), white rubber rabbitbrush (*Ericameria nauseosa* var. *holoceuca*), smooth fruit rabbitbrush (*Chrysothamnus nauseosus* var. *leiospermus*), and Mojave rabbitbrush (*Chrysothamnus nauseosus* var. *mojavensis*). ▪ Based on recommendations from Forest Service botanist/biologist collect native seed from appropriate larval host and nectar plants and revegetate temporary construction disturbance areas following completion of construction. ▪ Implement construction dust control measures to minimize impacts on blooming nectar plant populations.

Resource	Objective	Location	Number	Design Criteria
	Avoid impacts on bat species during construction.	Project area	W6	▪ Restrict work to daylight hours. ▪ Maintain 500-foot distance between construction activities and potential bat roosts during winter months. ▪ Design underground parking structures in a manner that will minimize bat mortality and breeding/nesting activity within the parking structure.
	Minimize impacts on sensitive species and their habitat, and enhance regulatory compliance.	Project area	W7	▪ Prior to entering the construction area, key construction personnel will receive a briefing regarding the sensitive species and habitats that occur within the project area. This will include providing informational materials to each member of the construction crew relative to sensitive species identification and impact avoidance; Contracting Officer notification procedures if a sensitive, threatened, or endangered species is encountered; and, permit retention and compliance procedures.
	Vector control	Artificial open water bodies	W8	▪ Design open water bodies and/or employ appropriate environmentally friendly techniques to control mosquito populations.
	Minimize wildlife impacts at waste treatment plants	Lagoon treatment plants or other waste water treatment options with potential to adversely affect wildlife	W9	▪ Coordinate with Nevada Department of Wildlife (NDOW) on appropriate wildlife protection measures at waste water treatment plants depending on technical issues, water quality, or other concerns to minimize adverse effects on wildlife.
	Comply with Nevada State fishing/stocking regulations	Project area	W10	▪ Coordinate with NDOW on any proposed commercial or stocked fishing activities.

Table 2-5. Proposed Mitigation Measures

Number	Resource	Location/Alternative	Mitigation Description
MM-Wildlife 1	Spring Mountains acastus checkerspot habitat	Area in Kyle wash where proposed Kyle Canyon Wash Trail construction would occur, from Kyle Canyon Campground to the Village / Proposed Action and Market Supported Alternative	Install permanent fence at Kyle Canyon Campground to funnel trail users onto the Kyle Canyon Wash Trail, including fence along the first 100 feet of the trail. Monitor recreation use of the Kyle Canyon Wash Trail in the mate selection habitat area for impacts off the designated trail and install additional fence sections if necessary to prevent impacts from user-created trails.
MM-Botany 1	Clokey milkvetch	Kyle Canyon Campground / Market Supported Alternative	A botanist will provide layout/location recommendations for the fence proposed on the southern perimeter of the Kyle Canyon Campground under the Market Supported Alternative to protect existing plant populations and habitat on the periphery of the campground and to direct users to designated trails.
MM-Botany 2	Clokey greasebush, inch high fleabane (in stable cliff habitat), Jaeger beardtongue, Jaeger's ivesia, Clokey milkvetch, and Charleston violet	Trail on upland south of Village Area / Proposed Action and Market Supported Alternative	Design and layout of trail alignments will be adjusted to provide a setback from the cliff edge as great as 25 feet, to avoid populations of sensitive cliff-dwelling plants and Clokey milkvetch.

2.4 Alternatives Considered but Eliminated from Detailed Study

Federal agencies are required by NEPA to rigorously explore and objectively evaluate all reasonable alternatives and to briefly discuss the reasons for eliminating any alternatives that were not developed in detail (40 CFR 1502.14). Reasons for not developing an alternative in detail may include: 1) failure to meet purpose and need[2]; 2) technologically infeasible; 3) clearly unreasonable; 4) unreasonable environmental harm; 5) cannot be implemented; 6) remote or speculative; 7) illegal; and 8) duplication within the existing range of alternatives. Therefore, a number of alternatives were considered, but dismissed from detailed consideration for reasons summarized below.

[2] Refer to Section 1.3 for the Purpose and Need of the Middle Kyle Complex.

2.4.1 Traditional Day Use Alternative

This alternative was identified in the Business Plan (PwC 2008). This alternative is a scaled-back version of Emerging Destination Alternative, also described in that report. Under this alternative, a small visitor center would serve as a contact station with operations similar to the current interim visitor center. This alternative focused on providing day use activities such as hiking and picnicking that would attract repeat visitors from Las Vegas.

This alternative was eliminated from further consideration because it does not meet the purpose and need for action. Specifically, this alternative would not provide for a comprehensive destination visitor facility and does not expand on environmental interpretation activities.

2.4.2 Modified Status Quo Alternative

This alternative was also analyzed in the Business Plan (PwC 2008). Under this alternative the existing Kyle Canyon Interim Visitor Center would be maintained and existing facilities in Lee and Kyle Canyons would be maintained or improved using approved SNPLMA funding. The only new improvement under this alternative would be a wayfinding system.

This alternative was eliminated from further consideration because it does not meet the purpose and need for action. Specifically, this alternative would not provide for recreation opportunities outside the sensitive upper canyon areas and would not meet the expected increase in demand for recreation opportunities.

2.4.3 Middle Kyle Canyon Framework Plan Option 2

This alternative was identified in the pre-NEPA planning document *Middle Kyle Canyon Framework Plan* (Shapins Associates 2005). Under this alternative, new facilities would be located in areas that were already ecologically disturbed. Small buildings and outdoor spaces that support environmental interpretation activities would be emphasized. Day-use recreation facilities would be sized only to replace facilities in the upper canyon. It protects resources through conservation and more stringent management of visitor use. Facilities in the upper canyons would be expected to continue to serve visitors.

This alternative would provide for additional recreation and environmental interpretation opportunities outside the upper canyon area, although not to the extent as provided under the Proposed Action. It addresses the Spring Mountains acastus checkerspot butterfly issue as no new construction would occur in those areas under this alternative. Refer to *Middle Kyle Canyon Framework Plan* (Shapins Associates 2005) for a more detailed explanation of this alternative.

This alternative was eliminated from further consideration because it does not meet the purpose and need for action. This alternative would not provide a

diverse range of additional recreation opportunities, a comprehensive destination visitor facility near the entrance to the SMNRA, or a focused destination for visitors to the SMNRA with multiple opportunities for on-site interpretation and information.

2.4.4 Middle Kyle Canyon Framework Plan Option 3

This alternative was identified in the pre-NEPA planning document *Middle Kyle Canyon Framework Plan* (Shapins Associates 2005) and emphasizes revenue generation, focusing on retail and food venues, event spaces, and rental activities. A high proportion of revenue-generating uses to recreation facilities would ensure that the SMNRA could meet long-term operations and maintenance expenses. On-going programs that do not pay for themselves would be minimized. Refer to *Middle Kyle Canyon Framework Plan* (Shapins Associates 2005) for a detailed description of this alternative.

This alternative would provide for some additional recreation and environmental interpretation opportunities outside the upper canyon area. It addresses the Spring Mountains acastus checkerspot butterfly issue because no new construction is proposed in those areas under this alternative. This alternative was eliminated from further consideration because the likelihood of successful implementation was remote or speculative. The Business Plan analysis showed inadequate market demand to justify the various elements of the proposal and the unlikelihood that sufficient revenue would be generated.

2.4.5 Restoration of 128-Acre Site Alternative

This alternative would include similar components as the No Action Alternative but would restore the 128-acre site acquired by the Forest Service in 2004. Restoration of the property would consist of removing rubbish/trash illegally dumped on the site, removal of asphalt, sod, and ornamental trees and non-native vegetation to restore the property to a more natural state. The existing ponds would be used for fire suppression activities. This alternative was eliminated from further consideration because it did not meet the purpose and need of the project.

2.4.6 No Retail Alternative

Under this alternative retail facilities would not be included beyond what currently exists at the existing Kyle Canyon Interim Visitor Center. This alternative was eliminated because it does not meet any of the purpose and need statements of the project.

2.4.7 Utilize Partially Built Structures for Administrative Facilities

This alternative would use existing structures on the 128-acre site acquired by the Forest Service. Construction of these structures was never completed and under this alternative they would be utilized for Forest Service administrative facilities. This alternative would relocate the administrative facilities outside the Kyle CCC Camp, allowing for restoration of the historic structures. No visitor use or recreation facilities were proposed as part of this alternative. This alternative was eliminated because it was not economically feasible to retrofit the structures and it did not address the purpose and need of providing additional recreation and environmental interpretation opportunities. The remaining structures were removed in 2006 due to public safety considerations.

2.4.8 Relocate Cathedral Rock Picnic Facilities to 128-acre Site

The focus of this alternative was to relocate the existing picnic facilities at Cathedral Rock to the 128-acre site to reduce impacts on sensitive species in the upper canyon. This alternative would also provide expanded trailhead parking at the existing Cathedral Rock site, but the picnic sites would be closed and rehabilitated. This alternative was eliminated because it does not meet the purpose and need of the project to provide a diverse range of recreation opportunities or a focused destination for visitors to the SMNRA.

2.4.9 Interagency Visitor Center Alternative

This alternative focused on establishing a single visitor center in the lower Kyle Canyon area, near the intersection of SR 157 and US 95 that would serve the needs of both the Forest Service and the U.S. Fish and Wildlife Service. This alternative was dropped from consideration when the U.S. Fish and Wildlife Service decided that a different location would be beneficial for their agency.

2.4.10 Utilize Lee Canyon More Extensively Alternative

This alternative focused on expanding SMNRA visitor use to Lee Canyon, thereby relieving pressure in Kyle Canyon. A new visitor center and expanded camping and day-use facilities would be constructed east of SR 158 near the intersection with SR 156.

Under this alternative, the cost was prohibitive to extend commercial power to Lee Canyon. Also, much of the terrain suitable for new development is located east of SR 158 in private ownership, and additional water rights would need to be

secured or existing Forest Service water rights transferred to a new point of diversion.

Locating a visitor center in Lee Canyon would not "intercept" the majority of visitors upon entering the SMNRA. Due to high costs and other considerations, this alternative was determined clearly unreasonable and was dismissed from further consideration.

2.4.11 Close SR 156 and SR 157 at SMNRA Boundaries Alternative

This alternative focused on reducing vehicular traffic in the upper canyons by creating fee entry points on SR 156 and SR 157 at the SMNRA boundary. NDOT, which administers these state routes, is not authorized to establish fee or toll roads without special legislation. Transferring jurisdiction of the SRs to the Forest Service is not feasible as the Forest Service does not received funding sufficient to cover operation or maintenance costs for these routes. It is not anticipated that fee collections from entry stations would be adequate to offset highway maintenance costs. The alternative was determined to be clearly unreasonable and was dropped from further consideration.

2.4.12 Limited Visitor Center Alternative

This alternative would include construction of a small-scale visitor center on the 128-acre site to provide basic interpretive materials, trail maps, etc. Recreational facilities and use in the upper canyon would be maintained. This alternative was eliminated from consideration because it does not address the purpose and need of the project to provide additional recreation opportunities outside the upper canyon area.

Chapter 3

Affected Environment and Environmental Consequences

Rubber rabbit brush in Kyle wash, east of Kyle Canyon Campground.

3.0 Introduction

This chapter provides a description of the project area affected environment and the environmental effects of implementing Alternative 1 (No Action Alternative),

Alternative 2 (Proposed Action), and Alternative 3 (Market Supported Alternative).

Chapter 3 is organized into eight parts: Section 3.1 discusses resources in the project area that were analyzed but would not be adversely affected by implementation of the Middle Kyle Complex project. Section 3.2 discusses potential effects on recreation resources. Section 3.3 discusses potential effects on biological resources, including sensitive wildlife and plant species and the Spring Mountains acastus checkerspot butterfly (*Chlosyne acastus robusta*) habitat (the significant issue). Sections 3.4 and 3.5 discuss potential effects on cultural and visual resources, respectively. Section 3.6 discusses whether implementation of the Middle Kyle Complex project is compliant with Spring Mountains National Recreation Area (SMNRA) General Management Plan. Section 3.7 identifies required disclosures and describes executive orders with which the U.S. Department of Agriculture Forest Service (Forest Service) must consider and comply. Section 3.8 contains an essay prepared by the Nuwuvi Working Group describing the Nuwuvi relationship to the Spring Mountains landscape. In addition, Sections 3.2 through 3.5 contain a description of the affected environment for the specific resource being analyzed.

Scoping and environmental analysis conducted for the project determined that further study of the following resources was not warranted:

- Mineral resources (such as saleables, leaseables, or locatables),
- Wilderness resources,
- Wild and scenic rivers,
- Rangelands,
- Animal damage control,
- Wild horse and burro,
- Federal Emergency Management Agency delineated floodplains,
- Federally listed threatened or endangered species,
- Wetlands, and
- Fisheries or aquatic resources.

There would be no effect on the resources listed above; consequently, they are not analyzed further in this Environmental Impact Statement (EIS).

The Forest Service may implement an administrative action that would prohibit dispersed camping on or within 300 feet of Forest Service roads and trails open to motorized vehicles, trailheads, county roads, and state highways within the Lee Canyon, Kyle Canyon, and Deer Creek areas of the SMNRA. Project specific resource studies were not conducted outside the Middle Kyle Complex project area. The context and intensity of potential adverse or beneficial impacts that may result from this action are, therefore, difficult to determine. Given the lack of information regarding the existing conditions and potential impacts associated with this action, detailed evaluation of the direct, indirect, and cumulative impacts is not included in this document.

3.1 Resource Impacts Considered

During the course of the analysis conducted for this EIS, the Forest Service documented the environmental impacts on project area resources in resource specialist reports. Analysis included implementation of the design criteria listed in Table 2-4. Use of these practices and techniques would reduce or minimize impacts from construction and operation of the Middle Kyle Complex project on several resources. Those resources are identified in this section. Resources that have the potential to be impacted by the proposed project are discussed in detail in subsequent sections of this chapter.

The analysis considered the direct, indirect, and cumulative effects on the following resources.

- Air quality,
- Risk assessment for non-native invasive species (NNIS) of plants,
- Geology and soils,
- Hydrology, and
- Social and economic resources.

Following is a summary of the analysis from each resource specialist report. Detailed information on the analysis is available in the resource specialist reports and other supporting documentation cited in those reports. These reports are available upon request from the SMNRA office in Las Vegas, Nevada. Further analysis was not subsequently conducted on these resources.

The potential environmental effects of implementing proposed transportation improvements were included in the effects analysis in the resource-specific specialist reports. Section 3.1.6, *Transportation,* summarizes proposed changes to existing Forest Service roads and trails in the project area.

3.1.1 Air Quality

An assessment of air quality, including emission calculations and regional air quality impacts in the Middle Kyle Complex project area, was documented in the *Air Quality Specialist Report, Middle Kyle Complex* (ICF Jones & Stokes 2009a). The report evaluated direct air quality impacts (caused by construction and operation within the SMNRA) and indirect impacts (caused by tailpipe emissions generated by vehicular activity). Cumulative effects are discussed in Section 3.7.5.

The impact assessment in the air quality analysis area included:

- the vicinity within 500 feet of major unpaved roads serving the project area, the region that could be affected by fugitive dust from vehicles;

- the regional airshed (Clark County Hydrographic Basin 212), which could be affected by regional traffic emissions; and
- Class I Visibility-protected areas within a 300-mile radius of the SMNRA.

An air quality modeling program was used to predict construction and operation emissions associated with the project. The emissions included the following pollutants that are most commonly measured and regulated (i.e., criteria pollutants): carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter smaller than 10 microns (PM_{10}), and particulate matter with a diameter less than or equal to 2.5 microns ($PM_{2.5}$). Because O_3 is formed in the air through a chemical reaction between oxides of nitrogen (NO_x) and volatile organic compounds (VOC) under sunlight, these emissions are regulated with the aim of reducing ozone formation in the lowermost region of the atmosphere.

The focus of the air quality impact assessment was to determine if construction and operation of the Middle Kyle Complex project alternatives would cause regional air quality impacts or exceed National Ambient Air Quality Standards (NAAQS) limits.

Direct and Indirect Effects

Potential direct and indirect effects on air quality are described below.

No Action Alternative

The No Action Alternative is equivalent to existing conditions; it was therefore concluded that air pollutant emissions under this alternative probably would not be significant.

Proposed Action and Market Supported Alternative

No significant air quality impacts were forecasted because of construction or operation of the Proposed Action or the Market Supported Alternative. The projected increase in criteria pollutant emissions was forecast to be well below the general conformity applicability thresholds. In addition, SMNRA emissions would be very low compared to existing emissions within the regional airshed of Clark County.

Compliance with the Dust Mitigation Plan (Humboldt-Toiyabe National Forest 2003) would ensure that recreationists and visitors outside the construction zone would not be exposed to pollutant concentrations approaching NAAQS limits. Therefore, this impact would be less than significant. During operation, air quality effects from road dust under all of the alternatives would generally be temporary and would not extend beyond the immediate vicinity of roads within the project area. The closure of user-created motorized routes and conversion of

roads in the project area to hiking, biking, and equestrian use would reduce dust and air pollutants in these areas. The majority of Forest Service roads in the project area that are currently unsurfaced would be paved under the Proposed Action and Market Supported Alternative. Since the effects of road dust are temporary and confined to small areas, this impact is not likely to be significant.

The nearest Class I visibility protected area, Grand Canyon National Park, is located 90 miles from the project area. Because project emissions that could contribute to visibility impacts are very minor and localized, Class I visibility modeling was not conducted. Projects of this size (in terms of emissions) are typically only considered for quantitative visibility analysis if a Class I visibility protected area is adjacent or within a few miles of the project area.

The proposed project is required to adhere to Clark County Department of Air Quality and Environmental Management requirements and practices. Permits for construction activities and dust control would be obtained from Clark County. In addition, implementation of design criteria and best management practices (see Table 2-4, *Design Criteria Common to Action Alternatives*) would prevent significant air quality impacts.

3.1.2 Non-Native Invasive Species of Plants

The risks for invasive weed introduction during and following construction of the Middle Kyle Complex project were documented in the *Non-Native Invasive Species Plants Specialist Report and Risk Assessment for the Spring Mountains National Recreation Area* (ICF Jones & Stokes 2009b). Implementation of the Proposed Action or Market Supported Alternative could result in the introduction, establishment, and spread of NNIS of plants through soil disturbance and vegetation removal activities associated with construction (e.g., vegetation clearing, grading, and trail construction), and during operation (e.g., increased visitor use, increased equestrian use, and increased trail network in previously undisturbed communities).

Weed establishment is associated with a variety of factors including the proximity of a weed seed source; soil disturbance; canopy opening; the movement of wild animals (birds, deer) and livestock (horses and other recreational livestock); and mechanical equipment use. The overall risk of weed spread and establishment from the proposed project would be high, because of the large scale of vegetation clearance (permanent in some areas) and ground disturbance, the proximity to existing NNIS populations, and the anticipated increase in visitor numbers and associated recreational use of the project area.

For NNIS plants to colonize an area the seeds (or other means of dispersal such as cuttings, bulbs, or root fragments) must be carried into the area by a vector and suitable conditions must be present for the NNIS plants to establish and spread. Seeds can be carried in soil clinging to machinery and vehicles and deposited in weed-free areas. Seeds can also be transported in the digestive tracts of horses and other recreational livestock and can be deposited at trailheads and along trails. Soils that are disturbed as a result of constructing buildings, roads, and

trails can provide ideal habitat for NNIS plants. Many NNIS plants take advantage of soil disturbance to enter native plant communities. Roads and trails facilitate NNIS invasion and spread by altering habitat conditions, stressing or removing native species, and allowing easier movement of vectors (humans, vehicles, livestock, and wild animals). Some invasive plant species may not require any soil disturbance to invade native ecosystems and can thrive if seeds are simply introduced.

Affected Environment

The majority of the project area lies within two plant zones: the desert shrublands zone and the low conifer woodland, montane shrubland, and chaparral zone. Also present are smaller areas of high conifer forest and woodland and azonal steep slopes and clifflands. Within these plant zones, 14 plant communities have been identified in the project area, most of which are relatively free of NNIS.

The project area supports a high diversity of plant species, including sensitive plant species and plants that provide nectar and larval food for sensitive butterfly species. Comprehensive botanical surveys conducted in the project area identified 33 occurrences of 10 sensitive plant species, many of which are unique to the Spring Mountains (Jones & Stokes 2006, 2007). Some of the sensitive plants are locally common in suitable habitat; some are more restricted in distribution; others are known from small populations (Jones & Stokes 2006, 2007). Small populations are vulnerable to local habitat alteration that can occur when NNIS invade plant communities. Larval host and nectar plants for sensitive butterflies are also common and widespread in the project area.

More than 300 plant species were identified during the botanical surveys. Almost 90% were native plants; however, approximately 30 NNIS were found in the project area. Of these, seven species of high concern were mapped: five plant species that are Nevada State A, B, or C Category Noxious Weeds and two NNIS that are Management Indicator Species (MIS). MIS are species (plants and animals) indicative of ecosystem health and the success of management of resources. All but two of the NNIS in the project area occurred only in disturbed areas: along the disturbed shoulders of SR 157 and/or in the disturbed areas of the former golf course property, including the area where landscape turf had been placed. The majority of these occurrences are point locations. It appears that the main risk factor in the project area is ground disturbance and the main vectors for spread are likely vehicles, (road maintenance equipment, off-highway vehicle [OHV], and passenger cars and trucks). The National Forest System (NFS)-designated road and trail density in the project area is currently 3.7 miles per square mile (7.2 miles per square mile including unauthorized routes), and there are large areas of undisturbed plant communities.

Of the 30 NNIS present in the project area, 27 are considered of low management concern or are located along SR 157 and not likely to be directly affected by the implementation of either action alternative. The remaining seven species are of high concern and two of these species (white horse nettle *[Solanum elaeagnifolium]* and puncture vine *[Tribulus terrestris]*) occur only on the

shoulder of SR 157 and would not be affected by either action alternative. Three species (Russian knapweed *[Acroptilon repens]*, Canada thistle *[Cirsium arvense]*, and Klamath weed *[Hypericum perforatum]*) are located in the former golf course property in very limited quantities and are generally point locations consisting of few plants. The risk of spread of these five species is very low because of ongoing eradication, limited quantities, the likely removal of the plants during construction of the recreation facilities, and long-term site monitoring by biologists.

Only two species, cheatgrass (*Bromus tectorum*) and red brome (*Bromus rubens*; synonym: *B. madritensis* ssp. *rubens*) are widespread in the project area and extend over areas greater than 1 acre. Cheatgrass is pervasive across the southwestern United States and can permanently alter shrub ecosystems in the Great Basin where fire and subsequent spread of the species can crowd out native forbs and shrubs (Brooks 2000). Cheatgrass was estimated to occupy approximately 142 acres in the project area. Of all of the NNIS present in the project area, cheatgrass is the one most likely to spread widely and invade weed-free areas in the long term.

Like cheatgrass, red brome is pervasive across the southwestern United States, has been present in native communities in the SMNRA since the 1950s, and has similar effects on ecosystem functions as those described for cheatgrass (Brooks 2000). Recent surveys in the project area found that red brome occupied an estimated 102 acres in the project area (Jones & Stokes 2006).

Both cheatgrass and red brome occupy disturbed areas and road sides at lower elevations in the project area. However, red brome appears to be more widespread than cheatgrass on these sparsely vegetated south sloping sites, and appears to have penetrated further than cheatgrass into undisturbed natural communities (Jones & Stokes 2006).

Forest Service policies emphasize the prevention of weed establishment and the Forest Service has developed prevention practices and project design criteria such as construction equipment cleaning provisions, avoidance of travel through known weed-infested areas, minimization of soil disturbance, and utilization of weed-free gravel sources. Implementation of these measures reduces the probability of introducing and spreading weed seeds and plant parts. These policies apply to each aspect of the construction and operation of both action alternatives and include detailed guidelines in the Forest Service Manual 2080 (Forest Service 2004) to prevent weed introduction and spread during facility construction including heavy equipment use, soil and vegetation rehabilitation, and road maintenance activities. Guidance also exists for operational and recreational activities such as outfitter and guide guidelines that cover equestrian and other recreational livestock activities and recreation guidelines.

Direct and Indirect Effects

Potential direct and indirect effects on NNIS are described below.

No Action Alternative

Under the No Action Alternative, disturbance-related impacts from project implementation that would increase the risk of establishment and spread of NNIS would not occur. However, continued unmanaged use is occurring in the project area with minimal Forest Service oversight of the existing vegetation conditions, and this type of use is expected to increase over time. Currently, there are approximately 22 miles of dirt roads and motorized trails (15 miles of designated routes and 7 miles of unauthorized roads) used by OHVs, and an additional, approximate 16 miles of unauthorized trails used by mountain bikers and equestrians in the project area. The density of the roads and trails in the project area is 7.2 miles per square mile, including NFS-designated and unauthorized routes. Consequently, under the No Action Alternative, the rate of invasive weed introduction is expected to increase beyond the range of current introduction rates. In addition, under the No Action Alternative, the former golf course property would remain disturbed ground that is currently the location of many of the NNIS observed in the project area. Under this alternative new visitor and recreational facilities would not be constructed. Limited rehabilitation of this site, along with continued treatment of the NNIS, would reduce the risk this area currently presents as a site for the continued establishment and spread of NNIS.

Under the No Action Alternative, the rates of introduction and levels of infestation currently observed are anticipated to slowly increase over time as SMNRA visitor numbers increase as projected. The current level of monitoring and weed treatment would continue and new infestation and spread of weeds would be difficult to detect and track because visitor use is dispersed and unregulated throughout the project area.

The No Action Alternative would likely result in an increase in the spread of NNIS plants in the project area and the surrounding area because of the anticipated increase in unregulated dispersed visitor use and associated ground disturbance from user created trails.

Rabbit brush and Bromus sp. (non-native invasive species) growing on site of the former golf course in the proposed Valley area.

Proposed Action

Implementing the Proposed Action would permanently disturb approximately 425 acres for construction of buildings, parking areas, trails, trailheads, campgrounds, and picnic areas. An additional 653 acres would be temporarily disturbed because of construction activities. A total of 48 miles of new trails and trail improvements would be constructed, including multiuse trails in previously undisturbed vegetation communities.

Under the Proposed Action, the introduction, establishment, and spread of NNIS could increase during construction and operation as a result of the following:

- Roadsides and trails are common areas where weeds become established and spread along the corridors. The density of NFS-designated roads and trails in the project area would be 9.7 miles per square mile. Most of the NNIS observed in the project area occur along SR 157 and in the parking lot of the former golf course property, both of which are (or have been in the past) highly disturbed, heavily traveled, and denuded of native vegetation. Undeveloped trails have a similar, though lesser, effect related to the establishment and spread of NNIS. Implementing the Proposed Action would increase the total length of trails to 48 miles. The anticipated increase in recreational visitation by vehicles, OHVs, horses and other recreational livestock, mountain bikers, and hikers, would increase the probability of NNIS introduction
- Implementing the Proposed Action would result in ongoing and permanent soil disturbance along trails and in campgrounds that would provide suitable conditions for the continuing establishment of NNIS. Removal of native plant communities could potentially introduce weeds into uninfested areas or release dormant weed seeds already present. Many of the existing weeds and NNIS are located in the former golf course property, where most of the disturbance to soils from construction would occur.
- Removal of the tree and shrub canopy would fragment areas of previously undisturbed vegetation communities. Gaps in the forest canopy allow more sunlight to penetrate the forest floor; stimulating germination of some species of NNIS and allowing them to grow and survive.
- Rehabilitating portions of the former golf course property (128 acres) would involve removing non-native vegetation and replanting it with native species. However, this rehabilitation involves the removal of vegetation, soil disturbance, and the introduction of soil treatments and new plant material, thereby increasing the risk of introducing NNIS and encouraging their establishment. Because the risk of weed infestation is greater when project activities are located near an existing weed seed source, the high frequency and wide distribution of NNIS in this area would increase the risk of spreading NNIS throughout this area.

Under the Proposed Action, there would be a high risk of NNIS spread and invasion in the project area based on the risk of existing NNIS populations and the level of ground-disturbing activities that would occur. However, with implementation of the design criteria (see Table 2-4, *Design Criteria Common to*

Action Alternatives), including preventative measures, site rehabilitation, and post-implementation monitoring by SMNRA personnel, the volume of invasive weed introductions and spread is expected to be minor and below (or within) the range of current rates of introductions.

Market Supported Alternative

Construction of the Market Supported Alternative would permanently disturb approximately 331 acres, 94 acres less than the Proposed Action. An additional 579 acres would be temporarily disturbed, 74 acres less than the Proposed Action. A total of 44 miles of new trails and trail improvements would be constructed, including multiuse trails in previously undisturbed vegetation communities, approximately 6 fewer acres than under the Proposed Action. The density of designated road and multiuse trails would be 8.4 miles per square mile, 1.3 miles per square mile less than the Proposed Action. The density of roads and multiuse trails that would traverse previously undisturbed areas would increase correspondingly.

The potential direct and indirect effects of implementing the Market Supported Alternative are qualitatively similar, and in general, of similar magnitude as those described for the Proposed Action. An exception would be that the Market Supported Alternative does not include an equestrian campground or equestrian rental facility; hence, equestrian use of the project area is expected to slightly increase from existing levels of use because of the improved trail network and trailhead facilities.

Total acreage of construction and soil disturbance would be less than under the Proposed Action, resulting in somewhat fewer opportunities for NNIS to colonize. The overall number of visitors is expected to be similar, and there would, therefore, be little difference in the amount of travel into the project area and in the extent of travel on trails throughout the project area. However, overall equestrian and trail use is expected to be less than under the Proposed Action because fewer facilities would be provided. This would reduce the risk of NNIS introduction and establishment under this alternative. The design criteria (see Table 2-4, Design Criteria Common to Action Alternatives) and measures described under the Proposed Action would also be implemented under this alternative; therefore, the overall effect on NNIS introduction and establishment is expected to be somewhat less than the Proposed Action.

After construction of either action alternative, the project area will be monitored consistent with Forest Service policy to provide for control of new infestations. If weeds are shown to persist or expand, the SMNRA staff will coordinate treatment of these areas following methods consistent with the Humboldt-Toiyabe National Forest noxious weeds management program (Forest Service 2001).

3.1.3 Geology and Soils

An assessment of the geology and soils in the project area was presented in the *Geology and Soils Specialist Report, Middle Kyle Complex* (ICF Jones & Stokes 2009c). The specialist report assessed the general geology of the project area including the geologic structure, geologic formations, soils, and if there was evidence of geologic hazards such as fault displacement, ground shaking, liquefaction, slope stability, debris flows or expansive soils within the vicinity of the project area.

Affected Environment

The project area is located on the eastern flank of the Spring Mountains, which mainly consist of sedimentary rock formations. The Spring Mountains are part of the Basin and Range Province of the western United States. This province consists of north–south trending, uplifted mountains and down-dropped valleys separated by faults, which have produced a distinctive, alternating pattern of linear mountain ranges and intervening valleys.

The geologic structure of the Spring Mountains is complex and controlled by large thrust faults. Several faults have been mapped within and in the vicinity of the project area, although they are all inactive. The primary fault is the Quaternary-age (i.e., less that 1.6 million years) La Madre Fault, which is generally aligned with SR 158 in the project area. Canyon Fault and Griffith Fault exist in the western part of the project area; the Keystone Thrust Fault is in the southern part; and the Lucky Strike Fault exists in the northern part (Case, Lowe, & Hart, Inc. 2007).

Much of the project area, including most of the areas proposed for intensive development, is underlain by alluvial units of Quaternary age. The source rocks of these generally gravelly and cobbly sediments are primarily limestone and dolostone. The older of these units are cemented.

The soils analysis identified the soils that occur in the project area including the slope, runoff, and erosion characteristics of each soil map unit. Previous soil surveys mapped 11 individual soil types within the project area. In general, the soils within the project area are shallow to moderately deep over rock or subsurface cemented layer and are well drained and moderately permeable. The soils generally formed from limestone and dolostone, or alluvium or colluvium derived from these rocks and as a result the soils tend to be neutral to alkaline and have excess calcium carbonate. The project area itself consists of an alluvial terrace that has been incised by ephemeral streamflow in Kyle wash and other smaller ephemeral streams.

Because the surface soils in the project area generally have a relatively low content of expansive (i.e., shrink-swell) clays, the hazard of expansive soils is generally low. However, some areas have moderately expansive subsurface soil layers within 2 feet of the surface.

Direct and Indirect Effects

Potential direct and indirect effects on soils are described below.

No Action Alternative

Under the No Action Alternative, the Middle Kyle Complex would not be constructed and there would be no long-term adverse effects on the existing soils and geology of the project area. Implementation of the No Action Alternative includes minor restoration of the disturbed 128-acre parcel (former golf course property) to a more natural state including the removal of non-native vegetation, debris, and some asphalt and the removal of several log structures that occur within the channel of Kyle wash. A short-term impact on soils would occur during these restoration activities; however, it is anticipated that a long-term benefit to the soils in this area would result from the restoration activities.

This photograph typifies the geology found in the area adjacent to the Slot Canyon and the Canyon Bottom Trail.

Proposed Action

Construction of the Proposed Action would result in approximately 425 acres of permanent ground disturbance and approximately 653 acres of temporary construction disturbance. This disturbance would be the result of excavation, fill placement, road construction, utility trenching, compaction, and other activities. The protective cover of vegetation and plant litter would be removed or otherwise disturbed. Soil quality and productivity could be reduced and accelerated erosion and subsequent sedimentation of downstream waters could occur. Minor failures and dry raveling of cut slopes along new roads could also result. Depending on the scale of excavation and fill placement, there would be a potential for these activities to create or exacerbate slope failure risk, unless properly designed and implemented.

Once the Proposed Action is constructed, operation and use of the recreational facilities could reduce soil quality and productivity and cause accelerated erosion and subsequent sedimentation within the Kyle wash downstream from the project. Such adverse effects could occur as a result of hiking, biking, and the

use of horseback trails, including off-trail use of the project area for recreational purposes. Soils would be more susceptible to erosion by wind and water because of hiking boots, bicycle tires, and hooves breaking through the crust and pulverizing the soil. Soil compaction reduces the rate of water infiltration and inhibits vegetation growth through the hard compacted soil layers. Soil compaction would increase around developed recreation locations, such as camp sites, resulting from travel around the immediate established site, and travel off designated trails and roads.

There would be a beneficial effect on soil quality and erosion rates in areas where vegetation and slope restoration would be implemented, including uplands surrounding existing ponds and Kyle wash and the former golf course property.

Market Supported Alternative

The Market Supported Alternative would disturb less area than the Proposed Action, totaling approximately 331 acres of permanent ground disturbance and approximately 579 acres of temporary construction disturbance. The disturbance would primarily be the result of construction-related excavation, fill placement, road construction and widening, utility trenching, compaction, and other activities.

In comparison to the Proposed Action, the Market Supported Alternative would generally entail a slightly less extensive removal of vegetative soil cover and soil disturbance and would have a lower potential for degradation of soil quality and productivity, mostly because fewer campgrounds would be constructed. The potential for associated water quality degradation would also decrease. Potential effects associated with the operation and use of the facilities would be similar to those described under the Proposed Action.

3.1.4 Hydrology

An assessment of the hydrology in the project area was presented in the *Hydrology Specialist Report, Middle Kyle Complex* (ICF Jones & Stokes 2009d). The specialist report assessed the hydrology of the project area including the relative geology and soil characteristics within the vicinity of the project area.

Affected Environment

The project area is located within the Upper Las Vegas wash watershed. The two primary drainages in the project area, Kyle wash and Telephone Canyon wash, are ephemeral in nature.

Surface runoff is typically generated by short, intense summer rains. In addition, winter snow accounts for approximately 40% of the total precipitation in the SMNRA. It melts and drains off of the higher elevations into these washes as

both surface runoff and subsurface percolation into the underlying alluvium. This results in ephemeral streams that are highly variable in energy potential, with sudden and extreme changes in flow levels. No in-stream gauges have been established in Kyle Canyon and, therefore, no historic flow data are available.

The Mt. Charleston Water Company provides service to the existing Resort on Mount Charleston, adjacent condominiums, church, and the Nevada Department of Transportation (NDOT) maintenance station. The Las Vegas Valley Water District (LVVWD) operates the Rainbow/Echo View water system serving housing subdivisions located approximately 2.5 miles west of the project area and also provides service to the existing Forest Service facilities at Fletcher View Campground, Kyle Canyon Campground and the Kyle CCC Camp and administrative site. The Forest Service acquisition of the 128-acre parcel, located near the Resort on Mount Charleston, included two groundwater wells and associated water rights.

Presently, there are no domestic or municipal uses of surface water within the project area. The primary beneficial use of surface water in the project area is for wildlife and recreation. Two artificial ponds are located on the valley floor and three upper water storage reservoirs are located northwest of the proposed Village area. These artificial ponds, when filled with water, provide wildlife habitat and water for fire fighting in the event of a fire in the area. The water source for these ponds comes from Forest Service wells located in the project area. The liners for the valley floor ponds have deteriorated to the point that these ponds no longer efficiently or reliably store water; therefore, they cannot be used for fire protection.

There is one spring, Sidehill Spring, located in the project area. This spring is located in the northern part of the Telephone Canyon. Water from this spring is collected at the surface and piped several feet to a water trough. The water in the trough is used by area wildlife and the horses of equestrian riders.

No streams in the project area are listed as impaired pursuant to the Clean Water Act Section 303(d) (1972); however, the Las Vegas wash from Telephone Line Road to the confluence of Las Vegas wash with Lake Mead, of which these streams are tributaries, is listed as impaired or as needing further study for possible listing as an impaired water resource by the State of Nevada (2009), as required by the Clean Water Act Section 303(d).

The hydraulic properties of the geology in Kyle Canyon were summarized from various well aquifer tests by Plume (1985). The Spring Mountains range provides one of the primary groundwater recharge sources for the region. The project is located within the Las Vegas groundwater basin. Groundwater in the area occupies the fractures and solution channels in the basement rock and the interstitial pore space of the alluvium gravels. Estimates of hydraulic conductivity from the alluvium in Kyle Canyon were between 4 and 30 feet per day (Forest Service 2007). These estimates of hydraulic conductivity for the alluvium deposits represent moderately high values for well-sorted gravels, and very high values overall in the range normally found in natural surface material (Fetter 1988). The conductivity for the carbonate rocks, highly variable as it is,

represents a very high potential for transmission of groundwater (Forest Service 2007).

Direct and Indirect Effects

Potential direct and indirect effects on hydrology are described below.

No Action Alternative

Under the No Action Alternative the Middle Kyle Complex would not be constructed and there would be no new construction-related impacts on project area hydrology. The long-term increase in the greater Las Vegas area population would result in increased recreational use of the project area and subsequent, incremental increases in erosion and sedimentation due to user-created trail development and recreational use of existing trails and roadways. Potential effects on hydrology would consist of changes to peak flows resulting from increased surface runoff produced by hiking and OHV-induced soil compaction and vegetation removal.

Implementation of the No Action Alternative includes minor restoration of the disturbed 128-acre parcel (former golf course property) to a more natural state including the removal of non-native vegetation, debris and some asphalt, and several log structures within the channel of Kyle wash. A short-term displacement of soils would occur during these restoration activities; however, it is anticipated that a long-term benefit to hydrology would result from the restoration activities and the removal of the log structures. These efforts would allow the development of a natural channel morphology within Kyle wash and would thereby reduce overall channel and bank erosion and sediment transport.

Proposed Action

Construction of the Proposed Action would entail disturbing large areas of soils through excavation, fill placement, road construction, utility trenching, soil compaction, and other construction-related activities. Surface disturbances associated with the construction of the Proposed Action include approximately 425 acres of permanent and 653 acres of temporary disturbance. The protective cover of vegetation and plant litter would be removed or otherwise disturbed. Water quality could be reduced and accelerated erosion and subsequent sedimentation of downstream waters could occur. Operation and use of the recreational facilities could also reduce water quality and productivity and cause accelerated erosion and subsequent sedimentation of downstream waters. These effects may result from hiking, biking, and horseback trail use, including the establishment and use of unauthorized trails.

The potential exists for debris flows and flash floods to occur in Kyle wash and in smaller tributaries and swales. The debris flows and flash floods typically occur in response to intense rainfall. These events are exacerbated in watersheds

where a wildfire has occurred in the recent past, or in which significant areas of impervious surfaces contribute to increased runoff potential.

Removal of the water diversion structure and the existing golf cart paths within the 128-acre parcel would initially displace soil and vegetative materials within and immediately adjacent to Kyle wash. These materials could be transported downstream during a rainfall event. Implementation of best management practices (BMPs) and stormwater management practices will minimize these effects and no significant adverse impacts are anticipated. The long-term beneficial impacts resulting from the removal of these structures include reduced erosion and headcutting during periods of flow in Kyle wash. Rehabilitation of the Kyle wash embankments and channel as part of the removal of these structures would return the wash to a natural channel morphology that has less potential for bank or channel erosion than currently exists.

Effects on water quality would be beneficial in areas where restoration would be implemented, including uplands surrounding existing ponds and Kyle wash and the former golf course property. Other beneficial effects of the Proposed Action would include the closure and restoration of user-created trails and abandoned roads. Establishing native vegetation and aerating compacted soils in disturbed areas would reduce erosion and sedimentation and would promote surface water infiltration and retention.

Trails

The Proposed Action would create approximately 48 miles of designated non-motorized trails for use by hikers, bikers, and equestrians, including five new trailheads. In addition, approximately 16 miles of unauthorized trails in the project area would be closed and restored to a natural vegetative condition and approximately 6 miles of existing road would be converted to non-motorized trails.

Construction of trails within, across, or immediately adjacent to Kyle wash or Telephone Canyon wash would have the greatest potential for impacts on hydrology. Construction of the Kyle Canyon Wash Trail adjacent to the wash and crossing Kyle wash would require excavating gravel soils and providing temporary storage of excavated material adjacent to the trail within the wash at locations where underground utilities are collocated in the trail corridor. This area would be prone to wind and water erosion until construction and restoration is complete. The excavated soils would be securely staged (i.e., covered) prior to reuse. The impervious pavement surface of the Kyle Canyon Wash Trail and paved trails in the Valley area would collect and concentrate surface runoff leading to increased erosion potential.

The Canyon Bottom Trail, an unpaved hiking trail, would be constructed adjacent to Kyle wash and would cross the wash, which would increase erosion and soil compaction during construction. The proposed trails in Telephone Canyon would cross the Telephone Canyon wash; impacts on hydrology from these trails would depend on the trail standard and location within the drainages.

Impacts from trail construction are short term in nature and minimal compared to the long-term benefits of having designated trails that have been constructed properly in sustainable locations. User-created trails would be closed and restored, reducing soil erosion and compaction in these areas. Soil compaction on unsurfaced trails and trails outside of drainages can intercept and collect surface runoff that can lead to concentrated flow with resultant erosion and eventual sedimentation in drainages within the basin.

Roads

Several drainage-crossing structures would be installed throughout the project area, including the replacement of several existing undersized culverts. These drainage crossings would have the potential to increase temporary erosion and soil compaction during construction. The long-term effects of these structures would reduce streambed erosion and soil compaction caused by vehicular traffic crossing unimproved low-water crossings, and from erosion and concentrated flows caused by undersized crossings. Energy dissipaters (riprap), located where warranted on roadway drainage facilities, would reduce erosion and resource damage from concentrated water flows during storm events. The road closures and site restoration would have a beneficial effect on water quality by reducing water sheet flows and soil erosion along these roads.

Under the Proposed Action, approximately 8 acres of roadway and parking areas would be paved. The impervious pavement surface would collect and concentrate surface runoff leading to increased erosion potential. The runoff, particularly from impervious parking areas, may include oils and other vehicular fluids that could impair water quality.

Main Camping and Picnic Area

Surface disturbances associated with constructing the Main Camping and Picnic Area include approximately 115 acres of permanent and 48 acres of temporary disturbance. The majority of the permanent surface disturbance would be impervious due to the construction of roads, parking stalls, the campground and picnic unit pads, and buildings. The short-term impacts associated with construction include increased erosion as vegetation is trampled and removed from project area. Soil compaction from construction and operation activities is also anticipated. Long-term effects would include soil compaction and trampling of vegetation by recreation users venturing off of established roads, trails, and paths.

Wastewater Treatment

Impacts from the construction and operation of on-site septic tanks and drain/leach fields include approximately 7 acres of permanent and 7 acres of temporary disturbance. This acreage includes approximately 1 acre of land that is already disturbed by prior land use activities.

Standard septic tank/leach field systems can contribute to groundwater contamination from increased levels of nitrite and nitrates. Pre-treatment technologies and other design considerations, as approved by the permitting

jurisdiction, can significantly reduce nitrate and nitrite concentrations. The size of the Village treatment facility includes consideration for connecting the Mt. Charleston Water Company wastewater treatment facility. The change in this treatment location has the potential to improve water quality from Forest Service Well No. 1 located near the water company's treatment facility.

Water Facilities

Groundwater wells would be retested to verify the hydraulic parameters, safe yields, water quality and the estimated and potential effects on adjacent private wells. Water demand and usage estimates indicate that under the Proposed Action, without implementing water conservation design measures, use would be at the existing water right. High pumping rates from Well No. 2 could adversely affect well production of a nearby well operated by the Mt. Charleston Water Company. High pumping rates from Well No. 1 could raise nitrate levels in the drinking water because of the nearby, up gradient leach field operated by the Mt. Charleston Water Company. The existing water line serving Kyle CCC Camp, Kyle Canyon Campground and Fletcher View Campground would be replaced with a larger-diameter pipe to meet water demands of existing and proposed facility improvements.

The existing water storage reservoirs at the upper pond site (located northwest of the Village area adjacent to SR 158) would be removed and the area would be restored. A new approximately 330,000-gallon water storage tank located near the mouth of Telephone Canyon would be constructed. This facility would permanently impact approximately 5 acres of native Utah juniper and big sagebrush vegetation. The impervious surface created by this facility would collect and concentrate surface runoff leading to increased erosion potential.

The Proposed Action identifies the relocation of the existing solid waste transfer station off of NFS lands. Removal of the solid waste transfer station may increase illegal dumping on public lands.

Market Supported Alternative

Impacts on hydrology under the Market Supported Alternative would include the same actions as described under the Proposed Action with the following exceptions. The Market Supported Alternative would cause approximately 331 acres of permanent and 579 acres of temporary disturbance. In comparison to the Proposed Action, the Market Supported Alternative would require approximately 74 acres less removal of vegetative soil cover and soil disturbance and create 71 acres less impervious surface. This would result in a lower potential for degradation of water quality and productivity compared to the Proposed Action.

Trails

Impacts on water resources as they relate to trails for the Market Supported Alternative would be similar to those of the Proposed Action with the exception that 44 miles of non-motorized trails would be constructed.

Roads

Impacts on water resources as they relate to roads for the Market Supported Alternative would be similar to those of the Proposed Action. Under this alternative, approximately 13 acres of roadway and parking areas would be paved. This creates an additional 7 acres of impervious cover than the Proposed Action relative to proposed roadway facilities.

Main Camping and Picnic Area

Impacts on water resources as they relate to campgrounds for the Market Supported Alternative would be similar to those of the Proposed Action. However, the surface disturbance for the Main Camping and Picnic Area would be decreased due to increased density and some reduction in the number of sites (camping and picnic). Surface disturbances associated with the construction of the Main Camping and Picnic Area include approximately 47 acres of permanent and 27 acres of temporary disturbance. For the most part, the permanent disturbance would be impervious cover including roads (entrance, campground, and picnic loop roads), parking stalls, campground and picnic unit pads and buildings. Long-term effects from vegetation trampling and soil compaction from recreation users traveling off established roads, trails, and paths would be less than the Proposed Action because of the reduced development scale.

Wastewater Treatment

The impacts from the construction and operation of a sewage collection system with a central waste treatment facility include approximately 19 acres of permanent and 18 acres of temporary disturbance. This acreage includes approximately 0.5 acre of land that is already disturbed by prior land use activities.

The Market Supported Alternative uses a closed-loop sewer line/sewer lagoon system. Fewer impacts on water quality would result than under the Proposed Action because the sewer lagoon system would not allow the infiltration of wastewater into the alluvial soils of the project area. There is a remote potential for discharge from the lowest lagoon cell which would require permitting from the Nevada Division of Environmental Protection.

Water Facilities

Impacts on water resources as they relate to the water distribution system for the Market Supported Alternative would be similar to those of the Proposed Action except that fewer distribution lines would be installed in the Main Camping and Picnic Area and there would be less water usage because of the reduced development scale. This alternative would not have a water supply at the Harris

Springs Road/mountain bike trailhead. The Market Supported Alternative uses a commercial water source (Mt. Charleston Water Company) for all proposed facilities except the Western Area, which would continue to use the Las Vegas Valley Water District as the water provider. This alternative involved connecting the existing Forest Service Well No. 1 and Well No. 2 to the Mt. Charleston Water Company system. Supply line corridors from Forest Service wells would be routed to Mt. Charleston Water Company water storage facilities near the Resort on Mount Charleston instead of the storage tank in Telephone Canyon.

Water storage, if required for this alternative, is proposed to occur off site on private land (near the Resort on Mount Charleston) adjacent to the existing Mt. Charleston Water Company storage tank for cost and operational efficiencies. The proposed tank would have a capacity of approximately140,000 gallons; although, the additional tank may not be necessary depending on well yields and final design flows.

The existing open tanks, associated pipes, and equipment at the upper ponds adjacent to SR 158 would be removed. The area would be regraded to natural contours and revegetated with species appropriate to the setting. The short-term impacts associated with removal and regrading include increased erosion from vegetation trampling and removal, and soil disturbance and compaction. Revegetation would reduce erosion and sedimentation and would promote surface water infiltration and retention in the long term.

3.1.5 Social and Economic Resources

An assessment of the social and economic conditions in the project area was presented in the *Socioeconomic Technical Memorandum (*ICF Jones & Stokes 2009e). Social and economic analyses are conducted to determine what effect land management decisions may have on local communities, economies, and the people who use natural resources. The potential environmental justice effects are discussed in Section 3.7.13, *Executive Order 12898 (Environmental Justice)*. Cumulative effects are discussed in Section 3.7.5, *Cumulative Effects*.

The geographic scope of the study area is the local area of the Middle Kyle Complex within the SMNRA, including the lower, middle, and upper Kyle Canyon areas. Regional and local trends in population, demographics, employment, housing and personal income were considered.

Recently, the population of Las Vegas has seen a slight decline; however, the population of Clark County is expected to increase to 3.6 million by 2035 (Clark County Department of Comprehensive Planning 2008). A discussion of the regional demographic trend in Clark County is presented in Chapter 1, *Purpose of and Need for Action*.

The largest employers within Clark County are the Clark County School District (38,611 people), Clark County and Las Vegas Metropolitan Police Department (Metro) (14,859 people), and five Las Vegas Strip hotels and resorts that employ approximately 5,060 to 9,800 people each. The largest employment sectors are

leisure and hospitality (22.22%); casino hotels and gaming (13.69%); trade, transportation, and utilities (13.61%); professional and business services (9.36%); and government (8.65%) (Clark County Department of Comprehensive Planning 2009).

As of 2007, Clark County estimates the population of Mount Charleston to be 1,205 (Clark County Department of Comprehensive Planning 2008). Mount Charleston has relatively few employers and an economy primarily based on tourism. Private employers include two hotels in and near the town: the Mount Charleston Lodge and the Resort on Mount Charleston. The Las Vegas Ski and Snowboard Resort is a seasonal snow skiing and snowboarding resort located at the end of SR 156 in Lee Canyon with seasonal employment opportunities. Public employers include the Forest Service, NDOT, Clark County, Metro, and the Nevada Department of Forestry (NDF).

Affected Environment

The effects analysis was divided into two main areas: 1) effects related to construction, and 2) effects related to long-term operation of the project. For each of these areas, the following two factors were analyzed:

- **Housing, employment, or personal income.** These are impacts that may affect housing, employment, or personal income of the population within the study area.
- **Social wellbeing.** These are impacts that may affect the social wellbeing including the availability, amount, and quality of resources such as recreational and economic opportunities.

Direct and Indirect Effects

Potential direct and indirect effects on social and economic resources are described below.

No Action Alternative

No direct or indirect adverse socioeconomic or economic effects would occur under the No Action Alternative. Recreational activities (dispersed and developed) would continue to occur. The existing operations and facilities would continue in the same locations, including the Kyle Canyon Interim Visitor Center, Forest Service maintenance facilities, fire protection operations and living quarters for permanent and seasonal staff. Fire protection facilities for Clark County Fire and NDF would remain in the upper Kyle Canyon area. Forest Service permitted occupancies for the solid waste transfer facility and the Metro office would also remain the same.

Proposed Action

Construction-related activities may result in a minor benefit to the local economy if workers purchase goods and services from local businesses, because there are few local businesses offering goods and services in Kyle Canyon. It is estimated that the construction of new facilities may occur over a 15-year period. Throughout that 15-year period there would likely be intermittent activity, some of which may last a full construction season (e.g., the summer and shoulder season months) and some that may last a few weeks or months. This construction activity is likely to bring additional traffic and individuals to the area, but is not expected to adversely affect housing supply or substantially increase employment or personal income of residents within the study area.

During operation of the Proposed Action, there would be greater potential for economic enterprise for the residents within the study area because of the increase in the number of people visiting the Middle Kyle Complex area. Improved recreational elements could result in a slight increase in the use of privately owned vacation or rental properties that are currently used for seasonal or recreational purposes (about 45% of available housing stock). Additional permanent housing facilities would be created for Forest Service personnel, but no adverse effect on existing private housing within the study area would occur.

The introduction of new food retail vendors to the area could increase competition among food service providers that could result in an adverse economic effect on local businesses. Under the Proposed Action, there would be four to six retail shops, three food vendors, a bookstore, a meeting space, a large amphitheater, and bicycle and equestrian rentals. The Proposed Action would represent an expansion of the level of services currently offered by the Kyle Canyon Interim Visitor Center and would provide additional services and amenities to visitors. The retail concessions would offer food, beverages, souvenirs, and sundries to meet the needs of campers and day-use recreationists. Mount Charleston has lodges that offer sit-down dining and few, if any, concessions or sundries. However, the increase in the number of visitors to the area is also expected to increase the overall business for food retail vendors in the area.

Bicycle and horse rental facilities would be constructed as part of the Proposed Action, but the Forest Service would lease the facilities to a concessionaire to operate and maintain, similar to the approach for existing campground/picnic sites.

The Proposed Action would likely result in improved conditions for the social wellbeing of the study area. The addition of new facilities and visitor services and the prohibition of dispersed car camping within 300 feet of roads and trailheads would eliminate the occasionally dispersed and unorganized use of the area that has occurred in the past.

The prohibition of dispersed camping may have an adverse impact on the population that prefers low- to no-cost camping; however, fee-based facilities would still be available. Proposed facilities would enable these users to park in designated areas with designated picnic tables and associated amenities such as

public restrooms and trash receptacles. In addition, dispersed camping would continue to be available in other areas of the SMNRA; however, many of these locations are a greater travel distance from the Las Vegas area. Other visitor services would be available at no charge, such as basic visitor information services, parking at the Village, many of the outdoor facilities in the Village and Valley areas, and use of the trails and trailheads.

In general, the Proposed Action would improve visitor facilities and enhance the quality, amount, and availability of the recreation resources.

A beneficial social effect of the relocation and consolidation of fire, police, and administrative facilities of the Forest Service, Clark County, Metro, NDOT, and NDF would be increased communication and coordination among these agencies in the event of an emergency. The relocation of the Clark County Fire and NDF facilities would result in a shift in the number of public employees located in the upper Kyle Canyon (in the town of Mount Charleston) to the Middle Kyle Complex. Because of the small number of employees, this shift in location would result in few to no adverse economic or social effects. Relocating Clark County Fire and NDF facilities to the Northern Area could increase the response time to emergencies in the upper canyon.

Market Supported Alternative

The construction-related effects for the Market Supported Action are the same as those described for the Proposed Action. Overall, the Market Supported Alternative has fewer amenities to be constructed; therefore, the amount of intermittent construction activity over the proposed 15-year construction period would be decreased. However, the minor beneficial effects on the local economy that could result if workers were to purchase goods and services from local businesses would be the same.

The operation-related effects for the Market Supported Alternative would be similar to those described for the Proposed Action with the following exception. Under this alternative retail services would be limited with only one food vendor/café proposed at the Village. The introduction of this service would not result in an adverse economic effect on local businesses.

3.1.6 Transportation

A summary of proposed transportation improvements to existing facilities within the project area was documented in the *Transportation Technical Memorandum, Middle Kyle Complex* (ICF Jones & Stokes 2009f). The potential environmental effects of implementing the proposed transportation improvements were documented in the resource-specific specialist reports.

Access to the Middle Kyle Complex project is from U.S. Highway 95 (US 95) and SR 157 or SR 156 and SR 158. The location of these transportation facilities is shown on Figure 1-2.

Existing transportation facilities within the project area are shown on Figure 2-1 including the following:

- Three improved National Forest System (NFS) roads and 23 unpaved motorized routes[1]. NFS routes in the project area are open to all motor vehicles, including small OHVs that may not be licensed for highway use as shown on the SMNRA Motor Vehicle Use Map (MVUM) (Forest Service 2009c);
- SR 157 and SR 158 are two-lane paved facilities under the jurisdiction of NDOT. NDOT is responsible for maintenance and operation of these roadways. SR 157 is the primary roadway providing access to Forest Service facilities in Kyle Canyon and the community of Mount Charleston in upper Kyle Canyon. SR 156 is located north of Kyle Canyon and outside of the project area. The three state routes were designated as Nevada Scenic Byways in July 1998 (NDOT 2008). Approximately 6 miles of SR 157 and approximately 4 miles of SR 158 are within the project area; and
- Harris Springs Road, under the jurisdiction of Clark County is an unpaved improved road, and 1.2 miles of this road are located within the project area.

The *Middle Kyle Canyon Development Traffic Study* (PBS&J 2007) was prepared to address traffic impacts that may occur as a result of increased traffic generated by implementing the Middle Kyle Complex project. This study found that with implementing the recommended safety and traffic movement improvements, SR 157 would operate at an acceptable level of service under the forecasted traffic volumes. The proposed improvements to SR 157 and SR 158 are summarized by alternative in Chapter 2, *Alternatives including the Proposed Action* and Appendix B.

Implementation of either action alternative would result in increased traffic congestion and travel time on SR 157 from increased visitation to the project area, proposed reduction in speed limits near the Village area, and changes in the level of service at the proposed intersections. The Market Supported Alternative may include constructing a roundabout at the proposed Village area that would require granting additional highway right-of-way easement to NDOT.

The Business Plan (PricewaterhouseCoopers [PwC] 2008) evaluated the scope, scale, and location of the development and visitor facilities including an investigation of financial considerations of various transit model alternatives for shuttle bus service. This evaluation, the *Middle Kyle Canyon Transportation Options Report* concluded that a shuttle bus system would be cost-prohibitive and was not warranted under the visitation scenarios presented in the business plan (Jacobs Carter & Burgess 2007). Additionally, the *Middle Kyle Canyon Development Traffic Study* concluded that the forecasted traffic volumes for the Middle Kyle Complex project indicated that transit (e.g., shuttle system) was not warranted to improve traffic operations on SR 157 (PBS&J 2007). Therefore, infrastructure for a shuttle system was not included in the action alternatives. However, both the Proposed Action and Market Supported Alternative include allocated areas that could be used as a transit center in the future.

[1] The term "route" refers to both trails and roads, e.g., motorized routes would include both NFS roads and trails designated for motor vehicle use.

The action alternatives include proposed changes to public access across private land and egress to permitted occupancies. Improvements (i.e., paving and widening) proposed to Clark County road (Harris Springs Road) included in the Proposed Action would increase traffic speeds on the improved segment. Implementation of the action alternatives may result in the need for public right-of-way acquisition across private land and revision of existing special use permits for permitted occupancies. This information is summarized by alternative in Appendix B.

The *Middle Kyle Complex Project Travel Analysis* (Forest Service 2009b) provided recommendations for improvement, closure, or change in designated use or restrictions on NFS routes and user-created roads and trails in the project area. The draft travel analysis plan was circulated at the same time as the September 2009 DEIS to accommodate public review and comment on the recommendations in the plan. The final travel analysis plan is available on the Humboldt-Toiyabe National Forest web site. Table 3.1-1 provides a summary of the NFS routes proposed for improvement, closure and restoration, or conversion to non-motorized use under each alternative.

Existing NFS routes in the project area, as shown on the MVUM, are currently designated for use by all motorized vehicles including OHVs. Proposed changes to the MVUM on motor vehicle use of these NFS routes are disclosed in this section and the travel analysis; the potential impacts on recreation opportunities for OHV use are discussed in Section 3.2, *Recreation Resources*.

Table 3.1-1. Summary of Proposed Changes to Existing National Forest System Routes by Alternative

NFS Route Number/Location	No Action Alternative	Proposed Action	Market Supported Alternative
45055, Kyle CCC Camp (Western Area)	0.15-mile access road in Kyle CCC Camp with 0.3 mile paved and 0.12 mile unpaved. The culvert and drainage crossing in Kyle wash would be maintained.	Culvert in Kyle wash would be replaced and drainage crossing upgraded to meet Forest Service standards. 0.04 mile would be closed and restored, 0.06 mile paved and remaining 0.05 mile would be maintained as unpaved.	Same as the Proposed Action.
45064, Kyle Canyon Campground Road (Western Area)	0.66-mile paved road in Kyle Canyon Campground. Existing turning radius of roads, turnouts, and drainage crossings would be maintained. Recreational vehicle (RV) use would be maintained to the current size of vehicle. Two culverts and drainage crossings over Kyle wash would be maintained.	Roadway segments would be widened with two-way traffic to double-lane standard, selected roads and parking stalls would be rehabilitated to accommodate larger RVs as appropriate. Existing drainage crossings in Kyle wash would be upgraded to Forest Service standards.	Two-way traffic road segments at existing width would be retained and intervisible turnouts where extra width can be accommodated with minimal resource impact would be added. Selected roads and stalls would be widened and rehabilitated only where removal of existing mature ponderosa pines could be avoided. Drainage crossings in Kyle wash would be upgraded to Forest Service standards.
45065, Fletcher View Campground Road (Western Area)	0.01-mile paved entrance to Fletcher View Campground. The culvert and drainage crossing in Kyle wash would be maintained.	Culvert in Kyle wash would be replaced and drainage crossing upgraded to Forest Service standards.	Same as the Proposed Action.
45077, Kyle-Fletcher Heliport Road (Western Area)	0.2-mile unpaved route with gate. This route is closed to motor vehicle use, excluding authorized vehicles.	Same as the No Action Alternative.	Same as the No Action Alternative.
45530, Telephone Canyon Road (Northern Area)	3.34-mile road would be maintained as unpaved and would remain open to all motorized vehicles.	0.7 mile would be realigned and paved as the main entrance to the Northern Area. A gate would be installed at end of pavement and include a widened gravel shoulder to accommodate foot traffic. 2.6 miles would be converted to non-motorized trail and closed to all motor vehicles north of the gate, excluding authorized vehicles. Drainage crossing would be installed to Forest Service standards.	Same as Proposed Action, except gate would be installed approximately 300 feet south of the gate location under the Proposed Action. Pavement would extend north of gate for access to wildlife rehabilitation facilities by authorized vehicles only.

NFS Route Number/Location	No Action Alternative	Proposed Action	Market Supported Alternative
45530A (Northern Area)	0.42-mile road would be maintained as unpaved and would remain open to all motorized vehicles.	Road would be realigned, paved, and extended to the east by 0.6 mile to provide access to trailhead, equestrian campground, and wastewater treatment areas in the Northern Area.	Same as the Proposed Action, although the facilities accessed would be Forest Service and interagency fire and law enforcement facilities.
45530B (Northern Area)	0.03-mile road would be maintained as unpaved and would remain open to all motorized vehicles.	Road would be closed and restored.	Same as the Proposed Action
45531 (Main Camping and Picnic Area)	2.97-mile road would be maintained as unpaved and would remain open to all motorized vehicles.	Road would be realigned and paved as the main access road through the Main Camping and Picnic Area, a distance of approximately 3 miles. A new road would be constructed, or the existing road improved, parallel to and connecting to SR 157 at each terminus. Abandoned road segments would be restored. Gates near each terminus would be installed at the eastern parking area to provide controlled access within the fee area. Low-water crossing on eastern end of the road would be upgraded.	Same as the Proposed Action.
45531A (Main Camping and Picnic Area)	0.23-mile road would be maintained as unpaved and would remain open to all motorized vehicles.	Road would be realigned and paved for approximately 500 feet as the main entrance off SR 157 to the Main Camping and Picnic Area. 0.14 mile of the road would be closed and restored.	Same as the Proposed Action.
45531B thru 45531H (Main Camping and Picnic Area)	The combined total of 2.02 miles would be maintained as unpaved roads, open to all motorized vehicles.	Roads would be closed and restored.	Same as the Proposed Action.
45532A thru 45532C (Eastern Area)	The combined total of 2.97 miles would be maintained as unpaved roads, open to all motorized vehicles.	A total of 2.97 miles of road would be converted to non-motorized components of the south rim trail system. A new trailhead would be constructed just west of Harris Springs Road on 45532C. Signs and traffic management devices (e.g., barrier rock, fence) would be installed west of Harris Springs Road to discourage unauthorized vehicle access.	Same as the Proposed Action.

NFS Route Number/Location	No Action Alternative	Proposed Action	Market Supported Alternative
45532H (Eastern Area)	0.37-mile road would be maintained as unpaved and would remain open to all motorized vehicles.	Road would be paved providing access to the new trailhead with paved parking area west of Harris Springs Road.	Same as the Proposed Action, except road and trailhead would not be paved.
45532J (Eastern Area)	0.24-mile road would be maintained as unpaved and would remain open to all motorized vehicles.	Road would be closed and restored.	Same as the Proposed Action.
45577,Wooden Pole Power Line Road (Northern Area)	Wooden Pole Power Line Road would be maintained as unpaved road open to all motorized vehicles.	OHV trailhead would be built east of 45577north of SR 157. Trailhead would provide access to existing designated routes open to all motorized vehicles.	Same as the No Action Alternative.
25871 (Northern Area)	0.3-mile unpaved motorized trail branching off 45530 would be maintained and remain open to all motorized vehicles.	Road would be closed and restored.	Same as the Proposed Action.
25872 (Northern Area)	0.9- mile unpaved motorized trail north of SR 157would be maintained. This trail is used for access to the existing overhead utility line and would remain open to all motorized vehicles.	Road would be closed and restored.	Same as the Proposed Action.
25875 (Eastern Area)	0.1-mile unpaved motorized trail branching off 45532A would be maintained and remain open to all motorized vehicles.	Trail would be closed and restored.	Same as the Proposed Action.
25876 (Eastern Area)	0.1-mile unpaved motorized trail branching off 45532C would be maintained and remain open to all motorized vehicles.	Trail would be closed and restored.	Same as the Proposed Action.

Notes:
Routes listed in this table are shown on Figure 2-1, the MVUM, and the Travel Analysis Plan. Table 2-1 lists the total mileages of NFS routes that would be unpaved, paved, closed, and restored or converted to non-motorized trails by alternative. The mileages of unauthorized routes that would be closed and restored and existing and proposed trail mileages are also included in Table 2-1.

3.2 Recreation Resources

Recreation resources within the project area were described in the *Recreation Specialist Report, Middle Kyle Complex* (ICF Jones & Stokes 2009g). The analysis considered the potential direct, indirect, and cumulative effects of each alternative on recreation resources. Detailed information on the analysis conducted can be found in the report, which is on file in the SMNRA office. This section of the EIS summarizes the analysis included in the specialist report, with the exception of cumulative effects, which are discussed in Section 3.7.5, *Cumulative Effects*. The affected environment for recreation resources is described in Section 1.3.1, *Need Statement 1*, and Section 2.2.1, *Alternative 1 - No Action Alternative*. Existing conditions and recreation facilities are depicted on Figure 2-1 and listed in Table 2-1. Table 2-1 also lists the recreation facilities proposed under the Proposed Action and Market Supported Alternative. Refer to the figures contained in Chapters 1 and 2 for the location of proposed recreation facilities and uses.

The Forest Service uses the recreation opportunity system (ROS) to describe the settings in which people choose to experience a particular place and the types of recreation opportunities that tend to occur within these different settings. In short, ROS is a framework for understanding the relationship between landscape setting and recreation experience.

The ROS is organized as a spectrum utilizing the following six classes: Primitive, Semi-primitive Non-motorized, Semi-primitive Motorized, Roaded Natural, Rural, and Urban. Currently, the majority of the project area, including the main activity areas accessed via State Route (SR) 157 and SR 158, has been inventoried as Roaded Natural. Some outlying portions of the project area, including lands east of Telephone Canyon Road, fall within the Semi-primitive Motorized category. These classifications would remain in the No Action Alternative. A very small portion of the Mt. Charleston Wilderness Area lies within the project area's southern analysis boundary, just south of the Valley's trail system; however, there are no planned construction activities within the wilderness. Based on the intent of the Wilderness Act, standard agency policy would be to manage this area and other adjacent wilderness areas with an objective of preserving primitive ROS opportunities to the greatest possible extent.

An explanation of how the ROS classification would change under the Proposed Action and the Market Supported Alternative is discussed in Section 3.2.2, *Changes to the Recreation Opportunity Spectrum*.

3.2.1 Direct and Indirect Effects

Potential direct and indirect effects on recreation resources were analyzed for each of the three alternatives using the following four topic areas:

- Quantity and Diversity of Recreation,
- Location of Recreation,
- Safety and Accessibility for Persons with Disabilities and the Elderly, and
- Visitor Experience and Quality of Recreation.

This framework allowed the analysis of effects to be conducted within a rigid and easily comparable matrix. The four topic areas were derived from analytical tools commonly used in recreation master planning. These topic areas are also reflected in the relevant desired future conditions, goals, standards and guidelines, and the purpose and need for the action as outlined in Chapter 1.

Table 3.2-1 summarizes the direct and indirect effects on recreation resources by alternative.

A typical camp site at the existing Kyle Canyon Campground (April 2008).

Table 3.2-1. Comparison of Effects by Alternative

No Action Alternative	Proposed Action	Market Supported Alternative
QUANTITY AND DIVERSITY OF RECREATION		
This alternative provides visitors to the Middle Kyle Complex area with the lowest quantity and diversity of recreation facilities.	Under this alternative the existing recreation infrastructure would be expanded and upgraded with additional recreation opportunities available to visitors. With new opportunities for recreation provided as indicated in Table 2-1, this alternative offers an increased diversity of recreation opportunities in developed settings.	Similar to the Proposed Action, this alternative offers a more diverse range of developed recreation opportunities than under current conditions. However, the capacity of the facilities (Table 2-1) providing these opportunities would be somewhat smaller than in the Proposed Action. It is anticipated that the smaller capacity of the facilities may correspond more accurately to user demand.
Kyle Canyon Interim Visitor Center with existing facilities (public restrooms, parking for approximately 10 vehicles, and limited interpretive materials) and functions would be maintained as primary source for visitor contact.	The Village and Valley areas would include a visitor center with a bookstore, indoor meeting room, retail, rental, food area, artist-in-residence program, plaza area, landscape and play space, large amphitheater, outdoor classrooms, transit center, wildlife/fishing pond for children, multi-purpose green space, and interpretive exhibits. An underground parking garage and surface parking area would include ± 1,300 spaces. Programs offered in this location would include interpretive, educational, and entertainment programs, as well as community events and activities.	Facilities in the Village and Valley areas would be smaller compared to the Proposed Action, as indicated in Table 2-1. The visitor center would include a bookstore, one retail/sundry/gift space, and a café. The plaza area, amphitheater, and parking facilities would be smaller and the artist-in-residence space would not be constructed. Surface parking would provide for 250 spaces. Programs offered in this location would be similar to those of the Proposed Action, with the exception that this alternative would include an education facility.
No new picnic facilities would be constructed in the project area. Picnicking would continue to occur in developed picnic areas and dispersed areas in the upper canyons and Deer Creek.	New picnic areas would be constructed including 89 sites/136 units (42 single, 47 double) and 6 group sites (4 50-person, 2 25-person).	Fewer picnic sites (46, approximately half that of the Proposed Action) and only one 50-person group site would be constructed.

No Action Alternative	Proposed Action	Market Supported Alternative
Kyle Canyon Campground would continue to provide camping, but would not be reconstructed. No new campgrounds would be constructed in the Middle Kyle Complex project area. The existing Kyle Canyon Campground would be maintained at 26 sites/32 units (20 single, 6 double)	Kyle Canyon Campground would be reconstructed and improved with 29 sites/38 units (21 single, 7 double, 1 triple). New campgrounds would be constructed with 211 sites/291 units (167 single, 35 double, 9 triple) and a small amphitheater. Group facilities would include a small group RV campground with 10 sites, a large group tent campground with 100 sites (2 areas, 50 sites each) and an equestrian campground with 10 sites.	Kyle Canyon Campground reconstruction would be similar to that of the Proposed Action (29 sites/40 units [16 single, 7 double, 1 triple]), but would include camp cabins (3 single, 2double) and a play area. New campgrounds would be constructed with fewer campsites under this alternative (48 sites/62 units [36 single, 10 double, and 2 triple] and a small amphitheater). However, this alternative would provide a broader range of camping facilities and opportunities with the commercial-style campground capable of accommodating Class A RVs with144 sites (71 back-in sites, 48 pull-thru sites, 12 tent sites and 13 camp cabins; with a 15-unit workers' camp). Additional amenities may include a camp store, laundromat, Frisbee golf course, splash pad, playground and two multiuse playing fields. Group and equestrian campsites would not be constructed.
Dispersed camping would continue alongside roads and motorized trails. Established campsites may be closed as necessary to minimize or prevent resource damage.	The Forest Service may implement an administrative action that would prohibit dispersed camping within 300 feet on either side of Forest Service roads and trails open to motorized vehicles, trailheads, county roads, and state highways within the Lee Canyon, Kyle Canyon, and Deer Creek areas of the SMNRA, including connecting and tributary Forest Service routes such as those in the Macks Canyon and Harris Springs areas. Figure 1-4 depicts the areas where dispersed camping would be prohibited.	Same as the Proposed Action.

No Action Alternative	Proposed Action	Market Supported Alternative
Fletcher Canyon Trail (1.6 miles) and trailhead would be maintained for hiking and equestrian use.	Approximately 48 miles of designated non-motorized trails would be constructed for use by hikers, bikers, and equestrians, including 5 new trailheads. Of the 5 new trailheads, one would be an OHV trailhead. Equestrian rental facilities and a corral would be constructed at the trailhead in Telephone Canyon. A mountain bike rental facility would be constructed off Harris Springs Road.	Same as the Proposed Action, with the following exceptions: A total of 43.8 miles of non-motorized trails would be constructed; 5 new trailheads, including a relocated Fletcher Canyon Trailhead with new facilities and additional parking would be constructed; A bridge (non-motorized) would be constructed over Kyle wash and the slot canyon; and The OHV trailhead, equestrian and mountain bike rental facilities would not be constructed.
16 miles of unauthorized trails created by hikers, bikers, equestrians, and OHVs would remain undesignated and may be closed as necessary to reduce or prevent resource damage.	The 16 miles of unauthorized trails in the project area would be closed and restored. Off-trail use would be discouraged but the available mileage of designated trails would increase threefold.	Same as the Proposed Action.
7 miles of unauthorized roads would remain undesignated and may be closed as necessary to reduce or prevent resource damage.	Unauthorized roads would be closed and restored. Concentrating Forest Service staffing in this area would make continued use of unauthorized roads more difficult.	Same as the Proposed Action.
Non-motorized and motorized use (including OHV) of 12.9 miles of designated unpaved NFS roads would continue.	5.2 miles of NFS roads in the project area would be closed to motorized and non-motorized use and the roads would be restored; however, 6 miles would be converted to non-motorized trails and available for hikers, bikers, and equestrians. OHV use would be allowed at the OHV trailhead where a short segment of NFS 45577 is located in the project area. OHV use of this designated road would continue for access to routes outside the project area as designated on the SMNRA MVUM.	Same as the Proposed Action, with the exception that 5.6 miles of NFS roads would be converted to non-motorized trails. The OHV trailhead on NFS 45577 would not be constructed.
Use of 1.4 miles of NFS motorized trails currently on the MVUM (25871, 25872, 25875, and 25876) would continue.	The 1.4 miles of motorized trails would be closed to motorized use and removed from the MVUM. Motorized use of designated NFS routes outside the project area would be permitted as designated on the SMNRA MVUM.	Same as the Proposed Action.

No Action Alternative	Proposed Action	Market Supported Alternative
Hunting and trapping would continue to occur in the project area, as permitted by Nevada Department of Wildlife (NDOW) and Nevada Revised Statutes (NRS). Recreational shooting of firearms (e.g., target practice) would continue to occur.	Discharging a firearm is prohibited within 150 yards of developed recreation facilities (campgrounds, picnic areas, buildings, occupied areas, and trails) and Forest Service facilities (36 Code of Federal Regulations [CFR] 261Subpart A 261.10 [d][1and 2]). The opportunity for shooting in areas in the project area that fall within the CFR criteria, including blackpowder shooting at the Harris Springs site, would be eliminated. Hunting and trapping would continue as permitted by NDOW and NRS on the SMNRA. Implementation of this alternative would not comply with GMP guideline 11.71 and would require an amendment to the GMP. Recreational shooting (e.g., target practice) would be allowed outside 150 yards of the developed areas. See Section 3.6 for additional information on compliance with the GMP.	Same as the Proposed Action.
Wildlife viewing and sightseeing would continue.	Same as the No Action Alternative, although the quality of sightseeing opportunities is expected to improve over the existing conditions due to construction of proposed facilities in the Village and Valley areas.	Same as the Proposed Action.
LOCATION OF RECREATION		
The majority of current recreation use occurs in the few existing developed recreation sites in the project area; that use would be largely unchanged under this alternative as the capacity and nature of those sites would generally limit any major qualitative or quantitative shifts in use. Recreation use does occur and would continue to occur outside of the developed sites. Use patterns and locations would continue to generally be defined by user groups. Without set capacities or controls, use levels could conceivably increase for some activities in some locations, and this development could cause those use patterns to spread over greater areas. Mountain biking might be the most likely candidate for this growth.	The Proposed Action would emphasize providing recreation opportunities in structured settings with defined facilities in defined areas, such as the Village, Valley, picnic areas, campgrounds, and designated trail network. Visitor information and services would encourage and direct visitors to those structured opportunities rather than letting them find their own way in undefined locations. Overall, facilities would be sited in a way that respects the natural and cultural history of the area. Facilities will be arranged and grouped in a way that would allow users to access a variety of different facilities via the trail network, rather than by automobile. Opportunities for dispersed activities in undefined areas would be de-emphasized and less accessible in the project area. Much of that use would be redirected to the developed facilities but some would likely be displaced to other portions of the SMNRA or to other private and public lands in the area.	Recreation opportunities would be structured in a similar approach as in the Proposed Action, in defined areas such as the Village, Valley, picnic areas, campgrounds, and designated trail network. Likewise, the effects described for dispersed activities and trail closures would be the same as the Proposed Action. However, one distinction between the two action alternatives is that Village facilities would be constructed on both sides of SR 157 and would necessitate speed reductions through this area. Traffic calming devices or a roundabout may be constructed.

No Action Alternative	Proposed Action	Market Supported Alternative
	User-created trails, such as equestrian trails and mountain bike trails, would be closed and specific trails designated for these uses. Trail closures and use designations were determined based on safety concerns or where damage to surrounding natural resources was occurring. Consideration was given to provide trails for equestrians and mountain bikers that offer a variety of terrain and level of difficulty.	
SAFETY AND ACCESSIBILITY FOR PERSONS WITH DISABILITIES AND THE ELDERLY		
Visitor safety and accessibility are compromised due to the unstructured nature of the recreation facilities and uses. Accessible recreation facilities are available at Kyle Canyon Interim Visitor Center and Kyle Canyon Campground. Many of these facilities and services do not meet the standards set forth by the Forest Service Outdoor Recreation Accessibility Guidelines (FSORAG) or Forest Service Trail Accessibility Guidelines (FSTAG). Currently there are no trails outside of these developed areas accessible to people with disabilities.	Visitor safety and accessibility would be improved with defined structures, facilities, and uses. Barrier-free design techniques would be applied to new recreation infrastructure to make recreation safe and accessible to people with disabilities and the elderly. Kyle Canyon Campground facilities would be upgraded to the extent practicable to meet accessibility standards set forth by FSORAG and FSTAG. All new restroom and shower facilities would be fully accessible. Accessibility to recreation resources would be increased as trails would be constructed that represent a wide variety of skill and ability levels. Likewise, trails would be designed to meet the needs of different user groups including people with disabilities and the elderly. New 8-foot paved FSTAG trails would be constructed connecting the Fletcher View Campground, the Kyle CCC Camp, and Kyle Canyon Campground to the Village. Additional paved FSTAG trails would connect the Village, Valley, and Main Camping and Picnic areas to the Slot Canyon overlook and trailhead off Harris Springs Road.	Same as the Proposed Action with the exception that the paved FSTAG trail would only extend to the Slot Canyon overlook.
Dispersed camping poses health and safety issues in that it may lead to unsanitary and improper disposal of trash and human waste.	Implementation of the administrative action prohibiting dispersed camping would avoid this situation by directing camping to designated facilities with appropriate trash disposal systems, restrooms, and RV dumps.	Same as the Proposed Action.

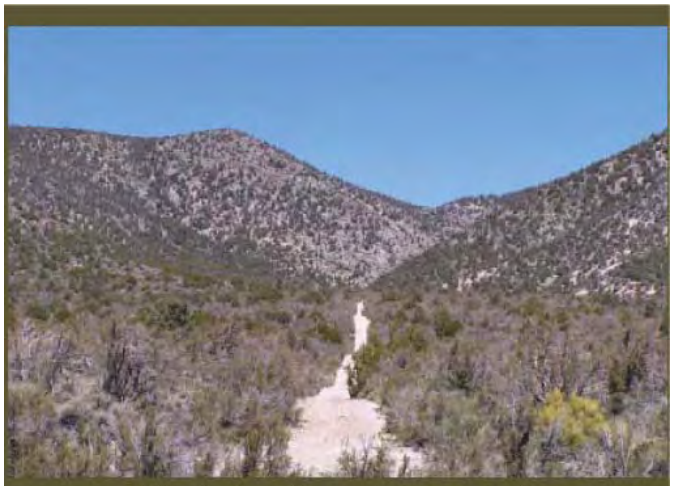
No Action Alternative	Proposed Action	Market Supported Alternative
Passenger car access would continue to be limited to the existing developed sites and trails immediately accessible from the highway. High clearance vehicles would be needed for travel on the more primitive roads.	Visitor safety and accessibility would be improved. All locations with newly developed recreation facilities would have high standard road access, allowing for safe travel by all types of passenger vehicles.	Same as the Proposed Action.
Safety of existing unauthorized trail infrastructure is compromised for all users due to the improvised nature of many of the facilities, lack of designated use areas, and limited information. The existing trail network is currently utilized by equestrians, mountain bikers, OHV users, and hikers. The majority of the trail network is user-created, not designed to any standards, and not formally maintained or signed. Lack of trail use designations has led to unsafe conditions and user conflicts.	Trails would be designated, designed, and managed for appropriate mixes or individual user groups to enhance safety. Trails would be maintained or improved and certain trails would be paved. OHV use would generally be directed to locations outside the project area. This approach would limit conflict between non-motorized and motorized trail users and increase safety within the Middle Kyle Complex.	Same as the Proposed Action, with the addition of the bridge over Kyle wash and the slot canyon. The bridge may improve safety because trail users on the Rim Trail would not have to utilize Harris Springs Road to access the South Rim Trail system.
Lack of a way-finding infrastructure such as road signs, trail signs, and signed parking areas leads to visitor confusion and disorientation. These conditions result in a lack of understanding of the area and further undermine user safety.	To increase safety for all users, every trail and road would be signed and designated uses would be clearly identified. Other way-finding tools such as information kiosks with trail maps and mileages would be posted at all trailheads.	Same as the Proposed Action.
Hunting, trapping, and shooting of firearms would continue to occur in the area. These activities pose potential safety issues to other users such as hikers, bikers, and equestrians.	Discharging a firearm is prohibited within 150 yards of developed recreation facilities (campgrounds, picnic areas, buildings, occupied areas, and trails) and Forest Service facilities (36 CFR 261Subpart A 261.10 [d][1and 2]). Safety would be improved for hikers, bikers, and equestrians within these areas. Recreational shooting (e.g., target practice) would be allowed outside 150 yards of the developed areas. Hunting and trapping would continue as permitted by NDOW and NRS on the SMNRA.	Same as the Proposed Action.

No Action Alternative	Proposed Action	Market Supported Alternative
VISITOR EXPERIENCE AND QUALITY OF RECREATION		
Lack of visitor safety, way-finding infrastructure, and accessibility undermine the quality of the visitor experience. Existing campground facilities are in declining condition as facilities age and become more outdated and maintenance backlogs increase. Further, visitor experience is compromised by the lack of diversity (or range) of opportunities provided by the existing recreation. This alternative provides visitors to the Middle Kyle Complex with the lowest diversity of recreation facilities. This lack of diversity in recreation facilities results in a lack of diversity in user groups who look for facilities, amenities, services, and clear information. Conversely, for those visitors who prefer the freedom to create their own trail or recreational experience, this alternative provides more options.	Increasing the diversity of the developed recreation resources available at the Middle Kyle Complex while improving visitor safety and accessibility would result in an improved visitor experience. Improved visitor information, visitor services, a broader array of educational and entertainment programs, and newly constructed or reconstructed facilities in good condition and offering a broader array of visitor amenities would also improve the quality of visitors' experiences. The Proposed Action offers a diverse range of recreation opportunities. In this alternative, both active and passive pursuits would be provided and would be aimed at a broad range of ages and skill levels. Overall, the range of recreation activities available under the Proposed Action would be designed to better serve a diverse population of users, thus increasing the likelihood of a positive recreation experience regardless of age or ability level. However, opportunities in undeveloped, unstructured settings would be reduced from current conditions. Visitors truly seeking those sorts of experiences may be less satisfied under the Proposed Action. Overall, the management of the site would improve and would likely result in improved visitor experience.	Same as the Proposed Action, with the addition of the bridge over Kyle wash and the slot canyon. This feature would offer an interesting and unique recreation experience, in addition to providing the site with a continuous and uninterrupted trail system by connecting the north and south rim trail systems. Visitor experience may be positively affected because trail users would be able to stay on trails, rather than needing to utilize a portion of Harris Springs Road to connect between the two trail systems.

Note: When referring to picnic or camp sites, a "site" is an individually developed area that may be a single unit, double unit or triple unit. The term "unit" refers to the number of family units at a site. For example, a triple unit would have parking space for three vehicles, three picnic tables, and three tent pads at a single location, and would be counted as three units. All quantities presented in this table are approximate; actual quantities may vary after final design and site layout has been completed. Information presented in this table is a summary detail only. For additional information refer to the alternative descriptions and figures provided in Chapter 2, *Alternatives, Including the Proposed Action* and Appendix B, *Detailed Comparison of Alternatives*. Quantities provided in this table are for areas within the Middle Kyle Complex project area.

In summary, implementation of the Proposed Action or Market Supported Alternative would reduce the opportunities for dispersed unmanaged recreation activities in the project area as compared with the No Action Alternative because unauthorized trails, routes, and campsites in the project area would be closed and restored or converted to designated uses. Much of that use would be redirected to the developed facilities proposed for construction, while some users would likely be displaced to other areas of the SMNRA. Shooting of firearms would also be redirected to other areas of the SMNRA as permitted by NDOW and NRS due to the prohibition on discharging firearms near developed recreation and Forest Service facilities. Recreational shooting (e.g., target practice) would be allowed outside 150 yards of the developed areas. Hunting and trapping within the project area would continue as permitted by NDOW and the NRS and as allowed under 36 CFR 261Subpart A 261.10 (d)(1and 2).

OHV use would only be allowed on the segment of the designated road (NFS 45577) within the project area for access to designated routes outside the Middle Kyle Complex area. Analysis of the OHV market in the Business Plan indicated that the Middle Kyle Complex project area has inadequate trail mileage or various levels of challenging terrain to sustain a viable OHV trail system. Relative to the east side, the analysis identified the west and north sides of the SMNRA and adjacent Bureau of Land Management (BLM) lands as more viable and sustainable for an OHV system (PwC 2008).



The proposed OHV trailhead would be constructed under the Proposed Action providing access to designated motorized routes. NFS road 45577 is shown in this photo.

It is anticipated that construction of the proposed recreation facilities would provide a beneficial effect for most users that would offset the displacement of dispersed recreation activities. Dispersed recreation activities would still be available in other areas of the SMNRA as well as on adjacent BLM lands throughout Clark County. Overall implementation of the Middle Kyle Complex project would increase the diversity and quantity of recreation opportunities for a broader range of users than currently exists, would improve visitor safety, and would provide accessible recreation facilities; the visitor experience and quality of recreation would therefore be improved.

3.2.2 Changes to the Recreation Opportunity Spectrum

The ROS is a system utilized by the Forest Service to understand the settings in which people choose to experience a particular place and what types of recreation opportunities tend to occur within these different settings.

Seven factors are used to determine classification within the ROS spectrum. Below is a summary of these seven factors:

- Access: This factor refers to type and mode of travel.
- Remoteness: This factor refers to the extent to which individuals perceive themselves removed from the sights and sounds of human activity.
- Social Encounters: This factor refers to the number and type of other recreationists met along roads and trails, or camped within sight or sound of others.
- Visitor Management: This factor refers to the degree to which visitors are regulated and controlled as well as the level of information and services provided for visitor enjoyment.
- Facilities and Site Management: This factor refers to the level of site development.
- Visitor Impacts: This factor refers to the impacts of visitor use on the environment.
- Naturalness: This factor refers to the degree of naturalness of the setting; it affects psychological outcomes associated with enjoying nature.

Currently, the majority of the project area, including the proposed main activity areas accessed via SR 157 and SR 158, has been inventoried as Roaded Natural. This Roaded Natural status is largely determined by the Access factor because the project area is situated along the state highways. Some outlying areas, including areas east of Telephone Canyon Road, fall within the Semi-primitive Motorized category. These classifications would remain under the No Action Alternative. Table 3.2-2 summarizes the ROS analysis by alternative.

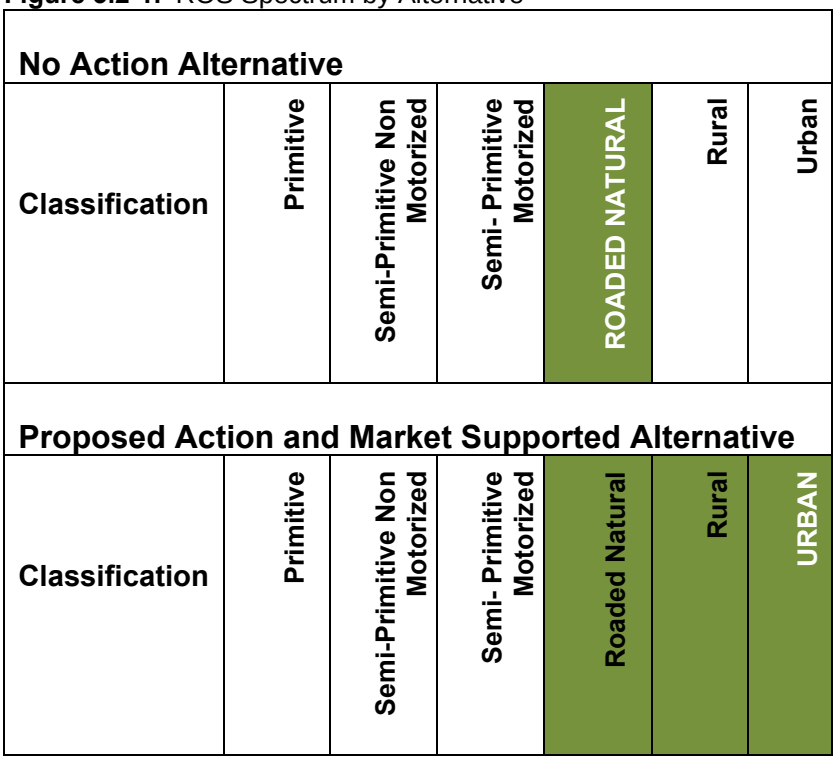
Table 3.2-2: ROS Analysis for the No Action Alternative, Proposed Action, and Market Supported Alternative

Analysis Factors	No Action Alternative	Proposed Action	Market Supported Alternative
Access	Access to the project area includes vehicular access on developed roads, state highways, and primitive roads. SR 157 provides the primary access through the project area, making the area easily accessible but not necessarily facilitating access to all specific locations within the area. Both non-motorized and motorized trails exist within the project area, providing more primitive access from the highway to many more remote corners of the project area. Opportunities for cross-country (i.e., non-designated trails and roads) still exist, although motorized travel off of designated routes is prohibited.	Same as No Action Alternative, except for the following differences: ▪ Semi-primitive motorized trails would be closed and opportunities for non-motorized cross-country travel in much of the project area would be developed; ▪ Vehicular access from the highway to both proposed recreation and administrative facilities would be improved via new paved roads and parking areas (displacing more semi-primitive motorized access); ▪ Parking areas would be located at major recreation resources including the Village, trailheads, picnic areas, and camping areas, greatly increasing the capacity of those areas for vehicular access.	Same as the Proposed Action, with the following exceptions: ▪ Vehicular parking capacities would not be as large. Harris Springs Road and the access road to the trailhead would not be paved.
Remoteness	Limited portions of the project area provide some feeling of remoteness due to the ability to be out of sight and sound of human activity. Virtually no area would meet the guideline for the primitive class (more than a 1.5-hour walk). Most of the area provides little to no feeling of remoteness because of the immediate proximity to the highway.	Same as the No Action Alternative except that there would be additional areas, such as the Village and recreation facilities, where a feeling of remoteness will not be relevant. The additional development in the project area would reduce the acreage where visitors could gain a sense of remoteness. Visitors would still be able to access a feeling of remoteness via the trail network.	Same as the Proposed Action.
Social Encounters	Social encounters range from a moderate to high chance of social encounters along primary system roads and trails to less of a chance of social encounters (i.e., fewer than six people per day) in more remote areas of the site.	The newly developed recreation facilities would greatly increase the areas with high likelihood of encountering large numbers of other users, especially in the Village, Valley, campgrounds, and picnic facilities. Areas with lower potential for encounters would be reduced. Overall, social encounters with other users are more likely to occur under this alternative.	Generally the same as the Proposed Action, but with slightly less area with a high potential for large numbers of encounters.

Analysis Factors	No Action Alternative	Proposed Action	Market Supported Alternative
Visitor Management	Visitor management and control ranges from control that is noticeable but harmonizes with the natural environment (i.e., simple information facilities) to no on-site control or information facilities. Controls are primarily located in existing developed sites. Outside of developed sites, controls are minimal.	Management of visitors would be more obvious, with more sophisticated information exhibits and an improved way-finding system would be present. Concentration of on-site staffing of the new visitor facilities would increase the area covered by a higher level of visitor controls/management.	Same as the Proposed Action, but with less developed area with high levels of visitor controls/management.
Facilities and Site Management	Level of site development ranges from rustic to moderately developed facilities that provide some comfort for the user (in existing developed recreation sites) to no facilities and no site development over the majority of the project area.	The number and variety of recreation facilities would greatly increase. Facilities would be designed for the comfort and convenience of the visitor and may be highly developed, complex, and refined but in harmony with the setting. The Village is an example of a highly developed facility.	Same as the Proposed Action, except that the commercial-style campground proposed under the Market Supported Alternative would be highly developed. This facility should be in harmony with the setting.
Visitor Impacts	Visitor impacts include disturbance of areas around developed recreation sites; site compaction and loss of understory vegetation in some use areas around campsites in campgrounds and dispersed camping areas; the creation of unauthorized routes by mountain bikers, OHVs, and equestrians; and illegal dumping and litter. The extent of these effects ranges from considerable prevalence and visibility in some highly used locations to no noticeable impacts in other areas. Levels of site hardening to manage visitor impacts range from fully hardened campsites and walkways in existing developed sites to no site hardening in the undeveloped use areas.	Same as No Action Alternative except site hardening would be more prevalent in the newly developed areas. New paved and natural surface trails would also become more prevalent. User-created routes would be eliminated by new trail development. Visitor impacts at dispersed campsites would be significantly reduced with the closure of dispersed camping areas. Illegal dumping and litter and pioneering of new single- and double-track routes would be reduced with improved visitor management and control.	Same as the Proposed Action.
Naturalness	Naturalness ranges from preservation of the natural environment to some modification (i.e., the natural environment of the area has been clearly altered, most notably by the abandoned golf course facilities). Other existing developed facilities contribute varying degrees of modification to the natural setting. In general, the project area is predominantly natural in appearance with the exception of the presence of SR 157 and SR 158.	Same as No Action Alternative except that new developed facilities would contribute new human-made modifications to the natural environment. Some existing modifications would be restored to more natural appearances but most recreation settings would clearly include some level of improved facilities and associated modifications to the natural setting. For example, landscaping with native and limited non-native materials would occur in the Village, campgrounds, picnic areas, and administrative area.	Same as the Proposed Action.

Figure 3.2-1 below illustrates the ROS classification spectrum for the No Action Alternative, Proposed Action, and the Market Supported Alternative.

Figure 3.2-1. ROS Spectrum by Alternative



Besides being used as a system to inventory and explain the types of recreation opportunities that areas provide, the ROS system can also be used as a tool to document management objectives for the desired types of opportunities that should be available, and such desired conditions can be different from actual current conditions. Neither the Toiyabe Land and Resource Management Plan nor the SMNRA General Management Plan mapped specific ROS classes as desired conditions, objectives, standards, or guidelines.

Implementation of the Proposed Action would alter the ROS for Kyle Canyon by expanding the ROS spectrum to include the Rural and Urban classifications for the highly developed areas. The Urban classification is warranted due to the highly developed nature of the Village with the visitor center buildings and outdoor facilities. It is important to note that this development does not mean that areas within the Village could not still have some Rural characteristics such as the landscaped and open space areas. The Rural classification is warranted for the campgrounds, picnic areas, and Valley, which would be less densely and highly developed than the Village but clearly more developed than the Roaded Natural designation. Trail experiences available to visitors would straddle the spectrum of ROS classification from Urban in the Village to Primitive in the wilderness area.

Overall, the project area would have significant zones of Urban, Rural, and Roaded Natural under the Proposed Action. The Urban and Rural settings would

be the most prominent and frequently used settings since they would be the destination areas, but those classifications would be limited to these highly developed zones. Most of the remainder of the project area, which would have more basic facilities (trails and trailheads) or no facilities, would still provide a Roaded Natural recreation setting. Forest Service developed recreation policy discourages developing National Forest facilities and areas to Urban ROS levels. However, at this location the Urban classification is not unwarranted for a variety of reasons. First, the more developed areas (the Village and Valley) where much of the use would be concentrated are located on land already disturbed by the abandoned golf course. Second, this project is unique in that it is located in an area where development is already present with the existing hotel and condominium. An important objective of this project is to create an attractive setting in a unique location with proximity of the urban center of Las Vegas that would be comfortable to those less familiar with a natural setting in order to encourage them to explore the surrounding natural environment.

The ROS classifications under the Market Supported Alternative would be essentially the same as the Proposed Action. The smaller size of the Village and the reduced facilities located here in the Market Supported Alternative would make it feel somewhat less Urban, but it would still be a highly developed area relative to Forest Service norms. Conversely, the commercial-style campground in this alternative would be somewhat more developed than the campground in the Proposed Action, but it would still generally fall within the Rural classification.

3.3 Biological Resources

3.3.1 General Biological Resources

An assessment of general wildlife and wildlife habitats in the Middle Kyle Complex project area was presented, along with sensitive species, in the *Wildlife Biological Specialist Report for the Middle Kyle Complex Project* (ICF Jones & Stokes 2009h).

Affected Environment

The potential effects on wildlife are focused on changes to habitat in addition to disturbance and displacement of individual species. The potential effects on plants include habitat degradation due to ground disturbance by people and animals. Habitat, organized by vegetation series (Nachlinger and Reese 1996), present in the project area include big sagebrush, blackbrush-Stansbury cliffrose, blackbrush/Utah juniper, white fir-ponderosa pine-curlleaf mountain mahogany, singleleaf pinyon pine/big sagebrush, mixed desert shrub, point leaf Manzanita-silk tassel, rubber rabbit brush, Stansbury cliffrose, cliff jamesia/rock spirea-Jaeger ivesia, dwarf mountain mahogany/Jaeger ivesia, montane mass-wasted slope habitat, and wash habitat.

The project area is a mosaic of natural vegetation, Forest Service recreation and other infrastructure, disturbed areas resulting from the operation of the former golf course, and transportation facilities. Impacts resulting from the implementation of the No Action Alternative are not anticipated to be significant since no change in the current use of the project area is anticipated. Some beneficial impacts would result from revegetation and restoration of the former golf course. A list of wildlife species observed in the project area is included in Appendix C.

Direct and Indirect Effects

No Action Alternative

The project area would continue to be used for camping, hiking, mountain biking, equestrian activities, and OHV activities. No improvements to Kyle CCC Camp, Fletcher Canyon Trailhead, or Kyle Canyon Campground would occur. The Proposed Action would not be implemented and no project-related loss or fragmentation of habitat would occur as a result of implementing the No Action Alternative. The project area would continue to be used for dispersed recreation resulting in adverse impacts on individual plants and degradation of wildlife habitat.

Proposed Action

Implementation of the Proposed Action would result in approximately 425 acres of permanent and approximately 653 acres of temporary construction disturbance. Permanent disturbance would result in the removal of individual plants and replacement with recreational and administrative facility components of the Proposed Action. This would occur at various proposed facility locations (e.g., the new and modified campgrounds, picnic areas, trailheads, trails, and administrative buildings). There would be approximately 108 acres of permanent impacts and 32 acres of temporary impacts on vegetation and wildlife habitat occurring within the Village, Valley, and Kyle Canyon Campground. These impacts would occur in areas that were disturbed previously by development activities or ongoing recreational activities and would, therefore, possess less valuable wildlife habitat or large blocks of undisturbed vegetation communities. In addition to the loss of individual plants, potential wildlife habitat fragmentation may occur in areas that are currently undeveloped (north of SR 157 and along the bench south of SR 157). A list of wildlife species observed in the project area is included in Appendix C.

The Proposed Action would accommodate more visitors than the Market Supported Alternative and, therefore, would potentially have greater impacts on vegetation and wildlife habitat from facilities operation than the Market Supported Alternative. This alternative would also have potentially greater impacts on vegetation and wildlife habitat than the No Action Alternative. Temporary impacts include construction-related crushing of vegetation as a result of equipment operations and pedestrian foot traffic from construction crews. A temporary reduction in functional use of the habitat (i.e., foraging, nesting, and shelter) would result from construction activities. The implementation of the project Vegetation Management Plan is anticipated to return the areas temporarily impacted by construction to a natural vegetative state. In addition to these construction-related impacts, operation of the facilities may result in increased human presence in the area resulting in vegetation trampling, highway mortality, wildlife harassment and displacement due to human intrusion and noise.

Because the Proposed Action has the potential to attract more recreational visitors, this alternative is anticipated to have more operational impacts resulting from off-trail recreational use than the No Action Alternative or the Market Supported Alternative. Table 3.3-1 displays the permanent and temporary impacts on the various project area habitat types.

Table 3.3-1. Acreage Summary of Potential Permanent and Temporary Project Impacts that May Result from Implementation of the Proposed Action

Land Cover Type*	Total Habitat Available within Project Area (acres)	Permanent Impact Area (acres)	Temporary Impact Area (acres)	Total Acres of Impact
Desert Shrublands: Big Sagebrush	86.39	3.88	13.14	17.02
Desert Shrublands: Blackbrush/Stansbury Cliffrose	116.30	35.41	28.49	63.90
Desert Shrublands: Blackbrush/Utah Juniper	313.00	34.72	60.91	95.62
Developed	51.48	23.75	12.02	35.77
High Conifer Woodland: White Fir-Ponderosa pine/curlleaf mountain mahogany	34.45	3.91	16.67	20.58
Low Conifer Woodland: Singleleaf Pinyon Pine/Big Sagebrush	2,601.23	123.56	319.72	443.28
Mixed Desert Shrub	38.69	2.70	9.66	12.36
Montane Shrublands: Point leaf Manzanita/Silk Tassel	499.75	52.99	79.97	132.96
Rubber rabbit brush	32.95	29.60	0.77	30.38
Ruderal /Disturbed	21.60	14.60	5.81	20.41
Stansbury Cliffrose	151.49	72.05	35.02	107.07
Steep Slopes and Clifflands: Cliff jamesia/rock spirea-Jaeger ivesia	8.35	0.99	3.28	4.27
Steep Slopes and Clifflands: Dwarf Mountain Mahogany/Jaeger ivesia	6.94	0.16	0.54	0.70
Steep Slopes and Clifflands: Montane Mass-wasted Slopes Habitat	283.57	11.16	32.06	43.21
Wash	57.93	15.04	35.09	50.13
Total	**4,304.12**	**424.52**	**653.15**	**1,077.66**

*Vegetation Series are based on Nachlinger and Reese 1996.

Market Supported Alternative

Implementation of the Market Supported Alternative would result in similar impacts as those described for the Proposed Action. The overall footprint of the Market Supported Alternative is smaller than the Proposed Action, totaling approximately 330 acres of permanent ground disturbance and approximately 579 acres of temporary construction disturbance. The Market Supported Alternative would permanently impact approximately 122 acres and temporarily impact 41 acres of vegetation and wildlife habitat within the proposed Village,

Valley and existing Kyle Canyon Campground. These impacts would occur in areas that were disturbed due to previous or ongoing activities. In addition to loss of individual plants, potential wildlife habitat fragmentation may occur in areas that are currently undeveloped (north of SR 157 and along the bench south of SR 157). A list of wildlife species observed in the project area is included in Appendix C. The facilities identified in the Market Supported Alternative are reduced in scale from the Proposed Action. This alternative would accommodate fewer visitors than the Proposed Action and, therefore, would potentially have fewer impacts on vegetation and wildlife habitat from facilities operation than the Proposed Action, but more impacts than the No Action Alternative. Table 3.3-2 displays the permanent and temporary impacts on the various project area habitat types.

Ephedra and blackbrush in Eastern Area near Harris Springs Road.

Table 3.3-2. Acreage Summary of Potential Permanent and Temporary Project Impacts that May Result from Implementation of the Market Supported Alternative

Land Cover Type*	Total Habitat Available within Project Area (acres)	Permanent Impact Area (acres)	Temporary Impact Area (acres)	Total Acres of Impact
Desert Shrublands: Big Sagebrush	86.39	0.41	3.31	3.73
Desert Shrublands: Blackbrush-Stansbury Cliffrose	116.30	9.50	22.74	32.23
Desert Shrublands: Blackbrush/Utah Juniper	313.00	22.45	54.48	76.92
Developed	51.48	22.23 8.	57	30.80
High Conifer Woodland: White Fir-Ponderosa pine-curlleaf mountain mahogany	34.45	4.34 17	.66	21.99
Low Conifer Woodland: Singleleaf Pinyon Pine/Big Sagebrush	2,601.23	105.88	275.95	381.82
Mixed Desert Shrub	38.69	1.79	6.18	7.97
Montane Shrublands: Point leaf Manzanita-Silk Tassel	499.75	52.05	78.93	130.99
Rubber rabbit brush	32.95	29.56	0.81	30.37
Ruderal/Disturbed	21.60	12.81	5.14	17.95
Stansbury Cliffrose	151.49	44.32 4	1.08	85.40

Land Cover Type*	Total Habitat Available within Project Area (acres)	Permanent Impact Area (acres)	Temporary Impact Area (acres)	Total Acres of Impact
Steep Slopes and Clifflands: Cliff jamesia/rock spirea-Jaeger ivesia	8.35	0.99	3.28	4.27
Steep Slopes and Clifflands: Dwarf Mountain Mahogany/Jaeger ivesia	6.94	0.16	0.54	0.70
Steep Slopes and Clifflands: Montane Mass-wasted Slopes Habitat	283.57	9.23	25.61	34.84
Wash	57.93	15.03	34.79	49.83
Total	**4,304.12**	**330.75**	**579.07**	**909.81**

*Vegetation Series are based on Nachlinger and Reese 1996.

Implementation of Design Criteria that include minimizing vegetation and snag removal to the greatest extent possible, avoiding sensitive habitat, and restoring habitat following construction would reduce these impacts (see Chapter 2, *Design Criteria*).

3.3.2 Spring Mountains Acastus Checkerspot Butterfly Habitat

This section discusses the potential effects of construction of the Middle Kyle Complex project on sensitive biological resources, including effects on habitat of the Spring Mountains acastus checkerspot butterfly. Potential effects on the Spring Mountains acastus checkerspot butterfly were identified as a significant issue by the Forest Service and for this reason the effects analysis is presented below.

Potential impacts on other sensitive species were not identified as a significant issue; the detailed analysis is therefore not presented in the EIS. Table 3.3-3 at the end of this chapter provides a summary of the analysis and potential effects on these sensitive species. The effects analysis for these species is included in the specialist reports on file at the SMNRA office.

The specialist reports listed below were prepared to evaluate potential effects on sensitive species:

- The *Wildlife Biological Assessment/Biological Evaluation, Middle Kyle Complex Project* (ICF Jones & Stokes 2009i) and the *Botany Biological Assessment/Biological Evaluation, Middle Kyle Complex Project* (ICF Jones & Stokes 2009j) considered threatened, endangered, and sensitive species with potential to occur in the Humboldt-Toiyabe National Forest.
- The *Final Wildlife Management Indicator Species Report for the SMNRA Middle Kyle Complex Project* (ICF Jones & Stokes 2009k) and the *Final*

Botanical Management Indicator Species Report for the SMNRA Middle Kyle Complex Project (ICF Jones & Stokes 2009l) evaluated MIS listed in the SMNRA General Management Plan (1996).

- The *Wildlife Biological Specialist Report* (ICF Jones & Stokes 2009h) and the *Botany Biological Specialist Report* (ICF Jones & Stokes 2009m) evaluated the other "species of concern" listed under the SMNRA Conservation Agreement (CA), "covered" species listed under the Clark County Multiple Species Habitat Conservation Plan (MSHCP), neotropical migratory bird species, and the Nevada Natural Heritage Program list of "sensitive taxa" species for Clark County, Nevada (Nevada Heritage Database).

Affected Environment

The Spring Mountains acastus checkerspot butterfly (*Chlosyne acastus robusta*) is endemic to the Spring Mountains of Nevada. It is a subspecies of the species *Chlosyne acastus*, which occurs throughout the western United States from Canada, east to North Dakota, and south through Utah, Colorado, Nevada, and California, and east into New Mexico. The *robusta* subspecies has a restricted distribution within the Spring Mountains at only a few known breeding sites, although its host plant occurs throughout the SMNRA (Hiatt and Boone 2004; NatureServe 2007).

These species is primarily found in riparian areas and in mixed-conifer and pinyon-juniper habitat, but has been recorded in sagebrush (RECON 2000). Many documented sites have been in areas of disturbance or old burns (Boyd and Austin 1999). It uses washes and other linear open areas (e.g., dirt roads and trails) as topographically distinct mate location sites where rabbit brush (*Chrysothamnus* spp.) is often present (Boyd and Austin 1999). Several taxa of rubber rabbit brush (varieties of *Chrysothamnus* and *Ericameria*), including yellow rabbit brush (*Chrysanthamus viscidiflorus*) (Boyd 2004) and perhaps rubber rabbit brush (*Chrysothamnus nauseosus*) (Boyd and Austin 2000; Boyd 2004) are used by the butterfly as larval host plants. Nectar host plants are known to include dogbane (*Apocynum* sp.), Palmer's penstemon (*Penstemon palmeri*), narrowleaf yerba santa (*Eriodictyon angustifolium*), sweetclover (*Melilotus* sp.), ceanothus (*Ceanothus* sp.), lobe-leaf groundsel (*Packera multlobata*) (Boyd and Austin 2000), and golden-eye (*Viguiera multiflora*) (RECON 2000).

The Spring Mountains acastus checkerspot butterfly's flight season is typically from mid-June through early July (Weiss et. al. 1997), but has been recorded as early as the middle of May (Boyd and Austin 1999), and may be as brief as 2 weeks (Boyd and Austin 1999). Key attributes of larval habitat typically include open canopy areas and the presence of larval host plants and nectar sources within close proximity.

The Spring Mountains acastus checkerspot butterfly is listed as a Forest Service sensitive species and is ranked globally as T1 – critically imperiled (NatureServe 2007), and is state ranked as S1. The S1 state ranking indicates that the

Desert ceanothus (Spring Mountains Acastus Checkerspot butterfly nectar plant) and point leaf Manzanita.

subspecies is critically imperiled due to extreme rarity, imminent threats, and/or biological factors at risk (http://heritage.nv.gov/lists/sensan02.htm). It is also listed as a species of concern in the CA for the SMNRA (Forest Service, Intermountain Region et al. 1998) and a covered species under the Clark Country MSHCP (RECON 2000). The species occurs at only 12 known sites adjacent to recreation and transportation areas making it susceptible to local threats (RECON 2000).

To determine where the Spring Mountains acastus checkerspot butterfly and habitat may be present within the project area; surveys were conducted for species sightings and host plant documentation in 2006 and 2007. Areas of direct species observance included: in and adjacent to Kyle wash located south and southeast of the intersection of SR 157 and SR 158; an old golf cart path on the east end of the small terrace south of the Resort on Mount Charleston; a location south of SR 157 and east of the Resort on Mount Charleston; an area just east of the Kyle Canyon Campground; in locations east of the proposed Village and along a proposed hiking/biking/equestrian trail between Telephone Canyon Road and SR 158; and along the southern edge of Kyle Canyon.

Host larval and nectar plants can be found more broadly in the project area and were recorded and mapped throughout the survey area. White rubber rabbit brush (*Ericameria nauseosa* var. *holoceuca*) and viscid rabbit brush (*Chrysothamnus viscidiflorus* var. *viscidiflorus*), were common in the western portion of the survey area, where the butterfly was observed. Viscid rabbit brush is common along the edges of the main Kyle wash and the lower wash in Telephone Canyon. Both taxa are also common along the sides of SR 158. Smooth fruit rabbit brush, variety *leiosperma,* also occurs in the western portion of the survey area. Two other taxa of rabbit brush occur at lower elevations and are restricted to the eastern portion of the survey area where there were no observations of the butterfly. A third variety of rubber rabbit brush—Mojave rabbit brush, var. *mojavensis*—is a common to dominant component of the area's desert scrub habitat and is common in the lower wash. A second variety of sticky-leaf rabbit brush—downy rabbit brush, var. *puberulus*—is a small shrub that occurs at the eastern end of the bench scattered in the blackbrush community, in the survey area south of the wash in the southeastern portion of the survey area, and at mid-elevations on the Angel Peak road. Nectar host plants for the Spring Mountains acastus checkerspot butterfly are common wherever the larval host plants occur and are generally common throughout the entire survey area.

Direct and Indirect Effects

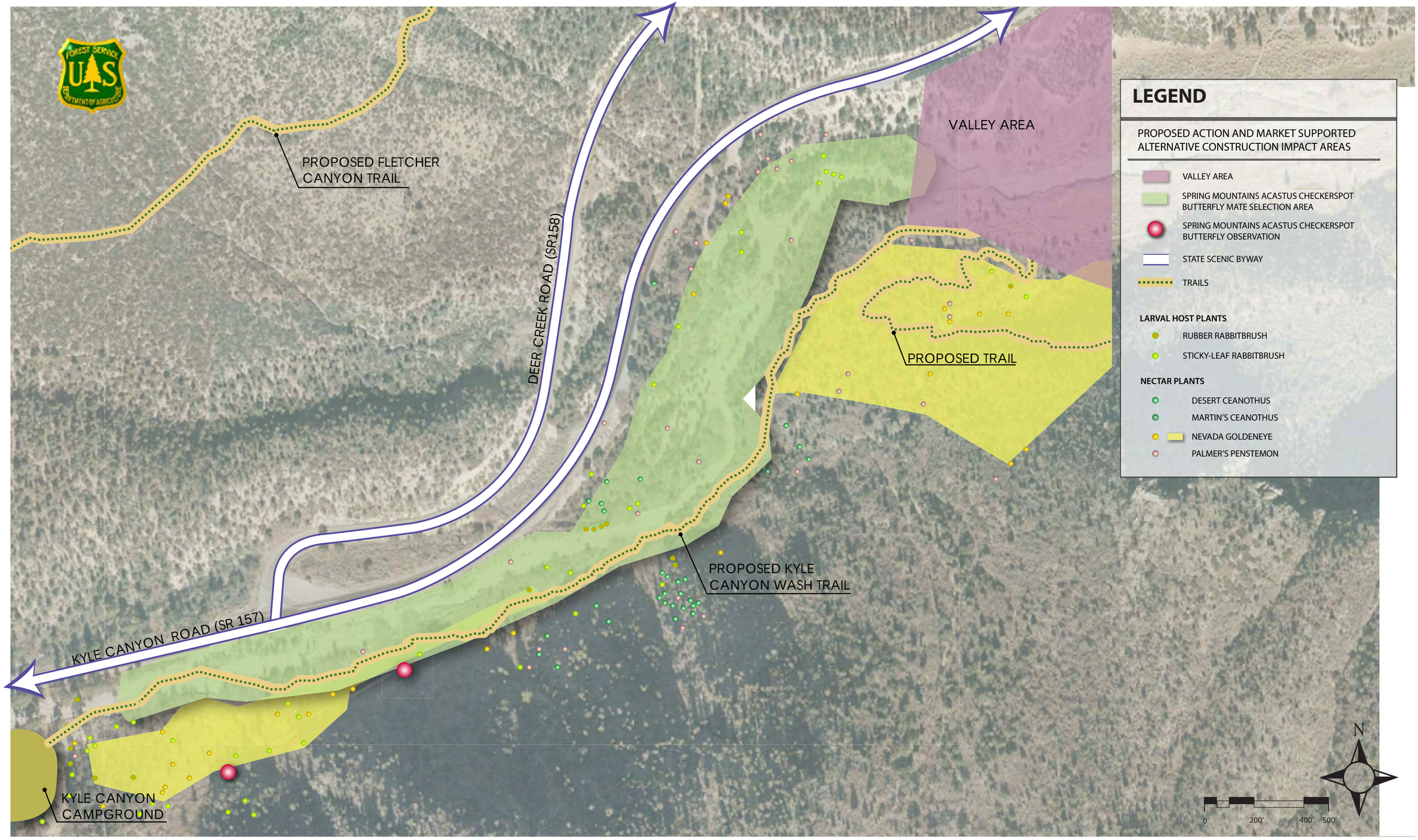
As described in Chapter 2, the Forest Service may implement an administrative action that extends outside the Middle Kyle Complex project area. Under the Proposed Action and the Market Supported Alternative this administrative action proposes prohibiting dispersed camping within 300 feet on either side of Forest Service roads and trails open to motorized vehicles, trailheads, county roads, and state highways within the Lee Canyon, Kyle Canyon, and Deer Creek areas of the SMNRA, including tributary Forest Service routes such as those in Macks Canyon and Harris Springs area. Since no resource studies have been conducted outside the Middle Kyle Complex project area, it is difficult to determine the context and intensity of potential adverse and beneficial effects. Given the lack of information regarding the existing conditions outside the project area and potential effects associated with this action, this analysis is unable to evaluate the direct, indirect, and cumulative effects in detail.

No Action Alternative

The project area would continue to be utilized for camping, hiking, mountain biking, equestrian use, and OHV use. No improvements to Kyle CCC Camp, Fletcher Canyon Trailhead, or Kyle Canyon Campground would occur. The Proposed Action would not be implemented and no project-related loss or fragmentation of habitat would occur as a result of implementing the No Action Alternative. Kyle wash below Kyle Canyon Campground would continue to be used for dispersed recreational hiking resulting in adverse impacts on Spring Mountains acastus checkerspot butterfly host and nectar plants. According to the *Spring Mountains National Recreation Area Landscape Analysis* (Entrix 2008), this type and level of recreational use may result in permanent and temporary loss of habitat, habitat degradation, and injury or death of individual butterflies.

Proposed Action

Implementation of the Proposed Action would result in permanent impacts on approximately 30 acres of potential habitat including over 29.4 acres in the proposed Valley area. These approximate 29.4 acres are the site of the former golf course property. This disturbance within the Valley area is a result of the footprint of the proposed trails and associated dispersed, off-trail hiking and recreational activities in this area. Approximately 0.60 acre of permanent impacts would occur within mate selection habitat in Kyle wash. Temporary impacts include approximately 2.0 acres of potential habitat, including approximately 0.7 acre within the mate selection area and 1.3 acres within Kyle wash outside of the mate selection area and in the Valley area. Figure 3.3-1 depicts the mate selection habitat in Kyle wash. The temporary impacts include habitat alteration resulting from vegetation crushing and soil compaction during construction activities. These areas are expected to return to pre-disturbance condition within 2 to 3 years depending on the level and method of revegetation and restoration implemented. The permanent impacts would result in the



MIDDLE KYLE COMPLEX

USDA FOREST SERVICE • SPRING MOUNTAINS NATIONAL RECREATION AREA

FIGURE 3.3-1: SPRING MOUNTAINS ACASTUS CHECKERSPOT BUTTERFLY HABITAT IN KYLE WASH

removal of habitat due to operation and maintenance of the proposed Kyle Canyon Wash Trail.

Implementation of the Proposed Action would result in the permanent removal of larval host and nectar plants within the Kyle Canyon colony. The proposed trail alignment was designed through coordination with the U.S. Fish and Wildlife Service (USFWS) to minimize adverse impacts on the primary butterfly habitat within Kyle wash. While the majority of the habitat would be avoided by the implementation of this alternative, some direct conversion of habitat to trail bed would occur resulting in a permanent loss of habitat. In addition, some construction impacts would result in crushing host and nectar plants. If butterfly larvae are present on these plants at the time of facility construction, some mortality of individuals may occur.

Restricting the construction of the proposed Kyle Canyon Wash Trail and buried utilities to outside the butterfly flight periods will reduce potential impacts on individual flight-stage adult Spring Mountains acastus checkerspot butterflies within the Kyle wash colony. This would also minimize the disturbance of mate selection behavior and foraging of individuals of the species.

Some limited reconstruction of the trails and topography within the proposed Valley area may result in short-term impacts on vegetation on the property. Reconstruction of the proposed hiking trails and the revegetation and restoration of the site will provide some additional Spring Mountains acastus checkerspot butterfly habitat and enhance the overall habitat within the Kyle wash colony.

Operation of the proposed trail facility is anticipated to increase recreational hiking within this portion of Kyle wash. While it is anticipated that the majority of the hiking will occur on the proposed trail, some off-trail hiking through the wash is likely to occur. The off-trail hiking may result in host and nectar plant trampling; trampling of individual butterflies; and harassment of individuals during foraging, resting, or mating activities.

Overall, it was determined that the Proposed Action may impact individuals, but is not likely to result in a trend toward federal listing or loss of viability to the Spring Mountains acastus checkerspot butterfly. Implementation of design criterion W5 (see Table 2-4) would minimize effects from construction activities on this species.

Cumulative effects on the Spring Mountains acastus checkerspot butterfly are included in Section 3.4.5, *Cumulative Effects.*

Market Supported Alternative

The direct, indirect, and cumulative impacts associated with implementation of the Market Supported Alternative would be the same as the impacts described for the Proposed Action. The proposed alignment of the Kyle Canyon Wash Trail is in the same location as that described under the Proposed Action. Overall, it was determined that the Market Supported Alternative may impact individuals of the species, but is not likely to result in a trend toward federal listing or loss of

viability of the Spring Mountains acastus checkerspot butterfly. Design criterion W5 (see Table 2-4) would minimize effects from construction activities.

Mitigation Measure – Wildlife 1

To further reduce impacts on the Spring Mountains acastus checkerspot butterfly, a permanent fence would be constructed at Kyle Canyon Campground to funnel trail users onto the Kyle Canyon Wash Trail, including a fence along the first 100 feet of the trail. Recreation use of the Kyle Canyon Wash Trail in the mate selection habitat area will be monitored for impacts off the designated trail and additional fence sections installed if necessary to prevent impacts from user-created trails.

This mitigation measure is common to both the Proposed Action and the Market Supported Alternative.

3.3.3 Summary of Effects on Sensitive Biological Species Analyzed in Detail

More than 155 wildlife and plants species were considered in the analysis conducted for the EIS; 80 were analyzed in detail. Species that were not analyzed in detail were not observed during surveys conducted in the project area, do not occur in the project area, or do not occur, nor have the probability to occur, in the SMNRA. Therefore, there would be no effect on these species as a result of the Middle Kyle Complex project.

Table 3.3-3 summarizes the direct effects analysis for each species. Indirect effects for alternatives are addressed in Section 3.3.1, *General Biological Resources*.

Clokey paintbrush, an MSHCP covered species.

Table 3.3-3. Summary of Species Analyzed in Detail and Determination of Effects for the Proposed Action and Market Supported Alternative

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
U.S. FISH & WILDLIFE SERVICE FEDERALLY LISTED THREATENED, ENDANGERED, OR CANDIDATE SPECIES				
Southwestern willow flycatcher (*Empidonax traillii extimus*)	Endangered	No effect	No riparian vegetation occurs within or near the project area. The southwestern willow flycatcher is not known to nest in or adjacent to the action area. No southwestern willow flycatchers were observed during the avian surveys for the project.	Same as the Proposed Action.
Desert tortoise (*Gopherus agassizii*)	Threatened	No effect	No project-related loss or fragmentation of habitat would occur as a result of implementing the Proposed Action. The project is located above the known elevation limit of Mojave desert tortoise; no desert tortoise sign was observed during project surveys, and habitat quality present within the project area is marginal, exhibiting poor foraging opportunities and substrate conditions for burrowing due to elevation and geological conditions.	Same as the Proposed Action.
Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*)	Threatened	No effect	This species occurs in Carpenter Canyon on the west side of the SMNRA within an unrelated drainage basin. The species does not occur within the Proposed Action area.	Same as the Proposed Action.
REGIONAL FORESTER'S (R4) LIST OF SENSITIVE SPECIES FOR THE TOIYABE NATIONAL FOREST				
Pale Townsend's big-eared bat (*Corynorhinus townsendii pallescens*)	Sensitive	No impacts on this species are anticipated as a result of the project	No impact on roost sites would occur as a result of this project. The project will have minimal impact (653 acres temporary / 425 acres permanent) to foraging habitat. Foraging habitat is available across the SMNRA. No springs or water sources are anticipated to be modified as a result of implementing the Proposed Action. The Proposed Action activities are primarily focused near existing disturbance and infrastructure.	Same as the Proposed Action except 579 acres of temporary and 331 acres of permanent foraging habitat would be affected.

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
Spotted bat (*Euderma maculatum*)	Sensitive	No impacts on this species are anticipated as a result of the project	No individuals have been detected in the SMRNA since 1997. No individuals were detected in the project area during acoustical monitoring.	Same as the Proposed Action.
Northern goshawk (*Accipiter gentilis*)	Sensitive	May impact individuals, but is not likely to cause a trend to federal listing or loss of viability	The Proposed Action would temporarily impact approximately 17 and permanently impact approximately 4 acres of the existing white fir-ponderosa pine-curl leaf mountain mahogany habitat. Temporary impacts include prey habitat alteration resulting from understory vegetation removal or crushing during construction activities. Permanent impacts would result in the permanent removal of foraging habitat due to operation and maintenance of proposed facilities.	Same as the Proposed Action except 18 acres of temporary and 4 acres of permanent habitat would be affected.
Peregrine falcon (*Falco peregrinus anatum*)	Sensitive	May impact individuals, but is not likely to cause a trend to federal listing or loss of viability	The Proposed Action would temporarily impact approximately 3 acres and permanently impact approximately 1 of the existing cliff/nesting habitat. The implementation of this alternative would result in the permanent and temporary disturbance of approximately 409 and 604 acres, respectively, of potential foraging habitat.	Same as the Proposed Action except 317 acres permanent and 571 acres temporary potential foraging habitat.
Bald eagle (*Haliaeetus leucocephalus*)	Sensitive	No impacts on this species are anticipated as a result of the project	The project area includes elevation range of this species; however, no individuals are known to occur in the project area and no individuals were recorded.	Same as the Proposed Action.
Flammulated Owl (*Otus flammeolus*)	Sensitive	May impact individuals, but is not likely to cause a trend to federal listing or loss of viability	Proposed Action would temporarily impact approximately 17 acres and permanently impact approximately 4 acres of the existing white fir - ponderosa pine - curlleaf mountain mahogany habitat. Temporary impacts include prey habitat alteration resulting from understory vegetation removal or crushing during construction activities. Permanent impacts would result in the removal of foraging habitat due to operation and maintenance of proposed facilities.	Same as the Proposed Action.

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
Mt. Charleston blue butterfly (*Icaricia shasta charlestonensis*)	Sensitive	No impacts on this species are anticipated as a result of the project	There have been no recorded occurrences in this area since 1995. The project area is within the elevation range of this species; however, no individuals were observed during project area surveys. The host and nectar plant, occur within the project area; however, these plants are widespread.	Same as the Proposed Action.
Spring Mountains acastus checkerspot (*Chlosyne acastus robusta*)	Sensitive	May impact individuals, but is not likely to cause a trend to federal listing or loss of viability to the to the Spring Mountains acastus checkerspot butterfly	Implementation of the Proposed Action would result in permanent impacts on approximately 30 acres of potential habitat including over 29.4 acres in the proposed Valley area. This disturbance in the Valley area is a result of the footprint of the proposed trails and associated dispersed, off-trail hiking and recreational activities within this area. Approximately 0.6 acre of permanent impacts would occur in the mate selection habitat in Kyle wash. Temporary impacts include approximately 2.0 acres of potential habitat, including approximately 0.7 acre within the mate selection area and 1.3 acres in Kyle wash outside of the mate selection area and within the Valley area. The temporary impacts include habitat alteration resulting from vegetation crushing and soil compaction during construction activities. The permanent impacts would result in the permanent removal of habitat due to operation and maintenance of proposed Kyle Canyon Wash Trail. Implementation of Mitigation Measure (MM)-Wildlife 1 will reduce impacts on the mate selection habitat.	Same as the Proposed Action.
Dark Blue *(Euphilotes ancilla purpura*)	Sensitive	May impact individuals of the species, but is not likely to result in a trend toward federal listing or loss of viability	Implementation of the Proposed Action would result in permanent impacts on approximately 34 acres and temporarily impact approximately 18 acres of potential butterfly host and nectar plant habitat. This includes approximately 30 acres of permanent and 0.8 acre of temporary impacts on dark blue butterfly host and nectar plant habitat within Kyle wash, the Kyle Canyon Campground, and the Valley area. The temporary impacts include habitat alteration resulting from vegetation crushing and soil compaction during construction activities. The permanent impacts would result in the removal of habitat primarily due to operation and maintenance of proposed Kyle Canyon Wash Trail.	Same as the Proposed Action.

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
Morand's checkerspot (*Euphydryas anicia morandi*)	Sensitive	No impacts on this species are anticipated as a result of the project	The project area is within the elevation range of the species; however, the upper elevation limits of the project area are at the lower elevation limits of this species known distribution.	Same as the Proposed Action.
Rough Angelica (*Angelica scabrida*)	Sensitive	No impacts on this species are anticipated as a result of the project	The project area is within the elevation range of the species; however, no individuals of this species were observed in the project area.	Same as the Proposed Action.
Rosy King's sandwort (*Arenaria kingii* ssp. *rosea*)	Sensitive	No impacts on this species are anticipated as a result of the project	No records exist for Rosy King's sandwort within the project area and no individuals were detected during project area botanical surveys. The Western Area occurs within the lower limits of the elevation range for this species.	Same as the Proposed Action.
Clokey milkvetch (*Astragalus aequalis*)	Sensitive	May impact individuals, but is not likely to cause a trend to federal listing or loss of viability.	A total of 270 plants affected, as many as 65 plants may be avoided along trails by implementation of MM-Botany 1. Potential habitat would be restored by removal of the Kyle Canyon Interim Visitor Center and associated parking lot. Implementation of the restoration and revegetation activities would improve existing habitat and increase Clokey milkvetch populations within the project area. The use of native plants, including Clokey milkvetch, is prescribed for revegetation of disturbed areas.	Same as the Proposed Action except that there will be 305 plants affected, as many as 65 plants may be avoided along trails by implementation of MM-Botany 1.
Funeral milkvetch (*Astragalus funereus*)	Sensitive	No impacts on this species are anticipated as a result of the project	No individual funeral milkvetch were observed during project area botanical surveys.	Same as the Proposed Action.
Half-ring pod milkvetch (*Astragalus mohavensis* var. *hemigyrus*)	Sensitive	No impacts on this species are anticipated as a result of the project	The half-ring milkvetch is not known to occur in Kyle Canyon. Individual half-ring milkvetch were not observed during project area botanical surveys. The Harris Springs road intersection with SR 157 is at the upper elevation range of this species.	Same as the Proposed Action.

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
Lee Canyon milkvetch (*Astragalus oophorus* var. *clokeyanus*)	Sensitive	No impacts on this species are anticipated as a result of the project	Lee Canyon milkvetch is not known to occur in Kyle Canyon, and it was not observed during project area botanical surveys.	Same as the Proposed Action.
Spring Mountains milkvetch (*Astragalus remotus*)	Sensitive	No impacts on this species are anticipated as a result of the project	Spring Mountains milkvetch is not known to occur in Kyle Canyon and it was not observed during project area botanical surveys.	Same as the Proposed Action.
New York Mountain Catseye *Cryptantha tumulosa*)	Sensitive	May impact individuals of the species, but is not likely to result in a trend toward federal listing or loss of viability	2,213 plants would be affected out of approximately 7,600 plants observed in the project area. This species is an annual whose numbers fluctuate depending on annual rainfall and available soil habitat.	Same as the Proposed Action except that 2,155 plants will be affected out of approximately 7,600 plants observed in the project area.
Nevada willowherb (*Epilobium nevadense*)	Sensitive	No impacts on this species are anticipated as a result of the project	Nevada willowherb was not observed during project area botanical surveys. The project area is near the lower elevation range for this species.	Same as the Proposed Action.
Spring Mountains goldenweed (*Ericameria compacta*)	Sensitive	No impacts on this species are anticipated as a result of the project	Spring Mountains goldenweed was not observed during project area botanical surveys. The project area is near the lower elevation range for this species.	Same as the Proposed Action.
Clokey buckwheat (*Erionogum hermannii clokeyi*)	Sensitive	No impacts on this species are anticipated as a result of the project	Clokey buckwheat was not observed during project area botanical surveys. Past observations within lower Kyle Canyon appear to be var. *sulcatum*.	Same as the Proposed Action.

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
Clokey greasebush (*Glossopetalon clokeyi*)	Sensitive	May impact individuals of the species, but is not likely to result in a trend toward federal listing or loss of viability	Potential impacts on Clokey greasebush includes 431 plants affected without MM-Botany 2; 1 plant affected with MM-Botany 2. Approximately 1,000 individual plants were observed in the project area.	Same as the Proposed Action.
Smooth dwarf greasebush (*Glossopetalon pungens glabrum*)	Sensitive	No impacts on this species are anticipated as a result of the project	Smooth dwarf greasebush was not observed during project area botanical surveys. This species is not known to occur in Kyle Canyon.	Same as the Proposed Action.
Jaeger ivesia (*Ivesia jaegeri*)	Sensitive	May impact individuals of the species, but is not likely to result in a trend toward federal listing or loss of viability	Potential impacts on Jaeger ivesia includes 3,030 plants affected without MM-Botany 2; 0 plants affected with MM-Botany 2. Approximately 14,500 plants were observed in the project area.	Same as the Proposed Action.
Bicolored penstemon (*Penstemon bicolor* var. *bicolor*)	Sensitive	No impacts on this species are anticipated as a result of the project	Bicolored penstemon was not observed during project area botanical surveys. This species is not known to occur in Kyle Canyon. The Harris Springs road intersection with SR 157is near the upper elevation range for this species.	Same as the Proposed Action.
Rose-colored penstemon (*Penstemon bicolor* var. *roseus*)	Sensitive	No impacts on this species are anticipated as a result of the project	Rose-colored penstemon was not observed during project area botanical surveys. Except for a single 1937 Nevada Natural Heritage record, this species is not known to occur in the SMNRA including Kyle Canyon.	Same as the Proposed Action.
Death Valley beardtongue (*Penstemon fructicformis* ssp. *amargosae*)	Sensitive	No impacts on this species are anticipated as a result of the project	Death Valley beardtongue was not observed during project area botanical surveys. The project area is above the elevation range of this species.	Same as the Proposed Action.

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
Clokey mountain sage (*Salvia dorrii* var. *clokeyi*)	Sensitive	No impacts on this species are anticipated as a result of the project	Clokey mountain sage was not observed during project area botanical surveys. This species is known to occur in Kyle Canyon; however, no plants are expected to be impacted by implementation of the proposed project.	Same as the Proposed Action.
Charleston ground daisy (*Townsendia jonesii* var. *tumulosa*)	Sensitive	No impacts on this species are anticipated as a result of the project	Charleston ground daisy was not observed during project area botanical surveys. This species is known from SR 156 and within upper Kyle Canyon outside the project area.	Same as the Proposed Action.
CONSERVATION AGREEMENT SPECIES (CA) AND MSHCP COVERED SPECIES (COVERED)				
Allen's Lappet-browed bat (*Idionycteris phyllotis*)	CA	The proposed project would adversely impact foraging habitat but would not impact species viability	Approximately 653 acres of foraging habitat would be temporarily impacted during construction and 425 acres would be permanently impacted as a result of implementing the Proposed Action. These impacts are within the vegetated areas of the Proposed Action and do not include any open water habitat impacts. The temporary impacts include trampling and/or removing vegetation by equipment during construction of the Proposed Action facilities.	Same as the Proposed Action except the temporary impacts are approximately 579 acres and approximately 331 acres would sustain permanent impacts.
Silver-haired bat (*Lasionycteris noctivagans*)	Covered	The proposed project would adversely impact foraging habitat but would not impact species viability	Approximately 653 acres of foraging habitat would sustain temporary impacts during construction and 425 acres would sustain permanent impacts as a result of implementing the Proposed Action. These impacts are within the vegetated areas of the Proposed Action and do not include any open water habitat impacts. The temporary impacts include trampling and/or removing vegetation by equipment during construction of the Proposed Action facilities.	Same as the Proposed Action except the temporary impacts affect approximately 579 acres and approximately 331 acres would sustain permanent impacts.
Western small-footed myotis (*Myotis ciliolabrum*)	CA	The proposed project would adversely impact foraging habitat but would not impact species viability	Approximately 653 acres of foraging habitat would sustain temporary impacts during construction and 425 acres would sustain permanent impacts as a result of implementing the Proposed Action. The temporary impacts include trampling and/or removing vegetation by equipment during construction of the Proposed Action facilities.	Same as the Proposed Action except the temporary impacts affect approximately 579 acres and approximately 331 acres would sustain permanent impacts.

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
Long-eared myotis (*Myotis evotis*)	Covered, CA	The proposed project would adversely impact foraging habitat but would not impact species viability	Approximately 653 acres of foraging habitat would sustain temporary impacts during construction and 425 acres would sustain permanent impacts as a result of implementing the Proposed Action. The temporary impacts include trampling and/or removing vegetation by equipment during construction of the Proposed Action facilities.	Same as the Proposed Action except the temporary impacts affect approximately 579 acres and approximately 331 acres would sustain permanent impacts
Fringed myotis (*Myotis thysanodes*)	CA	The proposed project would adversely impact foraging habitat but would not impact species viability	Approximately 653 acres of foraging habitat would sustain temporary impacts during construction and 425 acres would sustain permanent impacts as a result of implementing the Proposed Action. The temporary impacts include trampling and/or removing vegetation by equipment during construction of the Proposed Action facilities.	Same as the Proposed Action except the temporary impacts affect approximately 579 acres and approximately 331 acres would sustain permanent impacts.
Long-legged myotis (*Myotis volans*)	Covered, CA	The proposed project would adversely impact foraging habitat but would not impact species viability	Approximately 653 acres of foraging habitat would sustain temporary impacts during construction and 425 acres would sustain permanent impacts as a result of implementing the Proposed Action. The temporary impacts include trampling and/or removing vegetation by equipment during construction of the Proposed Action facilities.	Same as the Proposed Action except the temporary impacts affect approximately 579 acres and approximately 331 acres would sustain permanent impacts
Yuma myotis (*Myotis yumanensis*)	CA	No impacts on this species are anticipated as a result of the project	This species requires large bodies of water for foraging purposes. Its presence within the SMNRA is likely incidental, and its viability is not dependent on habitat within the SMNRA. The lined ponds provide open water foraging habitat. Under the Proposed Action, it is anticipated that the open water habitat would continue to be available for foraging.	Same as the Proposed Action. This alternative would provide additional open-water foraging habitat associated with the lagoons and wildlife rehabilitation facility.
Palmer's Chipmunk (*Neotamias palmeri*)	Covered, CA	The proposed project would adversely impact habitat but would not impact species viability	Project construction activities may impact potentially suitable Palmer's chipmunk denning and foraging habitat. Trees, snags, or downed logs that could be used by Palmer's chipmunk for nesting may be removed from the project area, as necessary. Foraging Palmer's chipmunk in the project area may experience equipment noise and vibration during project construction and noise associated with public use of the proposed facilities. Injury and mortality of Palmer's chipmunk could occur as a	Same as the Proposed Action except the temporary impacts affect approximately 18 acres.

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
			result of collision with construction vehicles and equipment and den collapse/removal caused by mechanical activities during construction. Palmer's chipmunk could become entrapped in open utility trench segments or other excavations during construction, and would be vulnerable to injury, mortality, and predation. 17 acres of habitat would sustain temporary impacts during construction and approximately 4 acres would sustain permanent impacts as a result of implementing the Proposed Action.	
Western burrowing owl (*Athene cunicularia hypugea*)	CA	No impacts on this species are anticipated as a result of the project	The project area is at the extreme edge of this species' range, and management actions are not likely to impact the western burrowing owl and its viability. The project area would continue to be utilized for dispersed camping, hiking, mountain biking, equestrian, and OHV use. Some degradation of nesting and foraging habitat and direct loss of individual nests from collapse may occur.	Same as the Proposed Action.
Phainopepla (*Phainopepla nitens*)	Covered	No impacts on this species are anticipated as a result of the project	No known or observed nest sites occur within or near the Proposed Action area. No riparian vegetation occurs within the Proposed Action area.	Same as the Proposed Action.
Summer tanager (*Piranga rubra*)	Covered	No impacts on this species are anticipated as a result of the project	No known or observed nest sites occur within or near the Proposed Action area. No riparian vegetation occurs within the Proposed Action area.	Same as the Proposed Action.
Banded gecko (*Coleonyx variegatus*)	Covered	The proposed project would adversely impact habitat but would not impact species viability within the SMNRA	Potential impacts on banded gecko include disturbance to habitat, approximately 118 acres of temporary and 91 acres of permanent disturbance. Temporary impacts include trampling and/or removing vegetation by equipment during construction of the Proposed Action facilities. The permanent impacts would result in the permanent removal of foraging habitat due to operation and maintenance of proposed facilities.	Same as the Proposed Action except the temporary impacts affect approximately 92 acres and approximately 47 acres would sustain permanent impacts.

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
Great Basin collared lizard (*Crotophytus insularis bicinctores*)	Covered	The proposed project would adversely impact foraging habitat but would not impact species viability within the SMNRA	Potential impacts on Great Basin collared lizard include disturbance to habitat, approximately 547 acres of temporary and 268 acres of permanent disturbance. The temporary impacts include trampling and/or removing vegetation by equipment during construction of the Proposed Action facilities. The permanent impacts would result in the permanent removal of foraging habitat due to operation and maintenance of proposed facilities.	Same as the Proposed Action except the temporary impacts affect approximately 476 acres and approximately 207 acres would sustain permanent impacts.
Western red-tailed skink (*Eumeces gilberti rubricaudatus*)	Covered	The proposed project would adversely impact foraging habitat but would not impact species viability within the SMNRA	Potential impacts on western red-tailed skink include disturbance to habitat, approximately 35 acres of temporary and 15 acres of permanent disturbance of permanent disturbance, within the project area. The temporary impacts include trampling and/or removing vegetation by equipment during construction of the Proposed Action facilities. The permanent impacts would result in the permanent removal of foraging habitat due to operation and maintenance of proposed facilities.	Same as the Proposed Action.
Large-spotted leopard lizard (*Gambelia wislizenii wislizenii*)	Covered	The proposed project would adversely impact foraging and denning habitat but would not impact species viability within the SMNRA	Potential impacts on large-spotted leopard lizard include disturbance to habitat, approximately 112 acres of temporary and 77 acres of permanent disturbance of permanent disturbance, within the project area. The temporary impacts include trampling and/or removing vegetation by equipment during construction of the Proposed Action facilities. The permanent impacts would result in the permanent removal of foraging habitat due to operation and maintenance of proposed facilities.	Same as the Proposed Action except the temporary impacts affect approximately 87 acres and approximately 34 acres would sustain permanent impacts.

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
Banded Gila monster (*Heloderma suspectum cinctum*)	CA	No direct or indirect effects on Gila monster are anticipated from the implementation of the proposed project	No Gila monster sightings have been documented within or near the project area. Additionally, the project area does not contain suitable habitat for this species.	Same as the Proposed Action.
Western chuckwalla (*Sauromalus ater*)	Covered, CA	No direct or indirect effects on Gila monster are anticipated from the implementation of the proposed project	No known or observed common chuckwalla occurs within or near the project area. Potentially suitable habitat exists in steep slopes and clifflands in the project area; however, project activities are not anticipated to occur within the habitat (i.e., rocky outcrops).	Same as the Proposed Action.
Glossy snake (*Arizona elegans*)	Covered	The proposed project would adversely impact foraging habitat but would not impact species viability within the SMNRA	Potential impacts on the glossy snake include disturbance to habitat, approximately 547 acres of temporary and 268 acres of permanent disturbance, within the project area. Some impacts are anticipated from the continued dispersed recreation use of the area especially from direct mortality from increased vehicular traffic on SR 157, Harris Springs Road, and unpaved designated roads and trails within the project area. The temporary impacts include trampling and/or removing vegetation by equipment during construction of the Proposed Action facilities. The permanent impacts would result in the removal of foraging habitat due to operation and maintenance of proposed facilities.	Same as the Proposed Action except the temporary impacts affect approximately 477 acres and approximately 207 acres would sustain permanent impacts.
Speckled rattlesnake (*Crotalus mitchelli*)	Covered	The proposed project would adversely impact foraging habitat but would not impact species viability within the SMNRA	Potential impacts on the speckled rattlesnake include disturbance to habitat, approximately 547 acres of temporary and 268 acres of permanent disturbance, within the project area. Some impacts are anticipated from the continued dispersed recreation use of the area, including equestrian use. Some direct mortality is anticipated from increased vehicular	Same as the Proposed Action except the temporary impacts affect approximately 477 acres and approximately 207 acres would sustain permanent impacts.

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
			traffic on SR 157, Harris Springs Road, and designated roads and trails within the project area. The temporary impacts include trampling and/or removing vegetation by equipment during construction of the Proposed Action facilities. The permanent impacts would result in the removal of foraging habitat due to operation and maintenance of proposed facilities.	
California (common) kingsnake (*Lampropeltis getulus californiae)*	Covered	The proposed project would adversely impact habitat but would not impact species viability within the SMNRA	Potential impacts on the California kingsnake include disturbance to habitat, approximately 547 acres of temporary and 268 acres of permanent disturbance, within the project area. Some impacts are anticipated from the continued dispersed recreation use of the area especially from habitat fragmentation associated with trails very near rocky outcrops. Direct mortality of individuals could result from increased vehicular traffic on SR 157, Harris Springs Road, and Forest Service-designated roads and trails.	Same as the Proposed Action except the temporary impacts affect approximately 477 acres and approximately 207 acres would sustain permanent impacts.
Sonoran lyre snake (*Trimorphodon biscutatus lambda*)	Covered	The proposed project would adversely impact habitat but would not impact species viability within the SMNRA	Potential impacts on the Sonoran lyre snake include disturbance to habitat, approximately 547 acres of temporary and 268 acres of permanent disturbance, within the project area. Presence has not been documented in the SMNRA. Some impacts on potential habitat are anticipated from the continued dispersed recreation use of the area habitat fragmentation from roads and trails. Some direct mortality may occur from increased vehicular traffic on SR 157, Harris Springs Road, and designated roads and trails within the project area. The temporary impacts include trampling and/or removing vegetation by equipment during construction of the proposed project facilities. The permanent impacts would result in the permanent removal of habitat due to operation and maintenance of proposed facilities.	Same as the Proposed Action except the temporary impacts affect approximately 477 acres and approximately 207 acres would sustain permanent impacts.

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
Spring Mountains comma skipper (*Hesperia comma mojavensis*)	Covered	The proposed project would adversely impact habitat but would not impact species viability within the SMNRA	Potential impacts on the Spring Mountains comma skipper include disturbance to habitat, approximately 605 acres of temporary and 389 acres of permanent disturbance. The temporary impacts include trampling and/or removing vegetation by equipment during construction of the proposed project facilities. The permanent impacts would result in the removal of habitat (physically/mechanically removing host/nectar plants) due to operation and maintenance of proposed facilities.	Same as the Proposed Action except the temporary impacts affect approximately 541 acres and approximately 298 acres would sustain permanent impacts.
Nevada admiral (*Limenitus weidemeyerii nevadae*)	Covered	The proposed project would adversely impact habitat but would not impact species viability within the SMNRA	Potential impacts on the Nevada Admiral include disturbance to habitat, approximately 493 acres of temporary and 311 acres of permanent disturbance. The temporary impacts include trampling and/or removing vegetation by equipment during construction of the proposed project facilities. The permanent impacts would result in the removal of habitat due to operation and maintenance of proposed facilities.	Same as the Proposed Action except the temporary impacts affect approximately 454 acres and approximately 263 acres would sustain permanent impacts.
Spring Mountains icarioides blue butterfly (*Icaricia icarioides austinorum*)	Covered	The proposed project would adversely impact habitat but would not impact species viability within the SMNRA	Potential impacts on the Spring Mountains Icarioides blue include disturbance to habitat, approximately 17 acres of temporary and 4 acres of permanent disturbance. The permanent impacts would result in the permanent removal of habitat due to operation and maintenance of proposed facilities.	Same as the Proposed Action except the temporary impacts affect approximately 18 acres and approximately 4 acres would sustain permanent impacts.
Carole's silverspot butterfly (*Speyeria zerene carolae*)	Covered	The proposed project would adversely impact habitat but would not impact species viability within the SMNRA	Potential impacts on the Carole's silverspot butterfly include disturbance to habitat, approximately17 acres of temporary and 4 acres of permanent disturbance. The permanent impacts would result in the permanent removal of habitat due to operation and maintenance of proposed facilities.	Same as the Proposed Action except the temporary impacts affect approximately 18 acres and approximately 4 acres would sustain permanent impacts.

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
Charleston ant (*Lasius nevadensis*)	CA	No impacts	Surveys for the Charleston ant were not conducted in the project area.	Same as the Proposed Action.
Clokey paintbrush (*Castilleja martinii* var. *clokeyi*)	Covered	The proposed project would adversely impact individual plants and habitat but would not impact species viability within the SMNRA.	Potential impacts on Clokey paintbrush include 1 plant affected. Approximately 70 individual plants were observed in the project area.	Same as the Proposed Action.
Clokey thistle (*Cirsium clokeyi*)	Covered	No impacts on this species are anticipated as a result of the proposed project.	The project area includes elevation range of this species; however, no individuals are known to occur in the project area.	Same as the Proposed Action.
Inch high fleabane (*Erigeron uncialis* var. *conjugans*)	Covered	The proposed project would adversely impact individual plants and habitat but would not impact species viability within the SMNRA.	Potential impacts on inch high fleabane include 347 plants affected without MM-Botany 2; 91 plants affected with MM-Botany 2. Approximately 1,600 individual plants were observed in the project area.	Same as the Proposed Action.
Smooth dwarf greasebush (*Glossopetalon pungens* var. *pungens*)	Covered, CA	No impacts on this species are anticipated as a result of the project.	No records exist for pungent dwarf greasebush within the project area and no individuals were detected during project area botanical surveys. It is unlikely that pungent dwarf greasebush occurs within the project area because the project is located outside the known geographic range of this species.	Same as the Proposed Action.

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
Hitchcock bladderpod (*Lesquerella hitchcockii,* syn. *Physaria hitchcockii* var. *hitchcockii*)	Covered	No impacts on this species are anticipated as a result of the project.	No records exist for Hitchcock bladderpod within the project area and no individuals were detected during project area botanical surveys. Suitable soils and microsite conditions occur in the project area. Potential habitat in the project area consists of pinyon pine/big sagebrush, and white fir-ponderosa pine-curlleaf mountain mahogany and vegetation series with steep slopes and clifflands habitat.	Same as the Proposed Action.
Charleston pinewood lousewort (*Pedicularis semibarbata* var. *charlestonensis*)	Covered	No impacts on this species are anticipated as a result of the project.	One Charleston pinewood lousewort population of 13 plants occurs within the project area. The population will not be directly or indirectly affected by the Proposed Action.	Same as the Proposed Action.
Charleston beardtongue (*Penstemon leiophyllus* var. *keckii*)	Covered, CA	No impacts on this species are anticipated as a result of the project.	No individual Charleston beardtongue were detected during project area botanical surveys. No suitable habitat exists within the project area.	Same as the Proposed Action.
Jaeger beardtongue (*Penstemon thompsoniae* ssp. *jaegeri*)	Covered	The proposed project would adversely impact individual plants and habitat but would not impact species viability within the SMNRA.	Potential impacts on Jaeger beardtongue include 109 plants affected without MM-Botany 2; 0 plants affected with MM-Botany 2. Approximately 300 individual plants were observed in the project area.	Same as the Proposed Action.
Charleston violet (*Viola purpurea* var. *charlestonensis*, syn. *Viola charlestonensis*)	Covered	The proposed project would adversely impact individual plants and habitat but would not impact species viability within the SMNRA.	Potential impacts on Charleston violet includes 199 plants affected without MM-Botany 2; 183 plants affected with MM-Botany 2. Approximately 1,900 plants were observed in the project area.	Same as the Proposed Action except the Potential impacts on Charleston violet includes 204 plants affected without MM-Botany 2; 188 plants affected with MM-Botany 2.

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
MANAGEMENT INDICATOR SPECIES OF THE SMNRA				
Elk (*Cervus canadensis*)	MIS	Not expected to adversely impact viability of elk.	Construction of proposed facilities would result in the permanent loss of approximately 197.6 acres of blackbrush, sagebrush, and pinyon-juniper habitats that represent potential habitat for this species.	Same as the Proposed Action except the permanent impacts affect approximately 138.2 acres
Yellow-rumped warbler (*Dendroica coronata*)	MIS	Not expected to adversely impact yellow-rumped warbler species viability.	The only suitable breeding habitat in the project area is limited to a small area of ponderosa pine forest at the extreme western end of the project area. The construction of this alternative would permanently impact 3.9 acres of suitable habitat.	Same as the Proposed Action except the permanent impacts are approximately 4.3 acres.
Brown-headed cowbird (*Molothrus ater*)	MIS	Beneficial habitat changes/increase population.	Although project actions would permanently impact as much as 424.5 acres of habitat (much of it suitable for cowbird use), the resulting habitat fragmentation and edge where the species is best known to parasitize other birds would increase substantially.	Same as the Proposed Action except the permanent impacts affect approximately 330.7 acres.
Phainopepla (*Phainopepla nitens*)	MIS	No impact.	No habitat for the Phainopepla exists within the project area.	No habitat for the Phainopepla exists within the project area.
Western tanager (*Piranga ludoviciana*)	MIS	Not expected to adversely impact western tanager species viability.	3.9 acres of suitable habitat may be subject to permanent impacts. The only suitable breeding habitat in the project area is limited to a small area of ponderosa pine forest at the extreme western end.	Same as the Proposed Action except the permanent impacts affect approximately 4.3 acres.
Cheatgrass (*Bromus tectorum*)	MIS	There is a potential for spread of non-native invasive species including cheatgrass.	Cheatgrass is most prevalent in the eastern portion of the project area where local infestations exist, and around the 128-acre disturbed area in the western project area. Proposed ground-disturbing actions in these areas, as well as ground-disturbing actions in other portions of the project area (e.g., OHV use, trails, campgrounds, equestrian facilities, recreational support facilities, commercial enterprises, access roads) all have the potential to create conditions conducive to the establishment and spread of cheatgrass. The construction of the Proposed Action would temporarily disturb 653 acres and permanently disturb	Same as the Proposed Action except temporarily impacts would affect 579 acres and permanent impacts would affect 331 acres. Included would be 10 miles of new roadway or roadway improvements and approximately 44 miles of trail or trail improvements.

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
			425 acres of ground. Included are 15 miles of new roadway or roadway improvements and approximately 48 miles of trail or trail improvements. An increase in recreational use (including visitation by vehicles, OHVs, horses and other pack and recreational livestock, mountain bikers, and hikers) is expected to contribute to the spread of cheatgrass under this alternative. The nature of the site disturbance (i.e., narrow corridors and discrete development zones in previously disturbed areas) may help confine weed infestations to limited areas where infestations may be controlled more effectively. Proposed restoration of abandoned roads, trails, and other disturbed sites provides the opportunity to reduce the incidence of cheatgrass in these areas over the long term. This species will be monitored by the Forest Service as part of the ongoing invasive species management plan.	
Red brome (*Bromus rubens*)	MIS	Potential exists for spread of non-native invasive species, including red brome.	Red brome is most prevalent in the eastern portion of the project area where local infestations exist. Proposed improvements in this area include trail, trailhead, and trail access construction. These ground-disturbing actions, as well as ground-disturbing actions in other portions of the project area (e.g., campgrounds, recreational support facilities, equestrian facilities, commercial enterprises, access roads) all have the potential to create conditions conducive to the establishment and spread of red brome. These ground-disturbing actions are estimated at 653 acres of temporary impact under the Proposed Action and 425 acres of permanent disturbance. The total length of new trails and the density of multiuse trails will increase substantially, and will traverse previously undisturbed areas. A large increase in recreational use (including visitation by vehicles, OHVs, horses and other pack and recreational livestock, mountain bikers, and hikers) is expected and may also contribute to the spread of red brome under the Proposed Action. The nature of the site disturbance (i.e., narrow corridors and discrete development zones in	Same as the Proposed Action except temporary impacts would affect 579 acres and permanent impacts would affect 331 acres. Included would be 10 miles of new roadway or roadway improvements and approximately 44 miles of trail or trail improvements.

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
			previously disturbed areas) may help confine weed infestations to limited areas where infestations may be controlled more effectively. Proposed restoration of abandoned roads, trails, and other disturbed sites provides the opportunity to reduce the incidence of red brome in these areas over the long term. Nevertheless, when compared to the No Action Alternative, the proposed ground-disturbing activities and expected recreational use increase opportunities for the establishment and spread of red brome.	
Blue grama grass (Bouteloua gracilis)	MIS	This species could be affected.	Direct and indirect impacts on blue grama grass include trail, trailhead, and trail access construction; infrastructure improvements to retained roads and trails; removal and restoration of unneeded facilities; and new recreational facilities and activities at the Village and Valley sites.	The direct and indirect effects of the Market Supported Alternative on blue grama grass would be similar to or slightly greater than the Proposed Action.
Silk tassel (*Garrya flavescens*)	MIS	This species could be affected	Implementation of the Proposed Action would temporarily impact 80 acres and permanently impact 53 acres of montane shrub habitat known to support this plant; direct and indirect effects on individuals could occur. In addition, 336 acres of temporary impacts and 127.5 acres of permanent impacts would occur to pinyon-juniper, and white-fir ponderosa pine communities that contain some individual silk tassel.	Similar to the Proposed Action, total ground-disturbing impacts of montane shrub habitat would affect 52 acres permanently and 89 acres temporarily. In addition, 294 acres of temporary impacts and 110 acres of permanent impacts would occur to pinyon-juniper and white-fir ponderosa pine communities that contain some individual silk tassel.
Lemmon's hymenoxsis (*Hymenoxys lemmonii*)	MIS	No effect	The Proposed Action is expected to have no direct or indirect effects on Lemmon's hymenoxsis.	Same as the Proposed Action.

Species	Status	Determination of Effects	Proposed Action	Market Supported Alternative
Winterfat (*Krascheninnikovia lanata*)	MIS	No effect	The Proposed Action is expected to have little to no direct or indirect effects on winterfat. Effects on desert shrublands from implementing the Proposed Action include 103 acres of temporary and 74 acres of permanent impacts.	Same as the Proposed Action except 81 acres of temporary and 32 acres of permanent impacts would occur.
Aspen (*Populus tremuloides*)	MIS	No effect	The Proposed Action is expected to have no direct or indirect effects on aspen.	Same as the Proposed Action.
Desert almond (*Prunus fasciculata* var. *fasciculata*)	MIS	This species could be affected	Effects on desert scrubland–blackbrush habitats from implementing the Proposed Action include 89 acres of temporary and 70 acres of permanent impacts.	Same as the Proposed Action except 77 acres of temporary and 32 acres of permanent impacts would occur.
Golden currant (*Ribes aureum* var. *aureum*)	MIS	No effect	The Proposed Action is expected to have no direct or indirect effects on golden currant.	Same as the Proposed Action.

3.4 Cultural Resources

Projects and undertakings on federal lands or that involve federal funding or permits are required by law to take into consideration the effects of projects on significant historic properties within the project area. A reasonable effort must be made to identify and record the properties within the project area and to evaluate their significance in terms of the criteria for assessing the National Register of Historic Places (NRHP) eligibility of the property. The NRHP is a federally established and maintained listing of places and objects significant in American history, architecture, archaeology, engineering, and culture. The Forest Service, in consultation with the Nevada State Historic Preservation Office (SHPO) is responsible for assessing the eligibility of each property for the NRHP and for the determining the effects of the project on all identified properties.

Cultural resource surveys of the project area were conducted to determine the nature and distribution of cultural resources (including but not limited to archaeological resources, ethnographic resources, and historic structures) that could be directly or indirectly affected by project activities. These surveys were conducted during the periods of October and June 2006, May and July 2007, and in September 2008. The *Middle Kyle Complex Cultural Resources Survey* (ICF Jones & Stokes 2009n) was prepared to document all cultural resources within the project area. The report also provides NRHP eligibility and management recommendations for Forest Service consideration. This report is not available for public review, because of the sensitive nature of the information it contains regarding the archaeological sites.

This section of the EIS summarizes the potential environmental effects on cultural resources, with the exception of cumulative effects, which are discussed in Section 3.7.5, *Cumulative Effects*.

3.4.1 Affected Environment

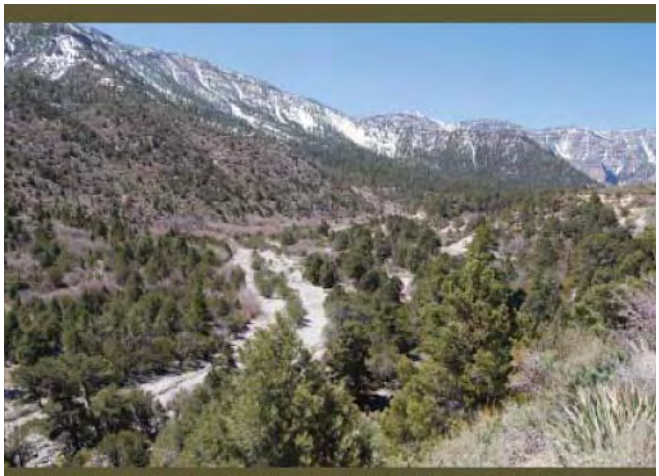
Cultural resource surveys have been conducted in and around the project area since 1972. These surveys recorded multiple prehistoric and historic archaeological sites and historic structures. An inventory of these previously recorded sites is included in the survey conducted for this project, in addition to newly recorded archaeological (prehistoric and historic) and historic structures.

Prehistoric archaeological sites recorded are associated with ancient cultures present in the area from approximately 9,000 years ago to more recent cultures who occupied the area.

Historic archaeological sites and historic structures in the area are associated with the exploration of the Spring Mountains, European/American settlement of Las Vegas, transportation, recreation, logging, and mining. The federal

government has administered the area since the early 1900s. Military presence in the area includes overseeing the CCC in the 1930s and establishment of a gunnery school in 1941.

The Spring Mountains are part of the traditional territory of the Southern Paiute and Chemehuevi (Nuwuvi Nations) in southern Nevada. While each nation has its own significant sites within its territory, all of the Nuwuvi Nations view *Nuvagantu* (literally "where snow sits" or the Spring Mountains landscape) as the sacred place of creation and a true cultural landmark. *Nuvagantu* provides everything the Nuwuvi Nations need to survive as a people, including places to harvest forest products and conduct certain activities (Nuwuvi Working Group and Spoon 2009). To more effectively consult with tribal governments interested in the project area, a working group of tribal representatives from the Nuwuvi Nations has been formed for this project. The Forest Service and the tribal working group have collaborated on the proposed alternatives. In addition, the tribal working group prepared an essay to describe the Nuwuvi relationship to the Spring Mountains landscape and provide readers and the decision maker with a better understanding of the Nuwuvi way of knowing. This essay is presented in Section 3.8, *Nuwuvi and the Spring Mountains Landscape*. The Nuwuvi Working Group will continue to collaborate with the Forest Service throughout the EIS process and into the final design and implementation of the project as appropriate.



All of the Nuwuvi Nations view Nuvagantu (literally "where snow sits") as the sacred place of creation and a true cultural landmark.

There are 15 previously recorded sites (nine prehistoric sites, five historic, one multi-component) in the project APE. Seven of these sites have been included in a larger site boundary within the project area. Two sites are described as two-object isolates apparently collected when they were recorded and therefore would no longer be considered sites under the current NRHP guidelines.

Twenty-two new archaeological sites (four prehistoric, 17 historic, one multi-component) were identified during the Middle Kyle Complex project cultural resources surveys between 2004 and 2008. Three of the archaeological sites identified during the 2004 survey (and assigned trinomials) have subsequently been combined into a single site designated as loci within a larger site. Six sites have been included as loci within a larger site. Three sites recorded by Jones & Stokes during the 2004 survey have also been included as Loci within a larger site.

One historic property, the Kyle Ranger Station, was previously recorded and determined NRHP eligible and is located in the project area. The historic property includes six historic structures constructed in the 1930s by the CCC. The historic structures are located in the area known as the Kyle administrative site and the Kyle CCC Camp. This document refers to the existing area where these structures are located as the Kyle CCC Camp. The existing conditions of this area are discussed in Section 1.3.2, *Need Statement 2*.

The Forest Service is recommending four newly recorded sites be considered NRHP eligible including three historic and one prehistoric site, within the project APE. These sites include a historic-period campsite and artifact scatter with features related to possibly longer term occupancy (tent pad) and is possibly associated with CCC activities in the region; a historic debris scatter; a multicomponent site consisting of a historic artifact scatter dating to ca. 1930s and likely associated with the CCC; and, the Pilsner rock shelter with a lithic scatter.

The project has the potential to adversely affect three historic sites and one prehistoric NRHP-eligible (recommended) sites. The Forest Service and the Nevada SHPO have developed a Programmatic Agreement that will guide Section 106 of the National Historic Preservation Act (NHPA) consultation between the Forest Service, Nevada SHPO, and culturally affiliated tribes throughout project design and construction. In addition, the agreement will guide the development of any cultural resource mitigation identified through the Section 106 consultation process.

3.4.2 Direct and Indirect Effects

Effects on cultural resources consist of qualitative determinations as to whether historic features and recorded sites are preserved and protected. Section 106 of the NHPA allows for projects to result in a finding of "no historic properties affected" (sometimes listed as "no effect"), "no adverse effect," or "adverse effect," as defined below.

- **No Historic Properties Affected (No Effect).** There are either no historic properties present in the APE, or there are historic properties present in the APE, but the undertaking will have no effect on them as defined in 36 CFR 800.16(i).
- **No Adverse Effect.** There could be an effect on a historic property, but the effect would not be harmful to those characteristics that qualify the property for inclusion in or eligibility for the NRHP.
- **Adverse Effect.** Project impacts may directly or indirectly alter any of the characteristics that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association, or a property's ability to offer research potential.

The criteria of adverse effect described in the guidelines for NHPA (36 CFR 800.5[a]) define adverse effects on significant cultural resources as any of the following actions, regardless of whether they occur singly or in combination with one another:

- Physical destruction of or damage to all or part of the property;
- Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines;
- Removal of the property from its historic location;
- Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features;
- Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
- Transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

Potential effects on cultural resources include vandalism and unauthorized artifact collection associated with recreation activities and/or other pursuits in the project area. Ground-disturbing activities associated with construction have the potential to unearth and damage previously undetected archaeological sites.

No Action Alternative

Under the No Action Alternative, much of the project area would continue to be used for unregulated camping, hiking, mountain biking, equestrian, and OHV use. Under this alternative, impacts on historic properties would continue as they have in the past. Historic properties located in areas where recreational use occurs, and is heaviest, would continue to experience some form of disturbance from trampling or concentration of use or directly through removal. Vandalism, site disturbance, and artifact collection would continue to occur as a result of the dispersed nature of recreation activities in the project area. In areas having both high site density and recreational usage, sites impacted by trampling, erosion, vertical and horizontal artifact displacement, and artifact breakage would continue.

The historic structures located in the Kyle CCC Camp would remain in the same location and setting. Existing non-historic structures would remain in the same location and existing Forest Service functions in this area would continue. While the non-historic structures in this area were designed to conform to the historic

setting of the Kyle Ranger Station, these structures were not part of the original facility layout or historic setting. Interpretive information is currently not offered regarding the historic significance of the historic structures constructed by the CCC.

The historic property associated with the Kyle CCC Camp was constructed in the 1930's and is eligible for the National Register of Historic Places.

Proposed Action

The Proposed Action has the potential to adversely affect each of the recommended NRHP-eligible sites. The impacts would result primarily from trail and facility construction and use. Under the Proposed Action the historic structures located at the Kyle CCC Camp would be restored and maintained for managed public use as a historic site. Non-historic structures would be removed and the areas restored.

Under this alternative, impacts on cultural resources are anticipated to result from the construction of proposed facilities in the form of vertical and horizontal displacement and artifact breakage. The recreational activities within the project area may also result in trampling, breakage, vandalism, site disturbance and artifact collection and removal. Implementation of the Proposed Action is anticipated to reduce the dispersed recreation in the area and may reduce impacts on cultural resources associated with this type of use. It is anticipated that implementation of this alternative would have greater adverse impacts on cultural resources than the Market Supported Alternative due to the potential to attract a larger number of visitors to the site.

This is a sacred landscape to Nuwuvi people. The proposed activities and development in general is not culturally compatible in areas of Nuwuvi significance, and would have an adverse impact on the landscape.

Market Supported Alternative

Potential effects on cultural resources under the Market Supported Alternative are anticipated to be similar to those described for the Proposed Action. Slot Canyon trail bridge construction and the commercial style-campground were identified by the Nuwuvi Working Group as areas of high concern regarding impacts on the landscape.

Implementation of the Market Supported Alternative is anticipated to attract fewer visitors than the Proposed Action and, therefore, operational impacts on cultural resources would be less.

3.5 Visual Resources

Visual Quality Objectives (VQOs) are assigned to a landscape based on a variety of factors including the landscape's degree of visibility from primary travelways, visitor use areas and the public's perception of the quality of the landscape. These factors vary by location.

The SMNRA GMP includes a management guideline suggesting that the natural appearance of scenery within the state highway viewshed (the viewshed or viewscape is the area being viewed) be maintained. Such management guidelines identify "preferred or advisable courses of action and allows for operational flexibility."

The Forest Service Visual Management System defines five different VQO classes, which are used to describe desired future conditions (Forest Service 1974). Described below, these classes describe differing levels of alteration that are acceptable within particular viewscapes:

- **Preservation**. Generally, applies to specially designated areas such as wilderness. It requires that no visible changes occur in the landscape from forest development practices. Preservation denotes a very high level of concern for scenic resources and provides for "very high scenic integrity."
- **Retention**. Requires that management activities or alterations not be visually apparent to the casual visitor. The valued landscape character "appears intact." The goal is to ensure that management activities repeat the line, form, color, and texture of the characteristic landscape, thus reducing visual contrast. Retention denotes a high level of concern for scenic resources and provides for "high scenic integrity."
- **Partial Retention**. Human activities may be evident but must remain "visually subordinate" to the characteristic landscape. The valued landscape character may appear slightly altered and provide for "moderate scenic integrity."
- **Modification**. Alterations may dominate the original characteristic visual landscape. However, alterations must borrow from the natural line and form to such an extent and on such a scale that they are comparable to natural occurrences. This objective has "low scenic integrity."
- **Maximum Modification**. Permits a dominant visual change to the characteristic landscape, particularly in the foreground and middleground; however, the activities should appear natural in the background view (generally farther than 3 or 4 miles from the viewer). This objective has "very low scenic integrity."

The Forest Service has not completed detailed visual resource mapping for the Middle Kyle Complex; however, it has developed VQO classifications for the entire SMNRA. Lands within the project area fall within one of three inventory VQO classes: Preservation, Retention or Partial Retention (as shown on

Figure 3.5-1). The Land and Resource Management Plan (LRMP) (1986) for the Toiyabe National Forest provides Forest-wide direction to "protect the scenic quality of the forest by achieving the designated VQOs." This directive generally adopts inventoried VQOs as plan direction except where management area direction provides more specific guidance.

The lands within the foreground and middleground views of SR 157 and 158 are classified as Retention. This Retention corridor varies in width from less than 1,400 feet wide (700 feet on either side of SR 157) to more than 2 miles wide (approximately 1 mile on either side of SR 158). Outlying lands fall within the categories of Preservation, Partial Retention, Modification, and Maximum Modification. Priority is given to the protection of views from primary travelways and primary visitor use areas: particularly foreground views (generally up to 0.5 mile from viewer) and middleground views (generally 0.5 mile to 3 miles) from primary travelways. A very small portion of the project area falls within the Preservation VQO class; however, no construction or alteration is proposed to occur within this area.

3.5.1 Affected Environment

A variety of environmental factors combine to establish the unique visual character of a particular landscape. These factors include natural features such as geology, landform, vegetation, and water features, as well as human-made elements including structures or roads. Within the project area, these attributes coalesce to compose a distinctive and scenic environment that is representative of the Spring Mountains ecosystem.

At the lower elevations near the eastern project boundary, a diverse mosaic of desert plants provides sparse cover. Native species such as yucca, cholla, and blackbrush create a subdued palette dominated by light greens, gray-greens, and grays. Seasonally, these areas are host to brighter colors such as yellow, cream, orange, and purple, as native wildflowers put forth conspicuous blooms.

Desert shrublands occur on open plateaus or rolling hills which offer expansive views of surrounding terrain. From many places in the project area, visitors may observe distant mountain ridges to the east. To the west, Mount Charleston and neighboring peaks provide a focal point throughout much of the project area. From Harris Springs Road, these peaks are evident soaring over the desert plateaus below. Another major feature of the project area is Kyle Canyon itself. In the eastern portion of the project area, SR 157 winds through this drainage, which is comparatively wide in this area. West of Harris Springs Road, the main branch of the canyon is confined to a narrow slot.

West of Harris Springs Road the highway climbs out of the canyon and ascends a gently sloping plateau. Though desert shrubs are still evident, the vegetation gradually transitions to low conifer woodland dominated by Utah juniper and singleleaf pinyon pine. These trees remain small, generally 25 feet or lower. Large native shrubs including mountain mahogany and cliffrose are important components of the vegetation. This plant community covers a large portion of

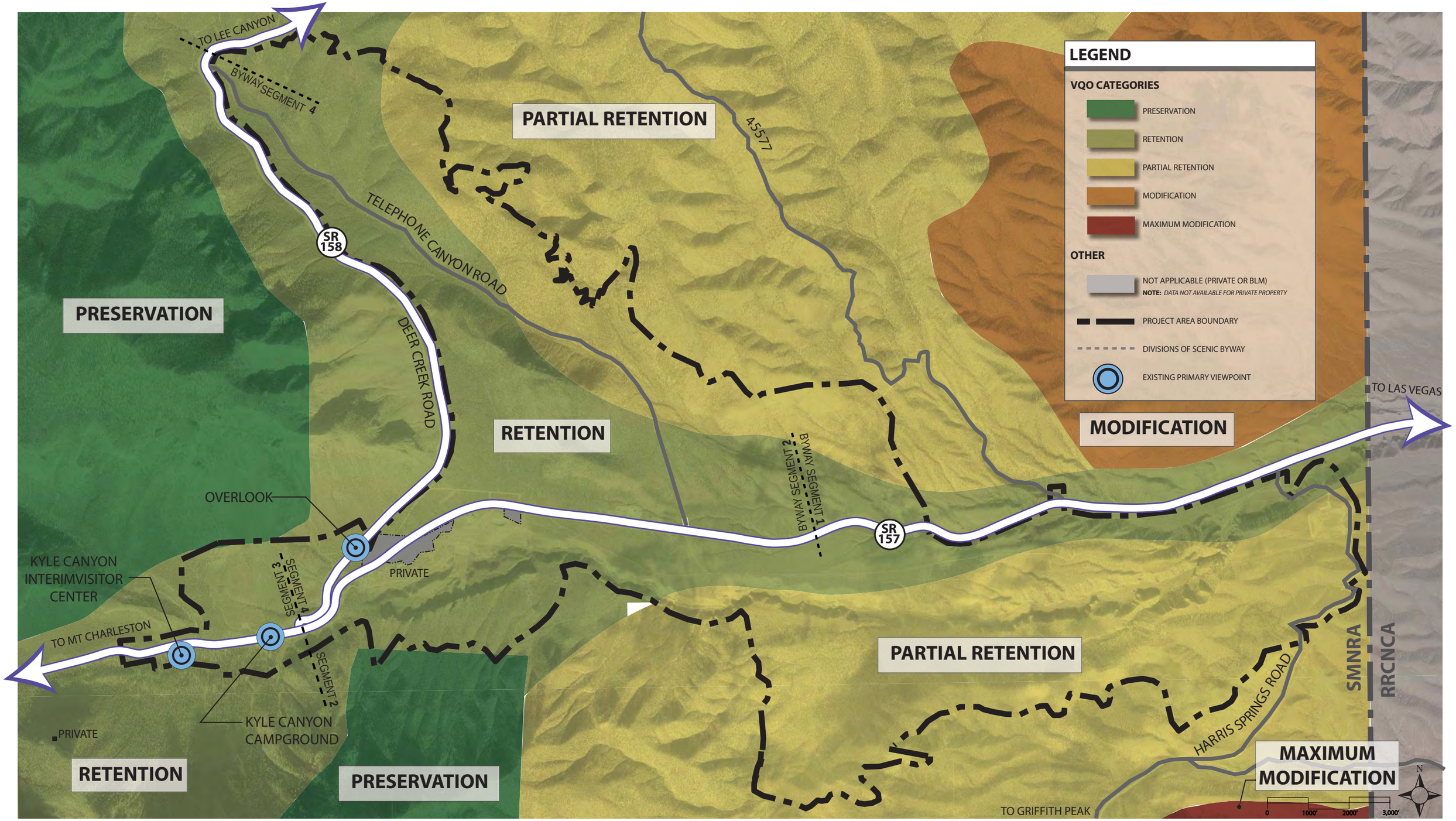


FIGURE 3.5-1: INVENTORIED VISUAL QUALITY OBJECTIVES

the project area including lands surrounding Telephone Canyon and those adjacent to SR 158. In the heart of the project area, a wide, gently sloping plateau extends south to the edge of Kyle Canyon, providing views of distinctive geology both west and east of the canyon. Looking south, across the canyon, a sheer cliff is a conspicuous feature in the view. Looking west, the crest of the Spring Mountains range is a dominant scenic feature.

West of the intersection with SR 158, the character of the natural scenery changes again. In this area, SR 157 follows the bottom of the drainage. Views become confined as the sloping walls of the canyon narrow and vegetation becomes taller. Forests of ponderosa pine and white fir predominate, offering a sense of shelter to the visitor. With their tall, straight trunks, these trees contribute a vertical emphasis to the natural landscape, and establish a deeper, darker palette. Deep browns and reddish browns (the trunks) and deeper greens (needles) replace the gray-greens and light olives of the lower elevation vegetation. Though these forested areas feel more enclosed than the deserts and low conifer woodlands, a visitor may still enjoy striking views of sheer rock faces in the distance. Generally, these geological features are gray or buff.

Nuwuvi consider views to be important cultural resources that contribute to the location and performance of American Indian ceremonialism. Views combined with other cultural resources produce sacred places where power is sought for medicine and other types of ceremonies. Central viewscapes are experienced from high places, including mountaintops and mesa edges. Panoramic American Indian viewscapes gain additional sanctity when they contain highly diverse topography. Viewscape panoramas are further enhanced by the presence of volcanic cones and lava flows. Viewscapes are connected to song and storyscapes, especially when the vantage point has a panorama composed of locations in songs and stories. Vital to the indigenous American Indian experience of viewscapes is isolation.

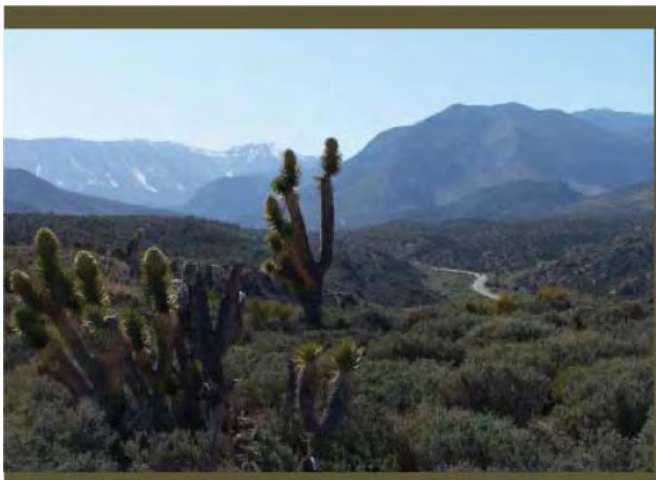
Existing Viewpoints and Views

The Forest Service places priority on the protection of visual resources within view from primary travelways, secondary travelways and primary visitor use areas. Primary travelways include major roads and trails. These linear facilities present a sequence of views. Secondary travelways include Harris Springs Road, NFS 45577, Telephone Canyon Road, and multiple NFS roads. These roads provide access to secondary destinations within the project area and surroundings. Primary visitor use areas include campgrounds, visitor centers, picnic areas, and observation points.

Primary Travelways

The primary travelways in the project area are SR 157 and SR 158, both of which are segments of the Mt. Charleston Scenic Byway. The portions of the travelways were divided into the following four segments (see Figure 3.5-1).

Byway Segment 1


View from Rim Trail overlooking SR 157.

The existing visual condition of Byway Segment 1 would generally meet Retention with some localized conditions more consistent with Partial Retention. This is the eastern extent of SR 157 in the project area. It begins at the entrance to the SMNRA, continues past intersections with Harris Springs Road and NFS 45577, and ends after climbing out of Kyle Canyon and arriving on the level plateau. SR 157 winds through the desert environment of lower Kyle Canyon and maintains a high degree of scenic integrity. Aside from the road itself, there are few human-made features to intrude upon the natural scene: a few unpaved roads and minimal signs. The canyon walls confine views to a relatively narrow area.

Byway Segment 2

The existing visual condition of the national forest lands in Byway Segment 2 could be categorized as meeting Modification VQO due to the scars above and the utilitarian and abandoned developments along the road and, therefore, being inconsistent with GMP guidance. This is the section of SR 157 extending west from Byway Segment 1 to the intersection with SR 158. The scenery that is viewed from Byway Segment 2 is characterized as “mostly natural appearing.” However, several human-made features intrude upon the scene, diminishing the quality of views from the byway. The features include old road scars on the lower flanks of Fletcher Peak, a utility corridor with tall poles that parallels the highway, signs for the Las Vegas Metro, a solid waste transfer station, and the NDOT maintenance yard.

Though partially screened from view by native vegetation, the access roads are visible from the scenic byway. In particular, a remote access weather station associated with the NDOT facility is located adjacent to the road. There is also a large pullout on the north side of the road that creates a large area of bare gravel that interrupts the pattern of native vegetation. The largest disruption to the natural scene is the 128-acre parcel recently acquired by the Forest Service and nearby parcels of private property. The 128-acre parcel, the former golf course property, is screened from the road by a berm and vegetation; however, the chain-link fence is noticeable from the highway along with glimpses of the abandoned parking lot with non-native trees. In addition, several standing buildings on nearby private land can be seen from this segment. Some undeveloped private parcels in this area may eventually be developed, with additional effects on visual quality.

Byway Segment 3

Byway Segment 3 is generally categorized as Partial Retention because of the facilities being evident but still largely subordinate to the natural landscape. This segment includes the SR 157 junction with SR 158 and extends to the western edge of the project area. West of the intersection with SR 158, there are a few minor intrusions to the road's natural viewshed. Forest Service recreational and administrative developments lie within view and are apparent, but they have largely been designed to harmonize with the natural landscape. Kyle Canyon Campground is separated from the highway by Kyle wash and nestled under tall ponderosa pines. The Forest Service administrative and maintenance area is also set back from the road. Because these buildings are modestly scaled and painted brown, they recede from view. The visitor center is adjacent to the road, but it is a small rustic-inspired structure designed to coordinate with the historic Kyle CCC Camp structures in the maintenance area.

Byway Segment 4

Byway Segment 4 meets Modification VQO because of disturbed areas sufficiently dominating the landscape. The portion of SR 158 lying within the project area is very scenic. Overall, there are few built features, except for a small trailhead at the north end of the project area. The highway climbs fairly high as it rounds the flanks of Fletcher Peak. This stretch of highway offers panoramic views to the south and east. Looking west, the natural character of the Mount Charleston Wilderness Area remains intact. On this stretch of road there is an informal pullout that overlooks most of the project area. Overall, this vantage point provides a panoramic and attractive view. Natural scenery within view includes rocky cliffs overlooking Kyle Canyon and distant mountain ridges. The broad terrace to the north of Kyle Canyon is evident in the middleground more than 1 mile away. It appears as a large, flat area of unbroken native vegetation. The curvilinear edge of the plateau defines the course of Kyle Canyon. Several structures and other built features are also evident. In particular, the 128-acre parcel, the site of the proposed Village development, is especially prominent. This disturbed area is located less than 1 mile away and squarely in the center of the view. Leveled building footprints, abandoned surface parking, and other disturbed areas appear as a light gray expanse, contrasting with the gray-greens of the natural surroundings. Ornamental trees stand in neglected beds, and pioneer trees push up through the cracks in the parking area. These elements contribute to the overall character of the area as neglected. This disturbed area dramatically reduces the quality of views from SR 158 and especially this overlook, which is a primary viewpoint in the project area.

Secondary Travelways

Secondary travelways include Harris Springs Road, NFS 45577, Telephone Canyon Road, and multiple NFS roads. The secondary roads are unpaved, fairly primitive, and provide access to secondary destinations within the project area and surroundings. Scenery varies by location, but overall, these roads afford views of natural scenery with few developments. One service road parallels the

north rim of Kyle Canyon leading to an informal overlook of the slot canyon. This is an interesting view, but the presence of an overhead utility line crossing the canyon detracts from the natural character. Along this road to the west lie other viewpoints into Kyle Canyon including one view marred by the presence of an old dumping ground. Cars and other items lay strewn about the canyon in this area.

Unauthorized trails also weave through the project area, including a trail through the slot canyon allowing visitors to be in scenic natural settings. Of note is the trail in the slot canyon. At ground level the slot canyon is an especially scenic geologic feature largely devoid of structures or facilities. The sense of remoteness in this area is somewhat diminished by the presence of litter and graffiti in the slot canyon, motorized trails leading into the canyon, and the long utility line spanning the canyon. This last element, in particular, reduces the visual quality of an otherwise scenic setting.

Primary Use Areas

Existing primary use areas within the project area include Kyle Canyon Campground and Kyle Canyon Interim Visitor Center, which are the only existing areas of concentrated visitor use. Kyle Canyon Campground is located in a very scenic environment, nestled under tall pines, alongside Kyle wash. Views outward are confined to the immediate area by tall trees and steep slopes, though glimpses of distant mountain scenery may be enjoyed. The visitor center was designed to be temporary. This area is also shaded by tall pines, but its proximity to the road makes it very busy and loud during periods of heavy traffic.

Secondary Use Areas

Existing secondary use areas in the project area are largely limited to trailheads and informal pullouts. One area that deserves mention is the 128-acre disturbed area south of SR 157. Though closed, this area receives limited use by residents; it overlooks a comparatively wide stretch of Kyle Canyon, where a former golf course is currently being reclaimed by nature. The quality of views in this area is mixed. To the west, the scenic peaks of the Spring Mountains range are visible. Looking south across the canyon, the line of cliffs is a dramatic backdrop. But the view into this valley includes evidence of the former golf course property. The remnants of two ponds and deteriorating asphalt paths detract from the surrounding natural scenery.

3.5.2 Direct and Indirect Effects

Using the Forest Service methodology for visual resources impact analysis, the direct, indirect, and cumulative effects on visual resources of the three alternatives were examined and determined by:

- Analyzing projected effects of specific proposed facilities on priority views;
- Assessing the collective effects of the project on the natural landscape character of the project area; and
- Determining whether existing VQOs would be met.

The specific effect of a particular proposed facility on visual resources may be either beneficial or adverse:

- Beneficial effects would enhance the existing landscape character or views from primary viewpoints.
- Adverse effects would reduce the existing landscape character or the quality of views from identified viewpoints.

Where possible, the magnitude of the effect on the scenery within view from specific vantage points is quantified. These effects are described as negligible, minor, moderate, or major.

- **Negligible.** Negligible effects would cause imperceptible changes to the relative level of natural appearance to the current landscape, i.e., the landscape would continue to meet the same VQO that it currently does. A landscape that is currently natural in appearance would continue to meet the GMP direction to maintain naturally appearing scenery (Retention VQO).
- **Minor.** Minor effects would be slightly detectable or confined to a small area. These effects would cause a one-level change in the VQO that would be met, at least in that specific location. For example, a minor adverse effect would cause an area that now meets Retention to then meet Partial Retention after implementation.
- **Moderate.** Moderate effects would be those that are readily apparent. They would generally cause a two-level change in the VQO that would be met in that specific location. A moderate adverse effect would cause an area that now meets Retention to meet Modification after implementation.
- **Major.** Major effects are those that are substantial, highly noticeable, and/or result in a change to the overall landscape character. Adverse major effects would cause an area to fall to a Maximum Modification VQO.

The following sections summarize the potential effects on views from primary and secondary travelways and primary use areas. Additional detail and discussion is contained in the *Visual Resources Specialist Report, Middle Kyle Complex* (ICF Jones & Stokes 2009). The cumulative effects are discussed in Section 3.7.5, *Cumulative Effects*.

No Action Alternative

Under the No Action Alternative the Middle Kyle Complex would not be constructed and there would be no effects on the existing visual character. The Mt. Charleston Scenic Byway would continue as the primary travelway through the area and views from this corridor would remain the same. Views from SR 158 of the former golf course property would continue to be apparent and unattractive to visitors. However, the disturbed areas within the former golf course property would undergo restoration to a more natural state, with removal of non-native vegetation, debris and the asphalt trails, although the parking lot would not be removed. These restoration efforts would allow for a higher VQO to be met over time. There would be no new primary or secondary use areas; thus, the overall opportunities for viewing scenery would not be expanded. Because the impact of the disturbed area and other nearby landscape alterations on views from the scenic byway (in Byway Segment 2 and in Byway Segment 4), the Retention VQO would not be achieved. The condition of these views would continue to be consistent with the Modification VQO.

Proposed Action

Under the Proposed Action, the effects on the visual character would be adverse. Overall, when measured against GMP direction to maintain natural-appearing scenery—or at least predominantly natural scenery—the effect of constructing and operating project facilities on the views from the byway would be negative because of the increased amount of apparent landscape alterations associated with the new recreation and administrative facilities.

The potential effects of the Proposed Action to priority views are summarized in Table 3.5-1.

Table 3.5-1. Proposed Action - Direct and Indirect Effects on Existing Views

	Potential Change in Visual Quality Objective Value				
Feature	**No Effect**	**Negligible Effect**	**Minor**	**Moderate**	**Major**
PRIMARY TRAVELWAYS					
Byway Segment 1					
Proposed campgrounds and on-site sewage treatment system with septic tanks and leachfields	No Effect				
New trailhead parking lots (at NFS 45577 and Harris Springs Road)		Negligible Effect			
Proposed improvements in Kyle wash and road cuts associated with upgrading and paving Harris Springs Road			Adverse		

	Potential Change in Visual Quality Objective Value				
Feature	**No Effect**	**Negligible Effect**	**Minor**	**Moderate**	**Major**
Byway Segment 2					
Relocated entrance to NDOT maintenance facility with weather station	No Effect				
Proposed Village and Valley areas New trailhead in Telephone Canyon area with equestrian rental facility		Negligible Effect			
Relocation of Las Vegas Metropolitan Police Proposed campgrounds and picnic areas including campstore/registration area at main entry Relocated interagency fire and law enforcement, and proposed Forest Service administrative and operations facilities including biomass facility Proposed employee/volunteer housing and research center			Adverse		
Biomass heating/cooling plants/stacks				Adverse	
Burial of overhead utility lines and restoration areas including relocation of solid waste transfer station off NFS lands				Beneficial	
Byway Segment 3					
Reconstruction of Kyle Canyon Campground and improvements at Kyle CCC Camp Proposed upgrade at Kyle wash crossing at entrance to Fletcher View Campground		Negligible Effect			
Proposed Kyle Canyon Wash Trail (paved)			Adverse		
Restoration areas (removal of interim visitor center and restrooms)			Beneficial		
Byway Segment 4					
Proposed Village area south of SR 157		Negligible Effect			
Proposed campgrounds and picnic areas Proposed trailheads and parking areas, equestrian campground, biomass facility and Forest Service administrative area				Adverse	

	Potential Change in Visual Quality Objective Value				
Feature	**No Effect**	**Negligible Effect**	**Minor**	**Moderate**	**Major**
SECONDARY TRAVELWAYS					
Proposed closure of a portion of Telephone Canyon Road to motorized vehicles Limiting and concentrating OHV use to designated trailhead and motorized routes Proposed trail use designations (hiking, biking, equestrian) and improvements to existing trail network (including paved multiuse trails) Burial of overhead utility drainage crossings along proposed Rim Trail Clean up of dump area and restoration of helipad site Burial of overhead utility lines along Kyle Canyon Wash Trail			Beneficial		
PRIMARY VISITOR USE AREAS					
Proposed Village		Negligible Effect			
Proposed Valley			Beneficial		

Summary of Effects on Inventoried Visual Quality Objective Zones

Under the Proposed Action, proposed modifications to the trail network would negatively impact visual quality objectives and would be negligible. The improvements would occur on lands inventoried as Retention and Partial Retention. Trails and trailheads would be constructed within Partial Retention zones where roads and trails (authorized and user created) already exist. In fact, many of the existing roads and trails are wider than standard recreational trails and the width would be reduced when converted to trails. This outcome would reduce the visual impact of these existing roads and trails.

The majority of the development in the Proposed Action would occur within areas inventoried as Retention. Some of this development would be minimal, such as trails. Large developed facilities could impact views from primary viewpoints or from the byway. This is true of views of the Village, the campground and picnic areas, and the development north of SR 157, as seen from the Byway Segment 4, as well as views of the Village, as seen in Byway Segment 2 along SR 157. If these developments are designed and built with visual resource considerations in mind, the Proposed Action would meet the stated Modification VQO. These two byway views would be the principal inconsistencies with the GMP guidance to maintain natural-appearing, or at least predominantly natural appearing, scenery.

Effects on Natural Landscape Character

Under the Proposed Action, proposed modifications to the trail network would have a negligible impact on visual quality objectives. Proposed facilities would be located within all three vegetation zones: high desert shrubland, low conifer woodland (or transition zone), and conifer forest.

Localized impacts on landscape character would be greatest in the low conifer zone, where most development would occur. Changes to landscape character in this zone would be evident from SR 157 and from SR 158. The most obvious change would be the more developed nature of the Village area. The Village and other major development proposed in this area would occur in a portion of this zone that is largely devoid of pinyons and junipers, and is instead dominated by cliffrose or cleared of vegetation. Therefore, the planting of pinyons and junipers in these areas would have a positive effect on scenery, moving these areas closer to the desired landscape character. If non-native shade trees were planted instead, the visual contrast with the natural landscape character would be somewhat greater. Restoration of old road scars, old dumping grounds, and other areas would have a moderate beneficial effect on natural landscape character in this zone.

Proposed facilities in high desert shrubland areas would be mostly trails, which would result in negligible effects on the natural landscape character. Developments in the forest zone would also be minimal, with little or no overall effect on landscape character.

The Forest Service acknowledges that all new construction will have a degree of impact on the American Indian experience of viewscapes and isolationism. In the design and construction phases of the Middle Kyle Complex, consultation will be conducted with culturally affiliated American Indian nations to ensure that these impacts are mitigated where and when feasible.

Market Supported Alternative

With regard to VQOs, the combined effect of proposed facilities under the Market Supported Alternative would be similar to that described for the Proposed Action. Overall, when measured against GMP direction to maintain natural-appearing scenery, or at least predominantly natural scenery, the effect of the proposed facilities on the views from the byway would be negative because of the increased amount of apparent landscape alterations associated with the proposed recreation and administrative facilities.

The potential effects of the Market Supported Alternative to priority views are summarized below in Table 3.5-2.

Table 3.5-2. Market Supported Alternative - Direct and Indirect Effects on Existing Views

	Potential Change in Visual Quality Objective Value				
Feature	**No Effect**	**Negligible Effect**	**Minor**	**Moderate**	**Major**
PRIMARY TRAVELWAYS					
Byway Segment 1					
Proposed campgrounds, trail bridge over Kyle wash/Slot Canyon (not visible) and sewer treatment facility with lagoons or package treatment facility	No Effect				
Proposed trailhead parking areas off Harris Springs Road		Negligible Effect			
Byway Segment 2					
Proposed Village and Valley areas, trailhead in Telephone Canyon area and proposed wildlife rehabilitation facility Proposed earthen landscaped berm between campground and SR 157 (minor adverse in short term; negligible in long term). Relocated entrance to solid waste transfer facility		Negligible Effect			
Proposed campgrounds (traditional and commercial styles) and picnic areas including campstore/registration area at main entry Relocated Metro, proposed interagency law and fire enforcement buildings, Forest Service administrative and operations facilities Forest Service employee and volunteer housing			Adverse		
Burial of overhead utility lines and restoration areas				Beneficial	
Byway Segment 3					
Proposed improvements at Kyle CCC Camp Proposed upgrade at Kyle wash crossing at entrance to Fletcher View Campground		Negligible Effect			
Proposed improvements to Fletcher Canyon Trailhead Proposed reconstruction of Kyle Canyon Campground and Kyle Canyon Wash Trail (paved)			Adverse		
Restoration areas (removal of non-historic structures, interim visitor center and restrooms and parking area and existing Fletcher Canyon Trailhead parking area on SR 157)			Beneficial		

	Potential Change in Visual Quality Objective Value				
Feature	**No Effect**	**Negligible Effect**	**Minor**	**Moderate**	**Major**
Byway Segment 4					
Proposed Village area south of SR 157		Negligible Effect			
Proposed campground (commercial) and picnic areas Proposed Village area (north of SR 157), trailhead and parking areas, wildlife rehabilitation facilities Interagency and Forest Service administrative and operations facilities, including staff and volunteer housing				Adverse	
SECONDARY TRAVELWAYS					
Proposed closure of a portion of Telephone Canyon Road to motorized vehicles Restricting OHV use to designated motorized routes outside project boundary Proposed trail use designations (hiking, biking, equestrian) and improvements to existing trail network (including paved multiuse trails) Clean up of dump area and restoration of helipad site Concealing overhead utility lines in trail bridge over Kyle wash/Slot Canyon Burial of overhead utility drainage crossings along Rim Trail Burial of overhead utilities along Kyle Canyon Wash Trail			Beneficial		
Proposed trail bridge over Kyle wash/Slot Canyon			Adverse		
PRIMARY VISITOR USE AREAS					
Proposed Village		Negligible Effect			
Proposed Valley			Beneficial		

Summary of Effects on Inventoried Visual Quality Objective Zones

Effects would be the same as the Proposed Action with the following exceptions:

- The only additional facility that falls within the Partial Retention VQO is the wildlife rehabilitation center. When viewed from Byway Segment 2, the visual impacts of this facility would not exceed the thresholds set by the Partial Retention VQO. From SR 158, this facility should not be visible, as it would be screened by natural topography.
- Within the Retention corridor, differences from the Proposed Action include a general downsizing of recreation facilities, which would tend to reduce the extent of the associated landscape alterations and create a slight quantitative reduction in the acreage of alterations that would be inconsistent with VQO guidelines. The qualitative nature of those alterations would be much the same in both the Proposed Action and the Market Supported Alternative, with the exception of the configuration of the commercial campground in this alternative, which would create a more intensively modified but smaller area than the comparable campgrounds in the Proposed Action.

View of the former golf course looking southwest. The disturbed nature of the site is evident in this photograph (April 2008).

Still, the changes in landscape quality perceived by most SMNRA visitors would be much the same under both the Proposed Action and the Market Supported Alternative, and the general conclusions regarding VQO compliance under this alternative would be the same as under the Proposed Action.

Effects on Natural Landscape Character

Effects would be the same as those described under the Proposed Action, with the exception that the denser, more developed character of the commercial campground would create a more urban zone than the traditional Forest Service-style campground in the Proposed Action. The more urban character of the commercial campground would be most visible from the viewpoints along SR 158.

3.6 Compliance with the General Management Plan for the SMNRA

The Proposed Action and Market Supported Alternative are consistent with the Forest Land and Resource Management Plan, which includes the Land and Resource Management Plan for the Toiyabe National Forest (Forest Service 1986), and the General Management Plan (GMP) for the Spring Mountains National Recreation Area, An Amendment to the Land and Resource Management Plan, Toiyabe National Forest (Forest Service 1996) with the exception of GMP Standard 0.31 and GMP Guideline 11.71.

3.6.1 GMP Standard 0.31

GMP Standard 0.31 states "New roads, administrative facilities, and developed recreation sites other than low-impact facilities (trails, trailhead parking, signs, restrooms etc.) will be outside a 100-yard buffer zone around known Clokey's eggvetch (*Astragalus oophorus var. clokeyanus*) and rough angelica (*Angelica scabrida*) populations or potential habitat and outside biodiversity hotspots (defined as areas of particular diversity or sensitivity)." No populations or individual plants of Clokey's eggvetch or rough angelica were found in the project area during the resource surveys. In addition, the project area is not located within areas of potential habitat for Clokey's eggvetch, which occurs in upper Lee and Clark Canyons and the Wheeler Pass area. However, new construction is proposed to occur within the 100-yard buffer zone of potential habitat for rough angelica.

Rough angelica is unique to the east side of the Spring Mountains and is on the Regional Forester's (Forest Service Region 4) list of sensitive species for the Toiyabe National Forest. Potential impacts on this species were documented in the *Botany Biological Assessment/Biological Evaluation for the Middle Kyle Complex Project* (ICF Jones & Stokes 2009j).

Within the project area, potential habitat for this species exists in Kyle Canyon Campground and extends west to include the Fletcher Canyon Trailhead, Kyle Canyon Interim Visitor Center, Kyle CCC Camp, and Fletcher View Campground.

In 2002, rough angelica populations and individual plants over an estimated 50 acres were documented in upper Kyle Canyon. A historical observation of this species has been made within the project area near Kyle Canyon Campground (Entrix 2008).

3.6.2 GMP Guideline 11.71

GMP Guideline 11.71 states "Identify and manage the Harris Springs site as a designated group use site, available for blackpowder shooting and other uses." The location of the "Harris Springs site" as referred to in the GMP is located approximately 0.5 mile south of SR 157 west of Harris Springs Road.

The Harris Springs site is shown on Figure 2-1 as a disturbed area where informal parking and roaded access currently exists. A former landfill occupied this area previously and was closed in the early 1990s. Because of the site's disturbed condition, it was identified in the GMP as suitable for permitted dispersed group use activities.

3.6.3 Direct and Indirect Effects

No Action Alternative

The project area would continue to be used for developed and dispersed camping, hiking, mountain biking, equestrian, and OHV use. Proposed recreation and visitor facilities would not be constructed. This alternative would comply with GMP Standard 0.31 in that no construction would occur within the 100-yard buffer zone of potential habitat for rough angelica. This alternative would also comply with GMP Guideline 11.71 in that the Harris Springs site would continue to be available for permitted designated group use, including blackpowder shooting and other uses.

Proposed Action and Market Supported Alternative

GMP Standard 0.31

Implementing the Proposed Action would require a project-specific amendment to the GMP. Construction would occur within the 100-yard buffer zone of potential habitat for rough angelica. Implementation of the Proposed Action would result in approximately 4 acres of permanent and approximately 17 acres of temporary construction disturbance to potential habitat for rough angelica. The permanent impacts would result in the permanent removal of habitat due to construction, operation and maintenance of proposed facilities or improvements including upgrading of the water main for the Western Area, Fletcher View Campground, Kyle CCC Camp, Fletcher Canyon Trailhead, and Kyle Canyon Campground. The Kyle Canyon Interim Visitor Center and associated facilities (restrooms and parking area) would be relocated and the site would be restored, as would other disturbed areas in the Kyle CCC Camp. In all, approximately 1.4 acres would be restored and these areas would provide additional potential rough angelica habitat.

The temporary impacts associated with implementing this alternative include soil compaction and trampling of potential rough angelica habitat by equipment during construction of the Proposed Action facilities. These temporary impacts are expected to return to predisturbance condition within 3 to 5 years depending on the level and method of revegetation and restoration that is implemented.

Implementing the Market Supported Alternative would also require a project-specific amendment to the GMP. Potential effects on rough angelica habitat would be the same as described for the Proposed Action, with the exception that this alternative would disturb an additional approximate 0.5 acre of potential habitat on both a permanent and temporary basis. The increase in disturbed habitat would be due to relocation of the Fletcher Canyon Trailhead off SR 157, additional off-highway parking spaces proposed in this area and construction of the trail on the southern perimeter of the Kyle Canyon Campground. Approximately 1.3 acres of disturbed area within the Kyle CCC Camp would be restored and provide potential rough angelica habitat. Restored areas include the former locations of the Kyle Canyon Interim Visitor Center and Fletcher Canyon Trailhead.

No impacts on individuals of this species are anticipated as a result of implementing the Proposed Action or Market Supported Alternative. The project area is located within the elevation range of the species and within potential habitat; however, no individuals or populations of this species were observed in the project area.

GMP Guideline 11.71

Implementation of either action alternative would not comply with GMP Guideline 11.71 because of the proposed development of recreation facilities at the Harris Springs site. Under the Proposed Action, a mountain bike rental facility, trailhead and non-motorized trails are proposed in this location. Under the Market Supported Alternative, only the trailhead and non-motorized trails would be built.

Construction of these facilities would eliminate use of this area for permitted designated group uses, including blackpowder shooting. Discharge of firearms, including blackpowder shooting, would be prohibited within 150 yards of developed recreation and Forest Service facilities. However, designated group uses and blackpowder shooting would continue to be available at other suitable locations on the SMNRA. Implementation of either action alternative would require a project-specific amendment to the GMP.

3.7 Required Disclosures and Executive Orders

The National Environmental Policy Act (NEPA) at 40 CFR 1502.25(a) directs "to the fullest extent possible, agencies shall prepare draft environmental impact statements concurrently with and integrated with…other environmental review laws and executive orders."

3.7.1 Climate Change Considerations

The Forest Service has identified climate change as one of its top priorities and has issued guidance to include climate change considerations in project planning and NEPA documents. Climate change has the potential to affect the nation's forests and rangelands. The Forest Service has developed various adaptation and mitigation measures, both in terms of responding to climate change (adaptation) and reducing contributions to climate change (mitigation).

An evaluation of the potential impacts of the implementing the Middle Kyle Complex project on global climate change in terms of its contribution to state and national greenhouse gas (GHG) emissions was conducted and included in a technical memorandum prepared for the Forest Service.

The analysis determined that while implementation of the project would increase project area GHG emissions over the existing condition, the increase would only result in short-term emissions and would not be a continuous new source of GHGs. As such, implementing the Proposed Action or Market Supported Action would not impede the state of Nevada's ability to meet its 2020 GHG emission reduction goal.

The use of forest biomass was identified in the Proposed Action as a mitigation measure to offset GHG emissions because it reduces the need to consume fossil fuels (Forest Service 2008a). The Market Supported Alternative does not include the use of forest biomass.

While there is no existing mechanism for assigning a significance determination of project-related GHG emissions for Forest Service projects, it can be assumed that this project will have a negligible impact on future Forest Service climate change strategies.

Forests act as a "carbon" sink, as sequestered carbon is trapped in the biomass and soils of the forest. The Middle Kyle Complex project would have a negligible impact on carbon sequestration within the Humboldt-Toiyabe National Forest because the action alternatives would have little impact on tree harvesting or planting.

3.7.2 Short-term Uses and Long-term Productivity

NEPA requires consideration of "the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity" (40 CFR 1502.16). As declared by the Congress, this charge includes using all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which humans and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans (NEPA Section 101).

The short-term use of the environment versus preserving its long-term productivity relates to converting the natural productivity of the land to some developed use. The natural productivity of the land is considered a renewable use of the land; developed use generally has a relatively short economic lifespan and is regarded as a short-term use. Both of the action alternatives include converting existing undeveloped land to a developed use and thus converting long-term natural productivity to a relatively short-term developed use.

The Proposed Action would convert approximately 425 acres of currently undeveloped land to a developed use. This acreage includes the 128 acres of land previously used as a golf course, currently in early successional stages of natural revegetation, and improvements to existing campground, administrative, and visitor areas where the natural productivity of adjacent vegetation communities are adversely affected by ongoing use of the facilities. In addition, the Proposed Action would require the conversion of undeveloped areas to a developed use (construction and operation of proposed buildings, parking areas, roadways, and trails). The Market Supported Alternative would result in the conversion of approximately 331 acres from undeveloped land to a developed use and have a similar impact on natural productivity as the Proposed Action.

3.7.3 Unavoidable Adverse Effects

Implementation of either action alternative could potentially result in adverse environmental effects that cannot be effectively mitigated. The interdisciplinary procedure used to identify specific management actions in the alternatives was designed to eliminate or reduce the potential adverse effects. The development of alternatives included avoidance of potentially adverse environmental effects through project design, development of design criteria, and mitigation measures. However, some adverse effects on the environment that cannot be totally mitigated may occur. These effects are disclosed in applicable resource section or specialist reports. In addition, the application of Forest Plan standards and guidelines and site-specific implementation direction are intended to further limit the extent, severity, and duration of these effects. The intensity and duration of these effects depends on the alternative and the design criteria and mitigation measures applied to protect resources. In all cases, the effects would comply with established legal limits, regulation, policy, and best available science.

The adverse impacts on the Spring Mountains acastus checkerspot butterfly host larval and nectar plants, wildlife habitat, visual quality objectives, and the landscape important to the culturally affiliated Nuwuvi nations are unavoidable adverse effects resulting from the construction and operation of a proposed project. The unavoidable adverse effects would essentially be the same for both action alternatives.

3.7.4 Irreversible and Irretrievable Commitments of Resources

Irreversible and irretrievable commitments of resources that cannot be regained include the loss of Spring Mountains acastus checkerspot butterfly habitat within Kyle wash, including the mate selection area, due to construction of the Kyle Canyon Wash Trail for recreational use and utility right-of-ways. Implementation of both action alternatives would result in permanent impacts on approximately 30 acres of potential habitat including over 29 acres within the proposed Valley area, the site of the former golf course property. Approximately 0.6 acre of permanent impacts would occur within mate selection habitat in Kyle wash. Temporary impacts include approximately 2.0 acres of potential habitat, including approximately 0.7 acre within the mate selection area and 1.3 acres within Kyle wash outside of the mate selection area and in the Valley area. Of the approximately 53 acres of wash habitat within the project area, approximately 28 acres is suitable Spring Mountains acastus checkerspot butterfly habitat.

Implementation of the Middle Kyle Complex involves the commitment of a range of natural, physical, human, and fiscal resources. Land affected in the construction of the proposed facilities would be committed to development of administrative facilities, recreation facilities, and visitor services; however, in the future the facilities or the land could be converted to another use should a greater need arise. Initial project construction would irretrievably commit fossil fuels and construction materials to the project.

3.7.5 Cumulative Effects

The Council on Environmental Quality (CEQ) provides the following definition of a cumulative effect (40 CFR 1508.7).

> The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions.

CEQ guidance recommends that a cumulative impact analysis focus on effects that can be evaluated meaningfully. This recommendation, along with guidance from the U.S. Environmental Protection Agency (EPA) in the publication Consideration of Cumulative Impacts in EPA Review of NEPA Documents (EPA 1999), and guidance from CEQ in the publications Considering

Cumulative Effects under the NEPA (CEQ 1997), was used to complete the cumulative impacts analysis for the EIS, taking into consideration an updated list of past, present, and reasonably foreseeable projects.

A list of the past, current, and reasonably foreseeable federal, state, and other local activities that could contribute to cumulative effects is provided in Table 3.7-1.

Table 3.7-1. Past, Present, and Reasonably Foreseeable Activities in the SMNRA

Location	Acres
KYLE CANYON	
SMNRA Entrance Sign, SR 157	0.1
Old Harris Springs Dump	125.0
Kyle Dump Station	5.0
State of Nevada Highway Station	25.0
Interagency Kyle Heliport	15.0
Old Kyle Heliport including Kyle RAWS Station	15.0
U.S. Forest Service Fletcher View Campground	0.5
U.S. Forest Service Kyle Canyon Campground	20.0
U.S. Forest Service Kyle RV Site	0.5
U.S. Forest Service Kyle Guard Station	25.0
Power lines including roads	45.0
Kyle Fuel Break (Forest Service)	350.0
Private Homes (Permit)	40.0
Cathedral Rock Picnic Area Rehabilitation Project	35.0
Mary Jane Trailhead	04.0
Private Homes/Lands	265.0
DEER CREEK/ANGEL PEAK	
Deer Creek Picnic Area	3.0
Mahogany Grove	25.0
North Loop Trailhead	7.0
Hill Top Campground	30.0
Archery Range	100.0
Bonanza Trailhead	7.0
Scout Canyon Trailhead	5.0
Desert View Overlook	7.0
Spring Mountain Youth Camp	450.0
Angel Peak Communication Site	75.0
Private homes/lands	147.0
LEE CANYON	
Old Mill Picnic Area Including Lee and Nevada Department of Forestry Stations	50.0

Location	Acres
Las Vegas Ski and Snowboard Resort	80.0
Foxtail Area	20.0
Bristlecone Trail Head	5.0
Dolomite Campground	20.0
McWilliams Campground	30.0
Sawmill	8.0
Blue Tree	20.0
Old Road Disturbance, SR 156	30.0
Macks Canyon Road	40.0
Macks Canyon Fuel break	125.0
Private homes/lands	335.0
COLD CREEK	
New Fire Station	15.0
Old U.S. Fish and Wildlife Service Station	25.0
Private homes/lands	496.0
MOUNTAIN SPRINGS	
Numerous Trespasses on Forest Service Lands	50.0
Non-System Roads	10.0
Potosi Communication Site	30.0
Augie Spa Road	15.0
Private homes/lands	234.0
TORINO RANCH	
Disturbance throughout the Site	75.0 +/-
Lovell Summit Fuel Break	275.0
Private Homes/Lands	46.0
TROUT CANYON	
Road System	15.0
Non-System Road	10.0
Power Lines	7.0
Private Homes/Lands	145.0
NEW AND FUTURE PROJECTS	
Lee Meadows Restoration	39.0
Deer Creek Water Resource Protection Devices	Unknown
Kiosk Project	2.0 acres total throughout SMNRA
Cathedral Parking Area/Picnic Site	20.0
Lovell Trailhead and Trail	7.0

Air Quality

The cumulative effects analysis area includes the counties of Clark, Nye, and Lincoln, Nevada, and Class I visibility-protected areas in northwestern Arizona, southwestern Utah, and southeastern California. The project air quality impact assessment concluded that SMNRA activities, including the proposed Middle Kyle Complex, would not individually or cumulatively exceed NAAQS standards, nor would activities contribute significantly to the cumulative air quality concentrations at the Class I visibility-protected areas. Therefore, it was also concluded the project's impacts on cumulative regional air quality within the nonattainment area in Clark County would be less than significant.

Non-Native Invasive Species

The cumulative effects analysis area for NNIS plants is the SMNRA. Several projects are planned in the SMNRA. These projects would follow Forest Service policies that emphasize the prevention of weed establishment and would incorporate prevention and avoidance practices and mitigation measures to prevent the introduction, establishment, and spread of NNIS plants. The cumulative effects of the No Action Alternative on NNIS in the project area would not perceptibly interact with past, present, or foreseeable future actions in the SMNRA as many of the ongoing disturbances would continue.

One SMRNA-wide project, the Wildland Urban Interface Fuels Reduction project, is by far the largest and would involve different treatment methods to reduce fuels, including machine removal, hand removal, burn piles, and cable removal, on approximately 3,200 acres. The Wildland Urban Interface Fuels Reduction project includes an analysis of the effects on NNIS plants and incorporates prevention, avoidance, and design criteria to reduce the risk of introduction, establishment, and spread of NNIS plants. Implementation of the Middle Kyle Complex project in conjunction with those past, present, and reasonably foreseeable projects could contribute to NNIS cumulative effects within the landscape. These include incremental habitat loss, fragmentation and degradation, and urbanization, and increased opportunities for the introduction and spread of NNIS plants. However, with the incorporated design criteria and ongoing monitoring and treatment protocols, it is expected that none of these projects will result in an increase in NNIS in the SMNRA.

The cumulative effects are the same for both the Proposed Action and Market Supported Alternative.

Geology, Soils, and Hydrology

The cumulative impact analysis area is the Kyle wash watershed. The potential adverse water quality effects caused by accelerated erosion during construction of the action alternatives and by ongoing use of the recreational facilities could combine with adverse effects from other ground-disturbing or soil-compacting

activities elsewhere in the Kyle wash watershed. Such activities could include homesite development, road construction and maintenance, fuelbreak or fireline establishment, and other activities that entail vegetation removal, excavation, or soil compaction. Soil compaction within the analysis area can increase surface water run-off coefficients, erosion, and sedimentation while reducing soil productivity and water infiltration rates.

Social and Economic Resources

Cumulative effects are those effects that contribute cumulatively to social and economic consequences of the Middle Kyle Complex project with the additive changes of past, present, and reasonably foreseeable actions.

There are 11 other proposed recreational improvements that are outside the Middle Kyle Complex project area, but within the SMNRA. Along with the proposed project, these projects are expected to increase visitor recreational use and result in a beneficial additive effect to the social and economic conditions of the study area. No cumulatively adverse effects are anticipated from the No Action Alternative, the Proposed Action, or the Market Supported Alternative.

Recreation

The cumulative impacts analysis area for recreation is the SMNRA. The SMNRA is anticipated to have increased demand for recreation use due to an increase in visitors. The recreational opportunities provided in the SMNRA include both developed and undeveloped facilities along with user-created trails. The Proposed Action and Market Supported Alternative would provide more accessible trails and would likely increase the number and range of user groups to the project area.

Under the Market Supported Alternative, potential cumulative effects would be the same as the Proposed Action with the following qualification: since this alternative would have fewer facilities to maintain than the Proposed Action, it would accommodate fewer individuals.

Spring Mountains Acastus Checkerspot Butterfly Habitat

The cumulative effects area for Spring Mountains acastus checkerspot butterfly is the SMNRA and the area around Switchback Spring in Red Rock Canyon National Conservation Area (RRCNCA). The habitat contained within the SMNRA and the RRCNCA is the only known habitat for this species. The projects considered as part of the cumulative effects analysis are listed in Table 3.7-1. Past, present, and reasonably foreseeable actions that impact this species included dispersed recreational use, roadway maintenance along SR 158 (loss or reduction of populations through mowing), recreational trail development

and use within areas of known habitat, campground improvements, fire suppression, OHV use, spring diversion and modification, and continued development of private lands in Lee and Kyle Canyons. The acreage of habitat degradation—particularly loss of larval host plant habitat—as a result of past actions is presently unknown; however, colony sites are specific and adjacent to known developments within Kyle Canyon, and it is likely that some permanent habitat loss has resulted.

The Potosi Boy Scout Camp and its users pose another, yet smaller, threat from dispersed recreation and trampling (Weiss et al. 1997) for the colony that exists at this site. Mowing along the Deer Creek Highway could destroy nectar host plants and reduce populations of this species (RECON 2000). Between the lower Kyle Canyon Campground and the site of the Middle Kyle Canyon Complex, Boyd and Austin (1999) noted blading and OHV use within the wash. The SMNRA WUI fuels treatment project will overlap with the Middle Kyle Complex project area and includes approximately 300 feet on both sides of SR 157. This species could be affected by these activities, because in the long term it results in permanent cumulative loss of habitat. However, on the additive side, several land parcels have been added to the SMNRA habitat base since the MSHCP was signed, and some of them have incidental sightings of this species (Forest Service 2009d).

Cumulative impacts on the Spring Mountains acastus checkerspot butterfly include habitat impacts resulting from construction disturbance during flight periods and from trampling host and nectar plants during dispersed recreation and infrastructure operation and maintenance activities within the area encompassed by projects included in the cumulative impact analysis.

The construction impacts on the Spring Mountains acastus checkerspot butterfly larval host and nectar plants are the same under both action alternatives. The Proposed Action may attract more individual recreational users to the area than the Market Supported Alternative and, therefore, more operational use of the Kyle Canyon Wash Trail and off-trail hiking may occur under the Proposed Action. Implementation of the Proposed Action may result in greater operational impacts on the butterfly habitat. Cumulative impacts under the Market Supported Alternative would be similar to those described for the Proposed Action.

Potential cumulative effects on other biological resources were addressed in the wildlife and botany specialist reports.

Visual Resources

The cumulative impacts analysis area for visual resources is Kyle Canyon. Residential development in upper Kyle Canyon has converted the visual setting of some areas from forest woodlands to developed urban setting. Within the project area, the former golf course property, multifamily residential development, commercial buildings, a developed recreational campground, and administrative site have modified the visual resources to a developed urban setting. The Wildland Urban Interface Fuels Reduction project, which aims to

reduce wildfire risk through the creation of vegetation fuel breaks and reduced fuel loads will have some short-term impacts on visual resources throughout Kyle Canyon. The renovation or enhancement of existing picnic areas and campgrounds in upper Kyle Canyon for the purposes of resource protection, compliance with accessibility standards, and increased visitor health and safety will enhance the overall appearance of the recreation facilities within the analysis area.

In terms of compliance with VQOs in the GMP, the Proposed Action and Market Supported Alternative would create an appreciable increase in landscape alteration visible most notably from the Deer Creek highway. Overall, fewer acres would meet the GMP guideline of maintaining natural appearing (or even primarily natural) scenery with development of new recreation and administrative facilities. While the Village development would be more inviting and attractive than the existing abandoned parking area, it would not be any more natural in appearance.

Cultural Resources

Prehistoric and historic properties are non-renewable resources; consequently, any adverse effects are considered permanent. All effects are cumulative and diminish the overall resource of historic and prehistoric properties to one degree or another. When artifacts are damaged or improperly removed from their original context, they are permanently lost. Any action that contributes to site deterioration or damage is an irreversible action. Past activities (including the building of structures to support recreational use), mining activities, historic timber harvest, fire and fire suppression activities, road building, trails, and other construction and development have directly affected cultural resources within the SMRNA by reducing the quality and/or quantity of sites due to disturbance or obliteration. In addition to the direct effects from past actions, indirect effects may include increased site access and exposure to the elements. Soil compaction and artifact displacement can result from dispersed recreational use (hiking, biking, and equestrian use) and the use of motorized vehicles and camping in the areas of prehistoric sites.

The Forest Service, through coordination with the Nevada State Historic Preservation Office (SHPO) and culturally affiliated Nuwuvi tribes, will develop appropriate mitigation to minimize or avoid potential adverse impacts on cultural resources within the project area.

3.7.6 Clean Air Act

The Clean Air Act, as amended in 1990, is designed to reduce air pollution, protect health, and protect visibility. It requires each state and local air quality agency to develop a State Implementation Plan (SIP) to ensure that NAAQS are attained and maintained for expected pollutants. SMNRA is in the jurisdiction of the Clark County Department of Air Quality and Environmental Management (CCDAQEM).

An assessment of air quality, including emission calculations and regional air quality impacts in the Middle Kyle Complex project area, was presented in the *Air Quality Specialist Report, Middle Kyle Complex* (ICF Jones & Stokes 2009a).

No significant air quality impacts were forecasted as a result of construction or operation of the Middle Kyle Complex project. The projected increase in emissions of criteria pollutants was forecast to be well below the General Conformity applicability thresholds. In addition, SMNRA emissions would be very low compared to existing emissions within Clark County.

The project is required to adhere to Clark County Department of Air Quality and Environmental Management requirements and practices. Permits for construction activities and dust control would be obtained from the County. In addition, implementation of design criteria and best management practices measures (see Table 2-4, *Design Criteria Common to Action Alternatives*) would prevent significant air quality impacts.

3.7.7 Clean Water Act

Water quality is regulated by the Clean Water Act (CWA), which was promulgated in 1977. The CWA is the primary federal law protecting the nation's waters, including lakes, rivers, aquifers, and coastal areas. Pertinent sections include:

- Section 401 (state water quality certification);
- Section 402 (National Pollutant Discharge Elimination System [NPDES] permits); and
- Section 404 (permit for discharge of dredged or fill material in waters of the United States).

The EPA is the federal agency with regulatory authority for Sections 401 and 402 of the CWA. The EPA has delegated portions of this authority to the State of Nevada. Nevada Division of Environmental Protection (NDEP) is the governing agency for issues related to water quality, including Section 401 certification and Section 402 NPDES permits. Construction of the Middle Kyle Complex project under either action alternative would require obtaining an NPDES permit to comply with Section 402 of the CWA. A Stormwater Pollution Prevention Plan (SWPPP) would be prepared as part of the NPDES permit.

The U.S. Army Corps of Engineers has provided a Preliminary Jurisdictional Determination (RGL 08-02) for the project area. The preliminary determination is a non-binding written indication that there may be waters of the United States within the project area. For this reason, the Forest Service will obtain and comply with required section 401 and 404 permits.

3.7.8 National Forest Management Act of 1976

The National Forest Management Act of 1976 (NFMA) as amended and its implementing regulations at 36 CFR 219, include principles for management of the lands and resources of the NFS. The NFMA requires that each national forest develop a land and resource management plan and provide for diversity of plant and animal communities in order to meet overall multiple-use objectives. Analysis conducted for this EIS is in compliance with the 1986 Toiyabe National Forest Land and Resource Management Plan and the1996 the General Management Plan for the SMNRA, an amendment to the Toiyabe Forest Plan with the exception of GMP Standard 0.31 and Guideline 11.71. See Section 3.6, *Compliance with the General Management Plan for the SMNRA* for a discussion regarding compliance with the GMP for the SMNRA.

3.7.9 Energy and Natural or Depletable Resource Requirements and Conservation Potential of Various Alternatives and Mitigation Measures

Energy would be consumed during the construction and operation of the Middle Kyle Complex. Prior to construction energy would be used to manufacture and ship materials. During construction, energy would be used by the Forest Service and contractors traveling to the project area; energy would also be used for transportation and storage of materials and operation of construction machinery.

During operation energy would be consumed by vehicles traveling to the project area, by daily operation of Forest Service vehicles, and by daily operation of vehicles by federal, state, and local agencies. Energy would likewise be required to support the daily operation of the proposed facilities.

Energy consumed that relates to recreation would be based on number of visitors to the area. Recreation use in the area is expected to change based on implementation of any of the alternatives.

There would be no energy requirement for the No Action Alternative. Energy conservation measures would be the same for all action alternatives. The Forest Service and contractors would strive to keep vehicles and equipment in good working condition. The Forest Service would also try to make efficient use of vehicles and equipment and minimize energy consumption where possible.

The Market Supported Alternative would have less capacity and fewer facilities to operate and maintain than the Proposed Action. Operation and maintenance costs are anticipated to be less, as would proper operation and maintenance of all sites and facilities. Similarly, the smaller capacity and size of the proposed facilities under this alternative are anticipated to consume a smaller amount of energy or nonrenewable resources with a greater potential for conservation of natural resources than the Proposed Action.

The Forest Service evaluated several environmentally sustainable options for heating, cooling, and powering facilities in the Middle Kyle Complex in the *Utility Feasibility Studies for Middle Kyle Canyon Development, Spring Mountains National Recreation Area* (AJC Architects et al. 2007). The Proposed Action includes biomass heating/cooling plants for visitor and Forest Service buildings. This system relies on steam generated through the combustion of wood chips, a renewable resource that could be locally and regionally harvested as part of the Forest's ongoing fuels reduction program. This alternative would consume a smaller amount of energy or depletable resources than the Market Supported Alternative.

Implementation of design criterion FD 1 would ensure new and reconstructed facilities reflect the unique settings of the SMNRA and are visually attractive, functional, and sustainable. The Forest Service would follow the applicable requirements for compliance with U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) and guidelines in the *Spring Mountains National Recreation Area Built Environment Image Guide* (Shapins Associates 2007). Construction of operation of the proposed facilities under these guidelines would require less energy and/or depletable resources.

Implementation of the proposed best management practices, design criteria, and mitigation measures would minimize potential impacts on natural resources in the project area and increase the conservation potential.

3.7.10 Endangered Species Act of 1973

Under Section 7 of the federal Endangered Species Act (ESA) (16 U.S.C. 1531-1544) as amended, federal agencies are required to ensure that their actions do not jeopardize the continued existence of species listed as endangered or threatened, or result in destruction or adverse modification of designated critical habitats used by those species. Threatened and endangered species include all plant and animal species currently listed or proposed for listing as threatened endangered, or candidate by the USFWS.

Three species listed as endangered or threatened have potential to occur in the SMNRA. It was determined by analysis that the three listed species (southwestern willow flycatcher [endangered], Mojave Desert tortoise [threatened], and Lahontan cutthroat trout [threatened]) would not be affected by the Middle Kyle Complex project. While all three species occur in southern Nevada, no habitat exists within the project area.

3.7.11 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC 703–711) prohibits the take of any migratory bird or any part, nest, or egg of any such bird, where take is defined as an attempt to "pursue, hunt, shoot, capture, collect, or kill." This act applies to all persons and organizations in the United States, including federal

and state agencies. The MBTA is administered by USFWS, with regulation of listed migratory birds delegated to the agency staff handling Section 7 of the ESA, and regulation of unlisted migratory birds delegated to the USFWS Migratory Bird Division.

Effects on migratory birds were considered in three reports prepared for the Middle Kyle Complex project: the *Final Wildlife Management Indicator Species Report for the Middle Kyle Complex Project (*ICF Jones & Stokes 2009k), the *Wildlife Biological Specialist Report for the Middle Kyle Complex Project* (ICF Jones & Stokes 2009h) and the *Wildlife Biological Assessment/Biological Evaluation Middle Kyle Complex Project* (ICF Jones & Stokes 2009i). These reports include analysis of the direct, indirect, and cumulative effects of the Middle Kyle Complex project on migratory birds.

Implementation of design criteria (see Table 2-4, *Design Criteria Common to Action Alternatives*) would lessen the potential for impacts on migratory bird species.

Executive Order 13186 (Responsibilities of Federal Agencies to Protect Migratory Birds)

On January 10, 2001, President Clinton signed EO 13186, directing federal agencies to take certain actions to further implement the MBTA (16 USC 703–711). The federal agencies were directed to develop and implement a memorandum of understanding with the USFWS to promote conservation of migratory bird populations. Forest Service Agreement # 08-MU-1113-2400-264, *Memorandum of Understanding Between the U.S. Department of Agriculture Forest Service and the U.S. Fish and Wildlife Service to Promote the Conservation of Migratory Birds*, identifies specific activities where cooperation between Parties will contribute to the conservation of migratory birds and their habitats (Forest Service 2008b).

To comply with EO 13186 and the MBTA, three reports were prepared for the Middle Kyle Complex project, the *Final Wildlife Management Indicator Species Report for the SMNRA Middle Kyle Complex Project* (ICF Jones & Stokes 2009k), the *Wildlife Biological Specialist Report for the Middle Kyle Complex Project* (ICF Jones & Stokes 2009h), and the *Wildlife Biological Assessment/Biological Evaluation Middle Kyle Complex Project* (ICF Jones & Stokes 2009i). These reports include analysis of the direct, indirect, and cumulative effects of the Middle Kyle Complex project on migratory birds.

3.7.12 Section 106 of the National Historic Preservation Act

The NHPA of 1966, as amended, sets forth national policy and procedures regarding “historic properties,” including districts, sites, buildings, structures, and objects included in or eligible for the NRHP. Section 106 of NHPA requires

federal agencies to consider the effects of their undertakings on such properties, following regulations issued by the Advisory Council on Historic Preservation (ACHP) (36 CFR 800). The Forest Service, in consultation with the Nevada SHPO is responsible for the determination of eligibility for listing in the NRHP and for the finding of effect. The ACHP is given the opportunity to comment on the project and its effects on cultural resources and to participate in the development of a Memorandum of Agreement, if required.

Cultural resource surveys of the Middle Kyle Complex area were conducted to determine the nature and distribution of cultural resources (including but not limited to archaeological sites and historic structures) that could be directly or indirectly affected by project activities. These surveys were conducted during the periods of October and June 2006, May and July 2007, and September 2008. The *Middle Kyle Complex Cultural Resources Survey* (ICF Jones & Stokes 2009n) was prepared to document the survey results and provide NRHP-eligibility recommendations and management recommendations for Forest Service consideration. This report is not available for public review.

The project has the potential to adversely affect three historic sites and one prehistoric NRHP-eligible (recommended) sites. The Forest Service and the Nevada SHPO have developed a Programmatic Agreement that will guide Section 106 of the NHPA consultation between the Forest Service, Nevada SHPO, and culturally affiliated tribes throughout project design and construction. In addition, the agreement will guide the development of any cultural resource mitigation identified through the Section 106 consultation process.

3.7.13 Executive Order 12898 (Environmental Justice)

All projects involving a federal action (funding, permit, or land) must comply with Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by President Clinton on February 11, 1994. This EO directs federal agencies to take appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law.

The potential environmental justice effects were analyzed in the *Socioeconomic Technical Memorandum Middle Kyle Complex (*ICF Jones & Stokes 2009e) prepared for the Middle Kyle Complex project to comply with EO 12898. Analysis in the technical memorandum found that construction of the Middle Kyle Complex would not result in adverse environmental or human health effects that would fall disproportionately on low-income or minority populations.

The Proposed Action and Market Supported Alternative include fee-based campgrounds, picnic areas and programs, and prohibition of dispersed camping. However, improved trails, trailheads and many of the proposed recreational facilities at the Village and Valley areas would be available at no cost. In

addition, public outreach was conducted on behalf of the Forest Service to determine the types of activities and experiences that were desired by Middle Kyle Complex users. Several organized groups, including minority organizations, indicated an interest in improved and/or enlarged facilities (PwC 2008). In light of these facts, the Middle Kyle Complex is not expected to disproportionately affect the ability of low-income or minority populations to enjoyably recreate within the SMRNA.

No minority or low-income populations have been identified that would be subjected to disproportionately high and adverse effects by the Middle Kyle Complex as determined above.

3.7.14 Executive Order 13112 (Invasive Species)

On February 3, 1999, President Clinton signed EO 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." The EO instructed federal agencies to identify their own actions affecting the status of invasive species and to not authorize, fund, or carry out actions likely to promote or introduce such species in the United States or elsewhere.

The risks for invasive weed introduction during and following construction of the Middle Kyle Complex project were analyzed in the *Non-Native Invasive Species Plants Specialist Report and Risk Assessment for the Spring Mountains National Recreation Area* (ICF Jones & Stokes 2009b).

The Middle Kyle Complex project design includes preventative measures against the spread of NNIS of plants in order to meet Forest Standards and Guides, as well as EO 13112 and Forest Service Manual (FSM) 2081.03. Further, after construction, the project area will be monitored for a period of time consistent with Forest Service policy. Control of new infestations would occur in accordance with the Humboldt-Toiyabe National Forest Decision Notice for the Noxious Weed Control Program (2001).

The measures to control and prevent the importation and movement of non-native invasive species across the SMNRA are included in the report and risk assessment including actions described in Forest Service Manual 2080.

3.7.15 Executive Order 13007 (Native American Sacred Sites)

EO 13007 was signed on May 24, 1996, by President Clinton to address the accommodation of sacred sites. The EO directs federal agencies to the extent practicable, permitted by law, and not clearly inconsistent with agency functions,

to accommodate access to and ceremonial use of American Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of sacred sites.

Culturally affiliated tribes[1] that have a connection to the Spring Mountains were informed about the Middle Kyle Complex project during the pre-NEPA public involvement process conducted for the *Middle Kyle Canyon Framework Plan* (Shapins Associates 2005) and through ongoing public involvement during preparation of the EIS, as outlined in Section 1.6.5, *American Indian Collaboration*, Section 3.4, *Cultural Resources,* and Section 3.8, *Nuwuvi and the Spring Mountains Landscape* of the EIS.

Components of the Middle Kyle Complex project provide for continued tribal access to and use of the area.

3.7.16 Executive Order 11988 (Floodplain Management)

EO 11988, signed on May 24, 1977, and amended on July 20, 1979, implements NEPA, the National Flood Insurance Act of 1968, and the Flood Disaster Protection Act of 1973. The EO directs federal agencies to take action to reduce the risk of flood loss, minimize the impact of floods on human safety, health, and welfare, and restore and preserve the natural and beneficial values served by floodplains. Agencies' actions must reflect consideration of alternatives to avoid impacts in floodplains and modify the proposed project to minimize such impacts where impacts are unavoidable.

There are no Federal Emergency Management Agency delineated floodplains within the Middle Kyle Complex project area and there would be no impacts on floodplains. However, a hydrologic analysis was conducted to quantify potential peak flows that could occur within the Kyle Canyon watershed. This included determining the 50- and 100-year floodplain areas within portions of the project area. This analysis was included in the *Middle Kyle Development – Geotechnical, Materials, and Related Studies* (Case, Lowe, & Hart 2007). Design guidance for culverts, parking areas, and storm drain systems was provided in the report. Specifically, facility locations and measures to maintain the integrity of the floodplains were incorporated in the design of the Middle Kyle Complex project.

[1] The culturally affiliated tribes include the following tribal governments: the Las Vegas Paiute Tribe, the Pahrump Paiute Tribe, the Moapa Band of Paiute Indians, the Paiute Indian Tribe, and the Colorado River Indian Tribes (Chemehuevi only). Culturally affiliated refers to tribal governments that consider the Spring Mountains landscape to be their creation place.

3.7.17 Executive Order 11990 (Protection of Wetlands)

EO 11990, signed on May 24, 1977, and amended by EO 12608 on September 9, 1987, regulates the activities of federal agencies with regard to wetlands. Under this EO each federal agency must provide leadership and take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands. Each agency, to the extent permitted by law, must avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds there is no practical alternative to such construction or the proposed action includes all practical measures to minimize harm to wetlands that may result from such use. In making this finding the head of the agency may take into account economic, environmental, and other pertinent factors (Section 2[a]). Each agency must also provide opportunity for early public review of any plans or proposals for new construction in wetlands (Section 2[b]).

There are no wetlands within the project area under the jurisdiction of the U.S. Army Corps of Engineers. There are no non-jurisdictional wetlands that would be adversely impacted from implementation of either action alternative.

3.7.18 Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments)

EO 13175 was signed by President Clinton on November 6, 2000. This EO directs federal agencies to establish regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, to strengthen government-to-government relationships with Indian tribes, and to reduce the imposition of unfunded mandates on Indian tribes.

Section 1.6.5, *American Indian Collaboration,* in Chapter 1, Section 3.4, *Cultural Resources*, and Section 3.8, *Nuwuvi and the Spring Mountains Landscape* in Chapter 3, provide information on the consultation and coordination efforts conducted for the Middle Kyle Complex project in compliance with this EO.

3.8 Nuwuvi and the Spring Mountains Landscape

Section 3.4, *Cultural Resources*, introduced the significance of the Spring Mountains landscape as the sacred place of creation and a true cultural landmark for the Nuwuvi Nations. The Nuwuvi Working Group prepared the following essay to describe the Nuwuvi relationship to the Spring Mountains landscape from their perspective and to provide readers and the decision maker with a better understanding of the Nuwuvi way of knowing.

The following information is an excerpt from Appendix A3, *Nuwuvi Participatory Consultation*, and is quoted verbatim from that document.

Nuwuvi and the Spring Mountains Landscape

Introduction

The following essay presents information collected through ethical participatory processes by Jeremy Spoon, Ph.D. and the Nuwuvi Working Group between October 2008 and February 2009. The purpose is to describe the Nuwuvi relationship to the Spring Mountains landscape from their perspective. The hope is to provide readers a better understanding of the Nuwuvi way of knowing that informs the decision-making process. Working Group members contacted a total of 21 Nuwuvi informants (5 males and 16 females) between the ages of 48 and 82. Interviews were semi-structured (Bernard 2002), following six thematic topics including the Spring Mountains landscape. The text is written in the first-person plural in order to express that Nuwuvi co-conducted the research and writing of the document, rather than a non-American Indian. This literary device also reinforces an image of a living culture (Nuwuvi Working Group and Spoon 2009a).

Research from various anthropologists provided background to the ethnographer and is incorporated where applicable. These contributions include publications and reports by Stoffle et al. (2004) and Stoffle et al. (2009) about the Spring Mountains, classic ethnography by Sapir (1992), Steward (2002 [1938]), Kelly (1939), Fowler and Fowler (1971), and Kelly and Fowler (1986), as well as more recent efforts, including the Inter-Tribal Council of Nevada (1976), Stoffle and Zedeno (2001), Stoffle et al. (1999), Stoffle et al. (2001), and Knack (2001).

Nuwuvi Past, Present, and Future

We are a Numic speaking people who call the southern Great Basin home. Our oral history explains that we were created at Nuvagantu or Nuvankai (the Spring Mountains landscape) at the beginning of time. We call ourselves Nuwuvi or Nungwu, meaning ‘the people.’ In English we are known as the Southern Paiute and Chemehuevi. These names came from other non-native peoples; however we have adopted them as our English identity. Our territory spans four states (Nevada, Utah, Arizona, and California) and our current population has

diminished to approximately 3,000 people. We presently live on various reservations and in rural communities and nearby cities.

Starting in mid 19th century, we were relocated by the federal government to reservation lands. Some of us were allotted territories within our traditional areas, while others were denied recognition by the government, which in the case of the Pahrump Paiute, continues to this day. Some of our people also resisted going to reservations, retreating to different parts of our traditional territory. Most of these reservations were thought to be unproductive lands that other settlers did not want to inhabit at that time.

The Moapa Paiute of southern Nevada were relocated to lands east of the Sheep Mountains near the Virgin River. This area was originally intended for all southern Nevada Paiutes. The Las Vegas Paiute were first given a small area of land near downtown Las Vegas, which was gifted to them by the Euro-American settler Helen J. Stewart. These lands were later expanded to an area between the Spring and Sheep Mountains. The five bands of Southern Paiute in Utah were all allotted land during this era. After some time, the federal government terminated all but one of them. These nations were later reinstated under the umbrella of the Paiute Indian Tribes of Utah. The Kaibab Paiute of Arizona share their lands with Pipe Springs National Monument and a nearby Mormon community. For the Chemehuevi Tribe, many individuals were relocated to the Colorado River Indian Tribes reservation (which houses Chemehuevi, Hopi, Navajo and Mojave peoples) when some of their land was covered by water with the construction of a dam in Arizona and California. Some returned later with the reestablishment of the Chemehuevi Tribe reservation, while others stayed where they were relocated or out-migrated to other areas.

The most far-reaching change that the contact period caused is that it disconnected some Nuwuvi from our land. It was a time of great hardship, where we saw many of our peoples die in unfortunate circumstances. The fact that we persist today shows the resilience of our culture to these outside forces. Some say that we are still in the contact period. Examples of the most significant events were Spanish exploration in the late 18th century, the enslavement of our people by the Spanish and others, the Mormon migration, the official opening of the Santa Fe Trails, horse trading, the gold rush, Mormon expansion, and old diseases in the New World. Enslavement and disease in particular drastically reduced our population and disrupted many social institutions. Some say as much as 80% or more of our population perished during this era. European settlers also took away ceremonial locations and made ceremonial acts illegal after the Ghost Dance ceremony of 1890 (Stoffle et al. 2004; Kelly and Flower 1986).

During this time when our population was rapidly declining, settlers encroached upon our lands. As more and more people settled, our lands were taken away and we were forced out. In some areas, we were forbidden to access resources, such as Pinyon-Juniper forests and springs, and we were generally not allowed to practice our spiritual traditions. Our farming tradition also was not respected, as the settlers did not understand our method compared to theirs. No treaties were made for the lands lost in the Spring Mountains landscape area, resulting in the loss of large tracts of land through settler land claims. Without our lands and with

restrictions on our spiritual traditions, our culture had to adapt to survive the outside occupation.

Our Livelihoods

Our system of survival is complex and continues to adapt and change depending on the circumstances affecting us. It provides for us what we need to survive in this landscape. Before contact with western peoples and contrary to what is written in most history books, we were more than merely hunters and gatherers wandering throughout the desert. Rather, our way of life was sophisticated—receiving the songs, stories, foods, and medicines that we needed to survive by the Creator. This included hunting numerous animals such as Mule Deer, Mountain Sheep, Jackrabbit, Desert Tortoise, and Cotton Tail, as well as gathering resources such as teuv (pine nuts) and op (mesquite beans). We also farmed various crops, such as squash, corn and beans while harvesting hundreds of medicinal plants for healing. There are areas that we returned to each year for resources and managed them with values of respect so that they continued to provide what we needed. Many of these traditions persist today and are mixed with other strategies to survive. Much of our value system that reinforces respect and maintains balance remains consistent even when our subsistence practices adapt and change.

During the reservation era we adapted to our changing circumstances and began other ways of life to survive. These included ranching, farming, mining, serving in the military, and more. Many of our peoples also out-migrated to cities in search of employment, especially in the case of non-federally recognized tribes. Our peoples helped in the development of the areas around us, providing labor and crucial knowledge of the land. In many cases, we taught the settlers how to live in this environment based on our extensive knowledge. It is in this era that we received our western names.

Today, each federally recognized tribe has a tribally owned business enterprises that they share to benefit tribal citizens. These include casinos, golf courses, gas stations, various stores, museums, cultural centers, and more. All of these businesses support the infrastructure of the tribes and provide resources for social, cultural, and environmental programs.

Persistence and Change

Contact with westerners caused far-reaching change among our peoples. Many political and economic forces influenced our culture and ways of life. Because of these factors, there is much generational change that has occurred. Similar to many indigenous cultures, American Indian people are faced with many challenges today. The younger generations have many distractions and often know less about our connections with our traditional lands and many do not speak the Nuwuvi language. The older generations are very concerned about these changes and the affects on the culture. They remain very interested in programs that reinforce the culture and language.

As a point of resistance to the contact period, some Nuwuvi have not only retained and transmitted much about the culture, but also initiated projects to safeguard these traditions. The participation of the seven nations in this project at

the Spring Mountains is an example of our unity and how we want to preserve our culture. It also demonstrates the importance of this area and our desire to collaborate with the federal government.

Nuwuvi and Nuvagantu (The Spring Mountains Landscape)

Mountains are sacred places to us. They provide everything that we need to survive as a people and a culture. Mountains are our spiritual places, where we harvest resources and conduct ceremonies that are central to our lives. Every mountain in the Nuwuvi territory has a name and was the place of significant events that helped to shape our history and relation to our land.

Nuvagantu (literally 'where snow sits' or the Spring Mountains landscape) is our holy land, and considered a true cultural landmark. It is important to us because it is the site of our creation, which defines who we are as a people. Nuvagantu is also a crucial reserve of resources that we use and a place to visit with family. Our connection to this landscape reinforces our ties to the Creator, the land, and our people (Stoffle et al. 2004; Stoffle et al. 2009).

Since the beginning of time, the Creator made Nuwuvi at Nuvagantu and here we became attached to this place and the place to us. The land is alive, which means that there is power in all things such as rocks, water, air, plants, animals, and humans. All of these beings are interconnected; they can talk with each other and work together to balance the world. The land has eyes and ears. It can talk and knows our thoughts. This makes it in balance and provides guidance. When treated badly, the mountains and everything within them suffers. Misuse of these areas upsets the balance and can cause great harm as well as diminish their power.

We come here for spiritual power and resources, but do not stay, as the mountain must rest. You must have a good heart to visit here and ask permission to take or use anything, which can never be more than you need. This land has been a protected area long before it was designated a National Recreation Area. Today, the U.S. Forest Service manages the land. We appreciate their efforts to protect the landscape and work collaboratively to co-manage the area with them to make sure that it remains in balance both physically and spiritually.

Nuvagantu provides everything we need to survive as a people. It is our school, place of worship, pharmacy, and grocery store, along with many other things. The Creator made it this way for us. For this reason, we treat the land with the utmost of respect and make sure that our actions do not harm it in any way. We travel here when we need to, returning throughout each year at the appropriate times. It is part of a complex ecological system that the Creator made for us to manage. We rely on thousands of years of experience when we interact with the landscape to ensure that it is kept as it was given to us at creation.

Our Values of Respect and Balance

We consider the land and everything within it to be alive and deserving respect. This value is the foundation for how we treat each other and the land. In Nuvagantu, this means we do not harvest more than we need and we must always feed the Mountain and give an offering before taking anything away. We also leave things behind for the other living beings in this place, as we know that they need the land's resources and we are connected to them through creation. In any interaction with the land, we must have the appropriate state of mind, rooted in respect. When we take something away from this place, we make sure to share it with people who were not able to make the journey. This is the same way we treat the people and the land in our territory; however this landscape is extra special because of what happened here and the power that it holds.

Sometimes the land is unable to produce because it is not in balance. This can be the result of an over harvest of resources, the influx of non-native invasive plants, littering, pollution, or a host of other factors. To restore balance, the land needs to hear our songs and voices, and of course, be treated with respect. Native plant revegetation programs and controlled burning in a culturally acceptable manner also help to re-establish balance.

Songs and Landscape (Songscapes)

Our songs are sacred to us. They are vocal snapshots that talk about places and the things that happened there. These songs include the words of the animals that cannot talk anymore and are gifts from the wind, water, and land. The Creator and other deities filled the area with these songs. Some songs have dances that express our connection to the land and other living beings. They are in the Southern Paiute language and are transmitted orally from generation to generation. Specific individuals know certain songs, while more people know others. There are songs that we sing to the land that make it in balance. When they are not sung, we suffer and the land suffers. Some of our songs describe locations in the Spring Mountains and the other living beings that reside here.

The Salt and Silver Songs are our most sacred songs. They are sung at funerals to appease the spirits and to return the soul back to the Creator. Only certain individuals know these songs that are passed down from generation to generation. As the song is sung, the soul takes a physical journey through Nuvagantu, crossing Nuwuvi territory. The order of the songs is very important, as they lead the soul on its journey. As life began at Nuvagantu, the soul must travel through here to balance the universe and ensure a safe journey to the afterlife. We believe that the origin of the songs is near Nuvagantu. These songs reinforce the deep connection we have with this place and how it is part of us.

Ecological and Management Knowledge

Our culture has an intimate knowledge of the flora, fauna, and other natural features in our lands. These resources were provided for us by the Creator to help us survive. The harvesting of wild plants and the hunting of animals are some of the traditions that have sustained us since the beginning of time. In all of these activities, we treat living things with respect, never harvesting or hunting too

much. When we do take the life an animal, we ask for its permission while explaining our intentions and giving thanks for helping us. We never waste anything and use every part and share our taking as a gift we can and share with our families and friends. As children, we are taught the rules about who can hunt, when, and at what age. The landscape provides us with food and resources that make us whole and help us in our daily lives.

In Nuvagantu, we harvest many plant species for food including Pinyon nuts, Indian Spinach, Mesquite beans, Currant, Water Cress, various cactus fruit, berries, Yucca, and Cattails. There are also various plants that provide us with tools for survival, such as Sumac and Willow for basket making and Bitterbrush, Sage Brush, and Banana Yucca for pine nut roasting, to mention a few. Our complex way of life also includes intimate knowledge about animals, which we establish relationships with before we hunt. We hunt Mule Deer, Mountain Sheep, rabbit, quail, doves, desert tortoise, and more. In all hunts, we make sure not to take away too much and to treat the animals we are hunting with respect by talking to them and thanking them for giving up their lives to help us.

The teuv (pine nut) harvest is one of our most important traditions. It renews our ties to the land, providing us with a crucial food source and restores harmony within the mountain. The harvest also is an opportunity to rekindle our bonds with family members and individuals from the various Southern Paiute/Chemehuevi nations. There are various places in the Nuvagantu landscape that we prefer to harvest pine nuts in. These harvests are an opportunity for us to transmit our culture to the younger generations. It is also a time when we renew our ties with friends and family that live in other parts of our land. We offer morning prayers, sing songs and play games together. It is a very happy time.

We know that poor environmental management moves the world out of balance, causing the land and our people to be unhealthy. It is vitally important for our people to establish the appropriate relations with these living elements in order to survive, which includes talking to them in the Paiute language with a good heart and the appropriate state of mind. You must therefore explain your actions to the element with which you establish a relationship. Tools made from flora and fauna must be ceremonially retired to the landscape when they are no longer in use and sometimes suitable replacements are made as offerings to the landscape. We have relationships with these living things both in the past and in the present.

Our Welcome Statement

The following is a Welcome Statement intended for the public written in collaboration with Jeremy Spoon, Ph.D. and the U.S. Forest Service about our relationship with the Spring Mountains landscape. It concisely shares the Nuwuvi relation with our ancestral holyland:

> Welcome to our sacred land, Nuvagantu. It is a place that is alive and has power. The land has feelings to greet you, eyes to see you, and ears to hear you. It talks from every place in your sight. All of the plants, animals, rocks, water, snow, and air in this landscape are living and need to be in balance to remain healthy. To sustain this balance, we treat all beings with the utmost respect, as we have since the beginning of time. We are inseparable from these mountains, which are

> powerful, yet delicate. Our language and songs resonate through the springs, trees, rocks, and animals. We harvest resources here and renew our cultural and familial ties.
>
> Nuwuvi (Southern Paiute/Chemehuevi) continue to care for this land as we have for thousands of years, long before it became a National Recreation Area. We along with the U.S. Forest Service actively strive to keep the land in balance in culturally appropriate ways. Although you may not see us, you will surely hear our voices and feel our presence. Take a moment to get acquainted with this special place and allow it to know you. Use your senses and open your heart. This is a landscape where your spirit can be replenished and you can learn valuable lessons. Please walk softly on these grounds as we do and it will continue to thrive for generations.

Conclusion

This essay describes our ancestral connection to the Spring Mountains landscape, and in a broader sense, our relationship to the Nuwuvi traditional homeland. It helps to frame why we think the way we do about this project and others associated with public lands in the four state territory. Our sincere hope is that our way of knowing this landscape is respected at the same level as others. The information we shared was communicated to help educate others about our history and traditions. We hope that our efforts are considered in the developments for the Middle Kyle Complex, as well as other parts of the SMNRA. This landscape is an integral part of what makes us who we are and we care deeply about the management of it.

Chapter 4
Consultation and Coordination

4.1 Introduction

This environmental impact statement (EIS) has been distributed to individuals who specifically requested a copy of the document and those who submitted comments or other expressions of interest on the Draft EIS (DEIS). The document was simultaneously posted on the Humboldt-Toiyabe National Forest Web site. In addition, copies have been sent to federal agencies, federally recognized tribes, and state and local governments as required by Forest Service regulation and policy. The mailing list is available in the project record at the Spring Mountains National Recreation Area (SMNRA) office in Las Vegas, Nevada.

4.2 Preparers and Contributors

The following persons reviewed and contributed to the preparation of this EIS.

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4.3 Consultation and Coordination

Public scoping activities undertaken by the Forest Service in conjunction with improvements proposed for the Middle Kyle Complex are addressed in Chapter 1. Individuals, agencies, and groups who submitted comments on the DEIS during the public review period are listed in Section 4.3.3. In addition, the Forest Service contacted individuals, organizations, and agencies intimately familiar with local resources or coordination requirements during development of the EIS. A comprehensive listing of these contacts is in the project record and includes the following.

4.3.1 Federal, State, and Local Agencies

- Advisory Council on Historic Preservation
- U.S. Army Corps of Engineers
- U.S. Bureau of Land Management
- U.S. Fish and Wildlife Service
- U.S. Environmental Protection Agency
- National Park Service, Air Resources Division
- Nellis Air Force Base
- Nevada Department of Transportation
- Nevada Department of Wildlife
- Nevada State Historic Preservation Office
- Clark County Department of Air Quality and Environmental Management

4.3.2 Tribes

- Chemehuevi Indian Tribe
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- Las Vegas Paiute Tribe
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- Shivwits Band of Paiute Indians

4.3.3 Comments Received on the Middle Kyle Complex Draft Environmental Impact Statement

During the comment and review period on the DEIS, comments were received from individuals, agencies (federal, state, and local), and one group. Comment letters and the responses to comments on the DEIS are found in Appendix A1 and A2, respectively, of this EIS including the following.

- Joe Zogbi
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Comments Received from the Nuwuvi Working Group

The Nuwuvi Working Group comments submitted during the public review period on the DEIS were provided in the *Nuwuvi Participatory Consultation,* which is included as Appendix A3 to this EIS. The Forest Service responses to comments are presented in Appendix A4.

Chapter 5
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Appendix A

Response to Public Comment

Appendix A

Response to Public Comment

Introduction

This appendix contains the Forest Service responses to comments received on the *Middle Kyle Complex Draft Environmental Impact Statement* (DEIS). The 45-day public review period for the draft document began on October 2, 2009, and ended on November 16, 2009. As required by the National Environmental Policy Act (NEPA), the U.S. Department of Agriculture Forest Service (Forest Service) is required to respond to environmental issues raised during the review and consultation process.

During the public review period, comments were received on the DEIS from federal, state, regional, and local agencies; special interest groups, and individual members of the public. One comment letter was received after the review period had closed; however, the individual had contacted the Forest Service during the review period and the comment letter was submitted at a later date. This appendix contains copies of all the written, email, and verbal comments received on the DEIS.

Twenty individual comment letters were received during the DEIS public review period. Some comments only express an opinion in favor of or in opposition to the project or elements of the alternatives, and do not provide comment on the analysis presented in the DEIS. Although these comments are acknowledged and were assigned a comment number, they require no change in the EIS text.

The Forest Service Interdisciplinary Team (IDT) reviewed and responded to the comments. Revisions that were incorporated in the EIS are noted in the response and summarized in Appendix D, *Summary of Revisions since the Draft Environmental Impact Statement*, of this EIS.

Appendix A is organized into the following sections.

- Introduction to Response to Public Comment
- Appendix A1, Comment Letters
- Appendix A2, Comments and Responses
- Appendix A3, Nuwuvi Participatory Consultation
- Appendix A4, Nuwuvi Comments and Responses

This introductory section explains the purpose of Appendix A, describes the organization of the comments and responses in this document, and provides a table listing all the comment letters received and comment letter number.

Appendix A1. Appendix A1 contains copies of the comment letters organized by the assigned letter number. Each comment letter (*letter* in this case means any medium in which comments were submitted, e.g. email, letter, or verbal comment) contained one or more comments and was assigned a letter number. Each comment within each letter has been numbered. The number assigned to each letter is indicated in the top right margin and preceded by "MKC." The individual comments in the letters are numbered consecutively in the right margin adjacent to the comment. Highlighting was used to "mark" and distinguish between different comments.

Appendix A2. Appendix A2 contains the comments and specific responses to the comment letters contained in Appendix A1. Comments and responses are organized by letter number.

Appendix A3. Appendix A3 contains a copy of the Nuwuvi Participatory Consultation. Each comment within the letter has been numbered and is indicated in the right margin preceded by "MKC." The comments are numbered consecutively in the right margin adjacent to the comment with highlighting to distinguish between each comment.

Appendix A4. Appendix A4 contains the comments and specific responses to the comment letter in Appendix A3. Comments and responses are organized by comment number.

Table A-1 lists each letter received on the DEIS, the comment letter assigned to each letter and the name of the commenter, including affiliation.

Table A-1. List of Comment Letters

Letter Number	Name and Affiliation
MKC001	Joe Zogbi, General Public
MKC002	Kathy Ujifusa, General Public
MKC003	Joe Zogbi, General Public
MKC004	Ed Dodrill, Southern Nevada Regional Trails Partnership
MKC005	Jim Mesalic, General Public
MKC006	Lewis Wallenmeyer, Clark County Department of Air Quality and Environmental Management
MKC007	D. Bradford Hardenbrook, State of Nevada, Department of Wildlife
MKC008	Lee Bice, Clark County Desert Conservation Program
MKC009	Judith Pixley, General Public
MKC010	Connie Diso, P.E., City of Las Vegas Public Works

Letter Number	Name and Affiliation
MKC011	Patricia Sanderson Port, U.S. Dept. of the Interior, Office of Environmental Policy and Compliance
MKC012	Kathy Ujifusa, General Public
MKC013	Rodney Ward, General Public
MKC014	Ellis Greene, General Public
MKC015	Ellis Greene, General Public
MKC016	Robert Martinez, P.E., Nevada Division of Water Resources
MKC017	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX
MKC018	Pete Anderson, Nevada Division of Forestry
MKC019	Nuwuvi Working Group
MKC020	John Hiatt, General Public

Appendix A1

Comment Letters

RID	OT	S	RT	DT	IA	F	RI	CE

MKC001

MKC DEIS Oral Comments, recorded by Hal Peterson

September 24 through October 19, 2009

9/24/09. Phone call from Joe Zogbi--adjacent landowner (91 Daines Road—condo owner in condominiums next to Mt Charleston Hotel, also has house in Las Vegas). Questioned if OHV use would be allowed in the valley bottom area (concern was related to noise near his condo property). Asked where proposed helipads were located (concern was related to noise from landing/take-off, flight frequency and flight path relative to his property location). MKC001-1 MKC001-2

MKC002

10/6/09-Kathy Ujifusa, personal meeting. Las Vegas resident and equestrian user. Concern related to equestrian access to Fletcher Canyon trail network—she supports the trail connection from north telephone canyon area to Fletcher trails via SR 158 highway crossing (Proposed Action). Desires parking access for large horse trailers. Supports equestrian campground in Proposed Action. Does not support the idea of dispersed camping closures in Blue Tree area (at existing group use area). She intends to submit written comments. MKC002-1 MKC002-2

MKC003

10/19/09. Phone call from Joe Zogbi--adjacent landowner (91 Daines Road—condo owner in condominiums next to Mt Charleston Hotel, also has house in Las Vegas). Expressed concern about "echo effect" from valley area adjacent to his condo property. States that sounds, even conversations, from the valley area carry up to the condominiums and disturb the peace and quiet. Specifically he was concerned about plans for the picnic space in the valley and the group picnic areas in the village as the larger groups may create more noise. He suggested if a snow play area was developed in the valley that it be "aimed to the south" to minimize the valley echo effect. He also expressed concern about traffic congestion on SR 157 from RV and other vehicles entering the picnic/camping areas backing up traffic on the highway during busy use periods. He felt that large RV's might have difficulty negotiating the roundabouts and suggested that we install traffic signals at the main intersections. MKC003-1 MKC003-2 MKC003-3

RID	OT	S	RT	DT	IA	F	RI	CE

MKC004

Comments on the Draft Environmental Impact Statement Middle Kyle Complex, Spring Mountains National Recreation Area By Ed Dodrill, 7795 N. Torrey Pines Drive, Las Vegas NV 89131

MKC004-1

It seems evident that going into this project the Forest Service would know that building facilities of any kind would disturb the land. Yet, throughout the document it is pointed out that the Forest Service, at least those who manage this portion, do not want to disturb the land. If so, why was this project initiated? We were told at the public scoping meetings that the USFS wanted to create a place to draw in visitors to Mount Charleston and provide a satisfactory experience that would keep them from continuing to the top of the mountain where vehicular and pedestrian traffic has become overwhelming.

MKC004-2

At several points in the document it is noted that State Highways 157 and 158 and not under the jurisdiction of the Forest Service but under the jurisdiction of the Nevada Department of Transportation. I find it irresponsible on the part of the USFS that the Nevada Department of Transportation was not asked to join this project and provide guidance and expertise because the highway is the only link to this area unless someone plans to hike, bicycle or ride a horse up there from Las Vegas. Because NDOT was not part of the process they have no idea of the problems associated with Mount Charleston visitor traffic and the negative impact it is creating. NDOT also has not been asked to offer suggestions, including expanding the highway or creating an exit route from the Mount Charleston area working with the Forest Service to solve the problems.

MKC004-3

MKC004-4

Throughout the statement projects are eliminated because of costs. Since nobody on Earth expects this project to be completed within the next decade, it would be best to leave important, and well needed facilities in the project to be completed at such time as funds are available. Should the financial situation change in the next 20 years, or so, it would require a brand new process to include these amenities. I see no expiration date on this document.

MKC004-5

It is suggested that the much needed equestrian campground be eliminated. Weeks of temperatures above 100 degrees this past summer, makes the nearby availability of a place with cooler temperatures for recreation greatly needed. It seems an increase in such amenities is needed, not a reduction. The equestrian campground, according to the equestrians who attended the scoping meetings, needs no facilities. While providing a place for horse owners to recreate, the Forest Service also adds to visitor enjoyment. The horses are part of the experience of visiting the mountain and people frequently stop to express their delight in seeing the horses.

MKC004-6

While acknowledging that visitor traffic to the Mount Charleston area is expected to increase, the document calls for cutting back a great number of amenities. If the

budget can't handle it now, build phase one in such a manner that a phase two or even three and four can add to them in later years to accommodate the anticipated increase in visitor volume. A wide variety of programs can be scheduled to hold the attention of people visiting the Middle Kyle Canyon complex, but the Forest Service needs a facility large enough to accommodate them. MKC004-6

On page ES-11 it is mentioned that a commercial campground would be visible from SR 158. Plant trees to hide it, redesign it and farm it out to a commercial campground operator to generate more funds to spend on this project. MKC004-7 On page ES-10 it is stated, "A general downsizing of recreation facilities would reduce the extent of the associated landscape alterations." MKC004-8 A ten-year old could have figured that out. Just think of how protected the landscape would be if the recreation facilities were eliminated, or closed to the public. This sentence shows you are not being realistic. If you want more people to spend time in this area you will get more "associated landscape alterations," but fewer at the critical top of the mountain.

The more I read of this document the more I feel someone edited Hal Peterson's work. The plan, as stated, does not reflect what the public said they wanted. And the Forest Service should understand they are here to serve the public. There is much in the plan that is good, but too often the cutting back and eliminating amenities that are needed does not show a concern for the people served by this segment of the National Forest. I would be happy to sit with Hal Peterson and discuss specific items and ways to serve the people who gave their time to attend the open meetings to provide guidance to those planning this project. MKC004-9

Sincerely

Ed Dodrill, President
Southern Nevada Regional Trails Partnership
A 501 (C) 3 Nevada corporation
7795 N. Torrey Pines Drive
Las Vegas, NV 89131

RID	OT	S	RT	DT	IA	F	RI	CE

MKC005

From: Hal A Peterson [hapeterson@fs.fed.us] on behalf of Middle Kyle Complex [middlekylecomplex@fs.fed.us]
Sent: Monday, October 19, 2009 9:33 AM
To: Bobby Tuttle; Stevens, Kimberly
Subject: Fw: Middle Kyle Complex DEIS

Follow Up Flag: Follow up
Flag Status: Flagged

for info

----- Forwarded by Hal A Peterson/R4/USDAFS on 10/19/2009 08:32 AM -----

"Jim D. Mesalic" <jd@mesalic.com>

10/16/2009 08:34 AM

To '"Hal Peterson"' <MiddleKyleComplex@fs.fed.us>
cc
Subject Middle Kyle Complex DEIS

Dear Mr. Peterson:

I am Owner and future resident of Mt. Charleston properties.
128 Kris Kringle Rd. 130 Kris Kringle Rd. and 79 Snow White Rd. Mt. Charleston, NV. 89124 MKC005-1

I am strong supporter of the projects in Kyle Canyon and Lee Canyon.
Please proceed with constructions.

Thanks for good work.

Jim D. Mesalic
Las Vegas, NV

RID	OT	S	RT	DT	IA	F	RI	DE

MKC006

DAQEM

DEPARTMENT OF AIR QUALITY & ENVIRONMENTAL MANAGEMENT
500 S Grand Central Parkway 1st Floor · Box 555210 · Las Vegas, NV 89155-5210
(702) 455-5942 · Fax (702) 383-9994
Lewis Wallenmeyer Director · Tina Gingras Assistant Director

November 5, 2009

Mr. Hal Peterson, Middle Kyle Complex Project Manager
Spring Mountains National Recreation Area
4701 North Torrey Pines Drive
Las Vegas, Nevada 89130

Received
USDA Forest Service
NOV 10 2009
Humboldt-Toiyabe N.F.
Spring Mountains NRA

Middle Kyle Complex Draft Environmental Impact Statement

Dear Mr. Peterson:

The Clark County Department of Air Quality and Environmental Management (DAQEM) has reviewed the subject Draft Environmental Impact Statement (DEIS) for air quality and environmental regulatory compliance. DAQEM has previously submitted comments on the Middle Kyle Complex project, specifically on the "Middle Kyle Complex Air Quality Specialist Report," which is referenced several times in the DEIS. The following comments were submitted in a letter dated July 2, 2009, during the previous comment period; we are providing again for your use.

The DAQEM Air Program understands the U.S. Forest Service intends to improve the recreational services at the Middle Kyle Complex and offers the following recommendations:

1. The annual National Ambient Air Quality Standard for particulate matter with an aerodynamic diameter less than 10 microns (PM_{10}) has been revoked. Any references to that standard should be removed because it is no longer enforced. MKC006-1

2. The report states that Clark County is a serious nonattainment area for ozone. However, the U.S. Court of Appeals for the District of Columbia Circuit vacated Subpart 1 of the Clean Air Act; therefore, Clark County currently has no formal ozone classification. The statement should be corrected to reflect this status. MKC006-2

3. Currently, Clark County is in attainment for $PM_{2.5}$. The report's "Air Quality Attainment Status" section states: "Clark County has recommended the region should be designated as a nonattainment area." In a letter dated August 18, 2008, the U.S. Environmental Protection Agency concurred with the recommendation by Clark County and the Nevada Division of Environmental Protection (NDEP) that all areas of the state meet the $PM_{2.5}$ standard. MKC006-3

BOARD OF COUNTY COMMISSIONERS
Rory Reid Chairman · Susan Brager Vice-Chairman
Larry Brown, Tom Collins, Chris Giunchiglioni, Steve Sisolak, Lawrence Weekly
Virginia Valentine, PE, County Manager

4. Pursuant to Section 176(c) of the Clean Air Act, federally supported highway and transit project activities must comply with transportation conformity requirements. The improvements proposed for State Highway 157 should be evaluated for transportation conformity applicability. MKC006-4

The DAQEM Water Quality Planning Section has reviewed the proposed project, located within Hydrographic Basin 212 of Clark County, Nevada, for adherence to the Clean Water Act and Clark County codes and regulations, and offers the following suggestions:

1. The project should adhere to the recommendations and provisions of the *Clark County 208 Area-Wide Water Quality Management Plan* (WQMP). We recommend continuous contact with the DAQEM Water Quality Team to ensure that wastewater treatment data is reviewed for suitability with the approved WQMP and that any WQMP amendments are completed before infrastructure construction. MKC006-5

2. The project should adhere to Chapter 24.40 of the Clark County Code, "Storm Sewer System Discharge." MKC006-6

3. The project should use low-impact development design criteria to minimize the erosive and pollution potential of storm water and surface water flow. MKC006-7

4. If the proposed facility and Standard Industrial Code require, based on 40 CFR 122.26, the owner/operator must file a Construction Notice of Intent for storm water discharge during the construction phase with the Nevada Division of Environmental Protection and prepare a storm water pollution prevention plan. MKC006-8

5. In Table 2.3 of the "Water" section, please add the following statement: "Implement site-appropriate best management practices found in the June 2008 *Nevada Contractors Field Guide for Construction Site Best Management Practices*." Implementation of principles found in the January 2009 *Las Vegas Valley Construction Site Best Management Practices Guidance Manual* is also recommended. MKC006-9

Thank you for the opportunity to review this DEIS. If you have any further questions, please contact me at (702) 455-1600.

Sincerely,

L. Wallenmeyer

Lewis Wallenmeyer
Director

MKC007

RID OT S RT DT IA F RI CE

STATE OF NEVADA

DEPARTMENT OF WILDLIFE

1100 Valley Road
Reno, Nevada 89512
(775) 688-1500 • Fax (775) 688-1595

JIM GIBBONS
Governor

KENNETH E. MAYER
Director

RICHARD L. HASKINS II
Deputy Director

SOUTHERN REGION
4747 WEST VEGAS DRIVE
LAS VEGAS, NEVADA 89108
(702) 486-5127; 486-5133 FAX

Received
USDA Forest Service
NOV 10 2009
Spring Mountains NRA

November 9, 2009

NDOW-SR#: 10-108
SAI #: E2010-073

Mr. Hal Peterson
Middle Kyle Complex Project Manager
Spring Mountains National Recreation Area
4701 N. Torrey Pines Drive
Las Vegas, Nevada 89130

RE: Draft Environmental Impact Statement for the Middle Kyle Complex Project, File Code 1950-3/2300 (Complex DEIS)

Dear Mr. Peterson:

The Nevada Department of Wildlife (NDOW) has taken opportunity to review the Complex DEIS. The challenges associated with the present project effort are appreciated. As a cooperating agency we noted the Proposed Action has become considerably scaled-down from the original approach. Consequently, we are sorry to see several concerns for wildlife resources that were raised during initial scoping and subsequent project team meetings remain inadequately addressed. The following discussion focuses on the Proposed Action with examples of deficits regarding wildlife considerations. MKC007-1

Generally, accommodating a larger population of park patrons within the planning area's already developed and highly visited canyons will result in corresponding increases in differential influences and pressures on important natural features and resource values found there. NDOW understands the project's SNPLMA funding disallows the U.S. Forest Service budgeting for staff to undertake education, enforcement presence, and dispersed resource monitoring functions. And the Forest Service has made prediction of future incursions by planned and unplanned dispersed camping and user-created thoroughfares. Regardless of present funding limitations, a stronger commitment displayed by recognizing and detailing maintenance and operations support needs for the enhanced visitor environment including hired personnel tasked with ensuring compliance, education, and conservation duties would have benefited the Complex DEIS, especially in cumulative effects analyses. Relevance of the business model as referred to in Appendix A as a response to many questions of this nature seems to have fallen short of providing clear plan for acquiring more eyes and ears on the SMNRA. MKC007-2

It was our understanding that many unauthorized, user-created roads, trails and other thoroughfares would be closed and rehabilitated by virtue of the Complex project. This is stated in the 3rd paragraph on Page 1-26 under "Proposed Action," however expectation for an overall reduction of roads and trails contributing to net impact reductions to wildlife habitat became less optimistic. On pages 3.1-6 through MKC007-3

3.1-8 in Chapter 3 under "Affected Environment – Non-native Invasive Species" it clearly states that the proposed action would result in 9.7 miles of designated roads and trails per square mile, and a total length in roads and trails of 48 miles. The Market Supported alternative would result in 8.4 miles per square mile and a total length of 44 miles of Forest Service designated roads and trails. Both of these are increases over the existing conditions of 7.2 miles per square mile and 22 total miles of roads and trails. It cannot be over emphasized that increased recreation without obvious reductions resource impacts and a corresponding increase in law enforcement and resource monitoring presence translates to increases in disturbance and fragmentation of habitat, establishment of new user-created thoroughfares, and harassment of wildlife by, for example, uncontrolled pets. MKC007-3

Increased capacity for camping facilities and the corresponding increase in the number of users will result in increased wood cutting and collecting of down and dead woody materials which is critical to the survival of the Palmer's chipmunk and other species in the upper portions of the Complex. Design criteria do not specify a remedy for this anticipated impact. Although at least some administrative discretion would seem available to the Forest Service as indicated in the paragraph in the center of page ES-7 concerning dispersed camping. Perhaps changing one word in the first sentence of this paragraph from "may" to "will" would make a difference. MKC007-4

Does inclusion of clean-up and policing of the Spring Mountains NRA because these activities and the funding supporting them are conditional project tangibles? Why would they not be part of normal NRA programs in order to occur? The text and photos on Page 2-4 addressing illegal dumping and vandalism of cultural sites seems to be an indication of Forest Service's needs to focus on alternative workforces, perhaps volunteer organizations, to help fill in performance gaps for basic park functions such as trash and litter clean-up and active compliance patrols. MKC007-5

The location of the Middle Kyle Canyon Complex is within an important mountain brush and chaparral habitat type adjacent to lower montane woodlands (Pinyon-juniper) at its upper elevations and mixed desert scrub type (Joshua tree / blackbrush) along the lower portions of the Complex. This chaparral habitat is not common in many areas of the Mojave Desert but supports wildlife species, in particular birds, which are important conservation targets for the Nevada Chapter of Partners in Flight and the Spring Mountains Conservation Agreement. These are noted below with accompanying rationale: MKC007-6

Species	Rationale
Black-chinned sparrow	Spring Mountains National Recreation Area Conservation Agreement (SMNRACA) Watch list species – Partners in Flight Species of Conservation Priority – Audubon Watch List (Red)
Gray vireo	SMNRACA Watch list species – Partners in Flight Species of Conservation Priority – Audubon Watch List (Yellow)
Pinyon jay	SMNRACA Watch list species – Partners in Flight Species of Conservation Priority – Audubon Watch List (Yellow)
Virginia's Warbler	Partners in Flight Species of Conservation Priority – Audubon Watch List (Yellow)
LeConte's Thrasher	Partners in Flight Species of Conservation Priority – Audubon Watch List (Yellow)
Gray flycatcher	SMNRACA Watch list species – Partners in Flight Species of Stewardship Priority – Audubon Watch List (Yellow)

In Table 3.3-3 on Page 3.3-20, potential impacts resulting from the Proposed Action to both Great Basin collared lizard and Western red-tailed skink describe impacts to the banded gecko under. Need for correction? MKC007-7

The actual supplying of game fish for stocking and compliance administration of a put-and-take program are two key elements necessary to facilitate a satisfying outdoor education angling experience. The necessary infrastructure required for implementation and perpetuation of the proposed program has yet to be adequately coordinated by the Forest Service NDOW's Southern Region Fisheries Division for guidance and permitting information and opportunities. MKC007-8

If you have any additional questions or concerns, please contact Roddy Shepard, Habitat Biologist, at (702-486-5127 x3613; e-mail- rshepard@ndow.org), or Cris Tomlinson, Regional Wildlife Diversity Supervisor at (702-486-5127 x3700; email- ctomlinson@ndow.org).

Sincerely,

D. R. M. (FOR)

D. Bradford Hardenbrook
Supervisory Habitat Biologist

RS/CRT

cc: NDOW, Files

RID	OT	S	RT	DT	IA	F	RI	CE

MKC008

Stevens, Kimberly

Subject: FW: DEIS

From: Hal A Peterson [mailto:hapeterson@fs.fed.us] **On Behalf Of** Middle Kyle Complex
Sent: Friday, November 06, 2009 3:43 PM
To: Stephanie A Phillips; Bobby Tuttle; Stevens, Kimberly; Blaze O Baker; Rick Baxter
Subject: Fw: DEIS

----- Forwarded by Hal A Peterson/R4/USDAFS on 11/06/2009 02:40 PM -----

"Lee Bice" <Bice@co.clark.nv.us>

11/06/2009 09:10 AM

To MiddleKyleComplex@fs.fed.us
cc "Lee Bice" <Bice@co.clark.nv.us>, "Marci Henson" <Mhenson@co.clark.nv.us>
Subject DEIS

Hal Peterson, Middle Kyle Complex Project Manager
Spring Mountains National Recreation Area

Dear Mr. Peterson:

MKC008-1

The Clark County Department of Air Quality and Environmental Management Desert Conservation Program Division has reviewed the subject draft environmental impact statement (DEIS) for the Middle Kyle Complex project and has noted a number of butterfly and rare plant species are found in the project area. These species are addressed in the Spring Mountains Conservation Agreement between U.S. Fish and Wildlife Service and the U.S. Forest Service. We encourage the U.S. Forest Service to minimized any negative impacts to these species or to their habitats.

Thank you for the opportunity to review this DEIS. If you have any further questions, please contact me at (702) 455-3554.

Sincerely,
Lee Bice

Lee Bice
Senior GIS Analyst
Clark County
Desert Conservation Program
Atrium Business Tower
333 North Rancho Dr
Suite 625
Las Vegas, Nevada 89106
702.455-3554
Bice@co.clark.nv.us

desert conservation
PROGRAM
respect, protect and enjoy our desert!

MKC009

RID	OT	S	RT	DT	IA	F	R	CE

Judith H. Ridley
5001 Churchill Avenue
Las Vegas, Nevada
89107

Hal Peterson, Middle Kyle
Complex Project Manager,
Spring Mountains National Recreation Area
4701 N. Torrey Pines Dr.
Las Vegas, Nevada 89130

November 9th, 2009

Dear Mr. Peterson:

I would like to submit my comments after reading and in response to: "The Draft Environmental Impact Statement (DEIS) for the Middle Kyle Complex" project, located on the Spring Mountains National Recreation Area (SMNRA).

MKC009-1

Debris Flows and Floods

One of the most troubling aspects of this project is that hundreds of acres of soil will be disturbed (page 3.1-11) in action alternatives. There really is no way to know if your mitigation measures will stop debris flows, slope failure, and flood damage. Sometimes there is loss of life do to these types of events. — Please develope a worst case scenario, including intense flash flooding and rain-on-snow event. — Some day the land below this project may be developed. We owe it to the people and land owners to be honest about potential risk.

MKC009-2

The hydrologic analysis should be included within the final EIS. Expand on the discussion found on page 3.1-14

over

MKC009

MKC009-2

of the DEIS which states: "The potential exists for debris flows and flash floods to occur in Kyle wash and in smaller tributaries and swales. The debris flows and flash floods typically occur in response to intense rainfall. These events are exacerbated in watersheds where a wildfire has occured in the recent past, or in which significant areas of impervious surfaces contribute to increased runoff potential".

MKC009-3

Please include comments from the U.S. Army Corps of Engineers regarding the Kyle wash (page 3.7-10 DEIS). Is there a risk that human waste could reach and contaminate the ground-water if the system is over-whelmed by a severe weather event? Please consult with the Army Corps on this issue and on the issue of flooding.

MKC009-4

How much fill material will be hauled up the Kyle Canyon Road to the project area? And where will this fill come from? What type of fill? How many truck loads will it take to move the fill up the mountain? Please reveal in the final EIS.

MKC009

MKC009-5

Ground Water Pumping

The vast amount of ground water that may be used by this project shocks me! On page (S-54 DEIS) it says that consumption of water is not to exceed 83.54 acre-feet annually. How will this huge amount of pumping effect ground water levels? What plants, including trees, will no longer get enough water to be healthy or survive? What animals that depend on both the plants and water now will die? How fast will the ground water level drop? How will the drop in ground water effect the risk of fire if the forest drys? If the forest becomes drier how will this increase the risk for people living or visiting if there is a fire?

MKC009-6

This issue is serious. Please show a chart giving approximate amounts of water given to end-users, and what all this water will be used for... and where?

MKC009-7

Is the pumping of almost 83.54 acre-feet annually from the old Nel Golf Course property sustainable? Give proof to justify your response. Please take into consideration the potential for long-term drought. Also consider additional ground-water use

Mead

MKC009-7

into the future. What would the effects of pumping have on ground water levels in twenty years or in fifty years?

MKC009

Ground Surveys

MKC009-8

Please complete ground surveys for threatened, endangered, and sensitive species before the final EIS is written so that this information may be included. All ground surveys should be completed before a final decision because afterward is often too late! And this goes for other species which will be impacted as well.

Mead

MKC009

Request

MKC009-9

Please send me a copy of: the April 2009 Draft Vegetation Management Plan for the Kyle Campground, Kyle CCC Camp and the proposed Middle Kyle Complex (Above and Beyond Ecosystems Enterprise Unit 2009).

and...

Biological Assessment / Biological Evaluation (ICF Jones + Stokes 2009b)

and...

a paper copy of the final EIS and decision notice.

and...

Notification if there is an extension of time for the comment period for the draft EIS.

Mead

MKC009-10

I support the "NO ACTION ALTERNATIVE" because after reading the DEIS I believe the proposed project will do much more harm than good.

Thank you for the opportunity to participate in the public process.

Sincerely,

Judith H. Pifley

Mead

RID	OT	S	RT	DT	IA	F	RI	CE

MKC010

DEVELOPMENT SERVICES CENTER

CITY OF LAS VEGAS

Public Works Department
Engineering Planning

731 S. Fourth Street
Las Vegas, NV 89101

Voice 702-229-6541
FAX 702-382-8551
TTY 702-386-9108

July 9, 2009

Hal Peterson
Middle Kyle Complex Project Manager
Spring Mountains National Recreation Area
4701 N. Torrey Pines Dr.
Las Vegas, NV 89130

Re: Middle Kyle Complex - Draft Environmental Impact Statement (DEIS) - City of Las Vegas (CLV)Public Works and Planning Departments Comments

Mr. Peterson,

Since the Middle Kyle Complex project boundary does not abut the City of Las Vegas limits, the City has no comments regarding the subject DEIS.

Sincerely,

cldiso

Connie L. Diso, P.E.
Project Engineer
City of Las Vegas Public Works
Engineering Planning
cdiso@lasvegasnevada.gov
229-2142

Las Vegas City Council
Oscar B. Goodman
Mayor
Gary Reese, Ward 3
Mayor Pro Tem
Steve Wolfson, Ward 2
Lois Tarkanian, Ward 1
Steven D. Ross, Ward 6
Ricki Y. Barlow, Ward 5
Stavros S. Anthony, Ward 4

City Manager
Elizabeth N. Fretwell

Public Works Director
Jorge Cervantes
P.E., P.T.O.E.

15901-005-08-09

RID	OT	S	RT	DT	IA	F	RI	CE

MKC011

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Pacific Southwest Region
1111 Jackson Street, Suite 520
Oakland, California 94607

IN REPLY REFER TO:
ER09/1091

Electronically Filed

13 November 2009

Hal Peterson
4701 N Torrey Pines Dr.
Las Vegas, NV 89130

Subject: Review of Draft Environmental Impact Statement (EIS) for the Middle Kyle Canyon Complex Project, Spring Mountains National Recreation Area, Humboldt-Toiyabe National Forest, Clark County, Nevada

Dear Mr. Peterson:

The Department of the Interior has received and reviewed the subject document and has the following comments to offer.

MKC011-1

The U.S. Fish and Wildlife Service's (Service), Nevada Fish and Wildlife Office in Las Vegas, Nevada has worked with the Forest Service's Spring Mountains NRA staff on the subject project for many years. The Service's authority for cooperation with the Forest Service and review of the proposed project is under the auspices of the *Conservation Agreement for the Spring Mountains NRA, Clark and Nye Counties, Nevada* signed in 1998. The purpose of this Conservation Agreement is to provide long-term protection for the rare and sensitive flora and fauna located in the Spring Mountains NRA sufficient to preclude the future need to list any of the species under the Endangered Species Act of 1973, as amended.

In addition, both agencies are signatories to the *Memorandum of Agreement* (MOA) *Concerning Endangered Species Act Section 7 Consultations and Coordination* signed in 2004 to establish a general framework for a streamlined process for interagency cooperation within the jurisdiction of the Humboldt-Toiyabe National Forest and the Nevada Fish and Wildlife Office.

Based on the implementation of the Conservation Agreement and MOA, our agencies have an established process for project input, review and concurrence on projects. The Service's Nevada Fish and Wildlife Office will continue to work with the Forest Service through the established process under the Conservation Agreement and MOA to address outstanding concerns or issues

related to species protection and conservation in the Spring Mountains NRA as it pertains to the Middle Kyle Canyon Complex Project. MKC011-1

If you have any questions related to this correspondence, please contact Amy M. LaVoie in the Nevada Fish and Wildlife Office in Las Vegas at (702) 515-5230.

Thank you for the opportunity to review this project.

Sincerely,

Patricia Sanderson Port
Regional Environmental Officer

cc:
Director, OEPC
FWS, Region VIII

RID	OT	S	RT	DT	IA	F	RI	CE

MKC012

Katherine Ujifusa
3810 West Verde Way
North Las Vegas, NV 89031

November 13, 2009

Hal Peterson
Middle Kyle Complex Project Manager
Spring Mountains National Recreation Area
4701 North Torrey Pines Drive
Las Vegas, NV 89130-2301

RE: Comments on DEIS for the Middle Kyle Canyon Complex Project

Delivered via email and USPS postmarked 11.13.09

Dear Hal,

Thank you for a copy of the DEIS Middle Kyle Canyon Complex Project. After reviewing, my comments and suggestions are listed below for your consideration prior to moving forward with Alternative 3 (Market Supported Alternative) on the project.

- Please ensure all multi-use trails constructed are built to equestrian standards. MKC012-1
- Please re-consider a crossing area on SR 158 (Deer Creek Highway) to connect equestrian use from the main staging area (gravel pullout across from the Mt. Charleston Resort – Telephone Canyon) to Fletcher Canyon Trail. Most horse trailers will not fit in the proposed parking at the Fletcher Canyon Trailhead. Without a safe crossing, equestrian access is dramatically decreased for access to the Fletcher Canyon Trail. Horse crossing signage and caution lights would be adequate. MKC012-2
- I am <u>not</u> in favor of dispersed camping closure 300 feet on either side of all Forest system roads. With the lack of a designated equestrian campground that is greatly needed, camping within 300 feet of a Forest system road is the only alternative for most equestrians with horse trailers. Under the dispersed camping closure, an equestrian would need a horse pack string and be able to travel to water for overnight camping. This closure would limit access for various equestrians of diverse abilities to enjoy the developed canyons of Kyle and Lee, especially the Blue Tree area with the extensive equestrian trail network that can provide multi-day riding opportunities. MKC012-3
- I am in favor of equestrian access to multi-use trails developed on the South side of SR 157. Please re-consider a crossing area on SR 157 connecting from the main staging area in Telephone Canyon to the variety of multi-use trails proposed. If an equestrian campground is re-considered in this area, please keep in mind that the equine and rider must be at the same campsite. Separation of the equine to corrals and parking of horse trailers in the campground of another area is not a recommended option. MKC012-4 MKC012-5

In conclusion, please keep in mind equestrians are of a variety of abilities and ages including those with handicaps as with other user groups. Please consider carefully the access for equestrians to equally enjoy Kyle Canyon, Lee Canyon, and Deer Creek areas as done for other user groups. MKC012-6

Thank you.

RID	OT	S	RT	DT	IA	F	RI	CE

MKC013

From: Stevens, Kimberly
Sent: Tuesday, November 17, 2009 3:04 PM
To: Davis, Susan
Subject: FW: DEIS-Ward

From: Hal A Peterson [mailto:hapeterson@fs.fed.us] **On Behalf Of** Middle Kyle Complex
Sent: Tuesday, November 17, 2009 3:52 PM
To: Tuttle, Bobby; Stevens, Kimberly; Stephanie A Phillips
Subject: Fw: DEIS

----- Forwarded by Hal A Peterson/R4/USDAFS on 11/17/2009 02:50 PM -----

"Rodney" <soonerfan89@cox.net>

11/16/2009 10:01 PM

To <MiddleKyleComplex@fs.fed.us>
cc <hapeterson@fs.fed.us>
Subject DEIS

The purpose of this note is to provide "Public comments on the DEIS for the Middle Kyle Complex."

First, I believe the overall suggested plan for by the USFS is a relatively good recommendation. The following are comments / suggestions on a few points. MKC013-1

- Amphitheater:
  - The seating capacity (150) for the main amphitheater appears to be far too small. This will severely limit the use of said theater. Please re-consider increasing the size of this amphitheater to the "Proposed Action" of the 1,500 capacity. MKC013-2
- Trails:
  - Hiking only trails = 8.6 miles
  - Biking only trails = 2.8 miles
  - Hiking & biking trails = 17.4 miles
  - Hiking & equestrian trails = 6 miles
  - Hiking, biking and equestrian trails = 13.3 miles
  - The addition of the multi-use trails is a great addition to this project. MKC013-3
  - Re-consider increasing the # of miles of hiking and biking trails. MKC013-4
  - Recommend connecting the bike trails on this project to the bike trails on the BLM "Twilight Zone" area. MKC013-5
  - Recommend to continue to involve the user groups to design and build trail systems throughout the project. MKC013-6
- Trail Bridge for Kyle Wash / Slot Canyon: MKC013-7
  - Re-consider adding this to the hiking & biking trail system. This will be a great way for people to view the area as well as hike / bike in the canyon. Avoid paving the trail.
- Commercial Equestrian Trail Rides: MKC013-8
  - Recommend eliminating this practice. The increased traffic by commercial use of the trails will decrease the life of the "sustainable" trail system. This is counterproductive to the purpose of this project.

Thank you in advance for consideration of these suggestions.

Rodney Ward

RID	OT	S	RT	DT	IA	F	RI	CE

MKC014

From: Stevens, Kimberly
Sent: Tuesday, November 17, 2009 3:05 PM
To: Davis, Susan
Subject: FW: Comments on DEIS on MIDDLE KYLE COMPLEX - Attn: Hal Peterson_ Greene

---

From: Hal A Peterson [mailto:hapeterson@fs.fed.us] **On Behalf Of** Middle Kyle Complex
Sent: Tuesday, November 17, 2009 3:54 PM
To: Tuttle, Bobby; Stevens, Kimberly; Stephanie A Phillips
Subject: Fw: Comments on DEIS on MIDDLE KYLE COMPLEX - Attn: Hal Peterson

----- Forwarded by Hal A Peterson/R4/USDAFS on 11/17/2009 02:53 PM -----

"Ellis Greene" <ellisgreene@cox.net>

11/16/2009 09:35 PM

To <MiddleKyleComplex@fs.fed.us>
cc
Subject Comments on DEIS on MIDDLE KYLE COMPLEX - Attn: Hal Peterson

MKC014-1

General statement; I have not done a thorough review of the DEIS on the Middle Kyle Complex. I did paticupate in the Sumit for this project, and I am quite familiar with the drives which started the whole thing. The screams of those who own land and houses in the upper areas, and their desire--in some way--to focus interest in lower areas and reduce drivers/lookers from driving to the upper areas where there is inadequate parking and turnaround capability were high priority items -- in addition to the desires to some portions of the land that arre overused and impacted. **This should hae been included on page ES-2 in the first major paragraph of Purpose and Need for Action.**

MKC014-2

I have participate in all of the other meetings I am aware of and have made inputs -- many of which have not been used.

MKC014-3

I have been visting Mt Charleston and using almost all of the recreation tails, primarly by Horseback, for approximately 20 years. The primary recreation users are persons who walk the trails, equestrians who ride the trails, and (increasingly) mountain bikers.

Only the mountain bikes have appreciably impacted the existing small trails (many established by wild horses). But even the biker damage has not
been too bad -- except in Telepehone Canyon. Some of these riders would have the trails designated for mountain bikes only. **THIS MUST NOT**
OCCUR!

MKC014-4

Motor vehicles, particularly ATVs, have impacted many roads, particularly in portions of the Blue ree Trails system. To a large extent, the study of motorized uses, signs inplaced by USFS, and enforcement (inadequate) have made good strides in stopping this damage.

MKC014-5

I object to the general administrative action that would prohibit dispersed camping within 300 feet on either side of forest service roads and trails as in the DEIS and the letter/introduction by Hal Peterson prior to Page ES-1. {prohibition of some very specific spots/areas may be satifacatory, but the **general rule MUST NOT BE IMPLEMENTED**. Camping in a natural setting is desirable and needed. As examples, the small areas used by campers along Mac Canyon Road should not be prohibited., and some of the camping along recognized roads in the Blue tree area should not be prohibited.
Certainly, campingin in the general Blus Tree area SHOULD NOT BE PROHIBITED.

RID	OT	S	RT	DT	IA	F	RI	CE

MKC015

From: Stevens, Kimberly
Sent: Tuesday, November 17, 2009 3:06 PM
To: Davis, Susan
Subject: FW: Comments on DEIS - Middle Kyle Complex - Attn: Hal Peterson - Greene
Attachments: COMMENTS ON DEIS FOR MIDDLE KYLE COMPLEX November 16.doc

---

From: Hal A Peterson [mailto:hapeterson@fs.fed.us] **On Behalf Of** Middle Kyle Complex
Sent: Tuesday, November 17, 2009 3:58 PM
To: Tuttle, Bobby; Stevens, Kimberly; Stephanie A Phillips
Subject: Fw: Comments on DEIS - Middle Kyle Complex - Attn: Hal Peterson

----- Forwarded by Hal A Peterson/R4/USDAFS on 11/17/2009 02:56 PM -----

"Ellis Greene" <ellisgreene@cox.net>

11/17/2009 01:25 AM

To <MiddleKyleComplex@fs.fed.us>

cc "* DeLecce, Rose \(HC -NW" <paintdancer@cox.net>, "* Bozarth Angela HCON Trails" <gdeup@ymail.com>, "* Bruce Valerie HCON Trail" <nlvcowgirl@aol.com>, "* Eaton JACKIE HCON Trails " <inshooz325@yahoo.com>, "* Eddy Jordan HCON Trails" <jordan.eddy@cox.net>, "* Finnegan Dan & Marilyn HCON Trail" <dnmfinnegan@yahoo.com>, "* Graitge Elaine HCON Trails" <adch.lab1@cox.net>, "* kunz" <Trlrydr1@aol.com>, "* Rice Claudette" <cmr41@embarqmail.com>, "* Thomas" <ronaldfthomas@att.net>, "*******Greene Ellis" <ellisgreene@cox.net>, <editoredd@embarqmail.com>

Subject Comments on DEIS - Middle Kyle Complex - Attn: Hal Peterson

Comments on the DEIS, Middle Kyle Canyon are provided in the attachment and below.

COMMENTS ON DEIS FOR MIDDLE KYLE COMPLEX November 16, 2009

General Comments:

MKC015-1

I have not been able to read and comment on this DEIS to the extent desired and by initial efforts were foiled by the accidental loss of the file on computer. I participated in the Summit meeting and all of the meetings I was aware off and made inputs – many of which were not used.

Letter by Edward Monning and Introduction by Hal Peterson, page prior to DEIS Page ES-1

MKC015-2

I agree with decisions not to implement should Alt 3 be selected. The same considerations should be taken for Alt 2.

MKC015-3

I do **NOT AGREE** with the Administrative Action to prohibit dispersed camping within 300 feet on either side of forest roads and trails. Such camping is needed by persons who want camping in a natural setting. Most of the places that are in use should be retained—particularly those along Mack Canyon Road and some places within the Blue Tree Area. The Forest Service should not implement this general action.

MKC015

Some very specific prohibitions maybe appropriate. MKC015-3

DEIS Executive Summary.

MKC015-4

DEIS Page ES-2, Purpose: The screams of the people living at higher levels on the mountain should have been included when discussing the purpose of the DEIS. These people want to reduce the number of persons entering the mountain, particularly in their areas. The "lookers" drive and turn around and have no place to park.

ALTERNATIVES

MKC015-5

DEIS Page Es-4/5. From a recreation stand point, Alternative 1 isn't all bad. I am **particularly concerned about the clutter and encroachment on the lower lever of Telephone Canyon in Alternatives 2 and 3**. Telephone Canyon is a prime area, and the views should not be impacted seriously with all the planned facilities.

MKC015-6

DEIS, Page ES-6. I agree with the decisions NOT to implement the items listed under Forest Service's Preferred Alternative. **The actions identified should not be implemented for any of the alternatives.**

Table ES-1

MKC015-7

As already stated, I do not agree with the general Administrative Action to prohibit dispersed camping. USFS must be specific and **should not use** this document to implement a questionable action for the large forest area mentioned.

MKC015-8

Page ES-8 and others. Verbiage on trail management, design, control, etc. is not specific and may or may not be acceptable. No trails should be closed to equestrians. If a trail is of sufficient concern due to conflicts with mountain bikes, other solutions should be used. MKC015-9
This is because the trails are limited, particularly if the available loops are disrobed by closures of certain trails. Possibly, certain days could be designated for the types of users, but no trails should be closed...

Proposed Action, Page 1-23, Figure 1-3, and Other.

MKC015-10

The Helipad is too close to the equestrian campground. Recommend placement on south side of SR 157 (where people will understand the disturbances) or further to the east of project area.

MKC015-11

The Horse Rental/Coral/Parking area is very large and close to the trail to the north on the illustration. During construction this should be considered.

MKC015-12

I really do not care for the placement of the USFS Staff Housing and Research Building and the Interagency Building (already spoken to above) along Telephone Canyon Road or the associated road paving and closure gate. These facilities should be on SR 157 so that the appearance of the canyon entry can be maintained,

MKC015-13

From the outset, I have objected to the closure of Slot Canyon and the trail through the deep canyon/wash to the equestrian parking area. Improvements in the trail will be required for pedestrian use due to the large rocks that are now present. If this were improved, this would make the trail would also make this trail suitable for horses.

Comments are from:

Ellis P. Greene II
5024 N, Cimarron Road
Las Vegas, NV 89149
702-645-5181 and 493-3982

COMMENTS ON DEIS FOR MIDDLE KYLE COMPLEX November 16, 2009

General Comments:

I have not been able to read and comment on this DEIS to the extent desired and by initial efforts were foiled by the accidental loss of the file on computer. I participated in the Summit meeting and all of the meetings I was aware off and made inputs – many of which were not used.

Letter by Edward Monning and Introduction by Hal Peterson, page prior to DEIS Page ES-1

I agree with decisions not to implement should Alt 3 be selected. The same considerations should be taken for Alt 2.

I do **NOT AGREE** with the Administrative Action to prohibit dispersed camping within 300 feet on either side of forest roads and trails. Such camping is needed by persons who want camping in a natural setting. Most of the places that are in use should be retained—particularly those along Mack Canyon Road and some places within the Blue Tree Area. The Forest Service should not implement this general action. Some very specific prohibitions maybe appropriate.

DEIS Executive Summary.

DEIS Page ES-2, Purpose: The screams of the people living at higher levels on the mountain should have been included when discussing the purpose of the DEIS. These people want to reduce the number of persons entering the mountain, particularly in their areas. The "lookers" drive and turn around and have no place to park.

ALTERNATIVES

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Page ES-8 and others. Verbiage on trail management, design, control, etc. is not specific and may or may not be acceptable. No trails should be closed to equestrians. If a trail is of sufficient concern due to conflicts with mountain bikes, other solutions should be used. This is because the trails are limited, particularly if the available loops are disrobed by closures of certain trails. Possibly, certain days could be designated for the types of users, but no trails should be closed...

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Comments are from:

Ellis P. Greene II
5024 N, Cimarron Road
Las Vegas, NV 89149
702-645-5181 and 493-3982

RID	OT	S	RT	DT	IA	F	RI	CE

MKC016

Nevada State Clearinghouse

From: Sue Gilbert
Sent: Wednesday, October 07, 2009 11:41 AM
To: Nevada State Clearinghouse
Subject: E2010-073
Attachments: image001.jpg

From: Nevada State Clearinghouse
Sent: Friday, September 25, 2009 9:43 AM
To: Robert K. Martinez
Subject: E2010-073 Middle Kyle Complex recreation area and admin facilities, Clark County - US Forest Service

NEVADA STATE CLEARINGHOUSE
Department of Administration, Budget and Planning Division
209 East Musser Street, Room 200, Carson City, Nevada 89701-4298
(775) 684-0213 Fax (775) 684-0260

TRANSMISSION DATE: 9/25/2009

Division of Water Resources

Nevada SAI # E2010-073

Project: Middle Kyle Complex recreation area and admin facilities, Clark County

Follow the link below to download an Adobe PDF document concerning the above-mentioned project for your review and comment.

E2010-073

Please evaluate it with respect to its effect on your plans and programs; the importance of its contribution to state and/or local

areawide goals and objectives; and its accord with any applicable laws, orders or regulations with which you are familiar.

Please submit your comments no later than Tuesday, November 10, 2009.

Use the space below for short comments. If significant comments are provided, please use agency letterhead and include the Nevada SAI number and comment due date for our reference.

Clearinghouse project archive

Questions? Reese Tietje, (775) 684-0213 or clearinghouse@state.nv.us

____No comment on this project _x___Proposal supported as written MKC016-1

AGENCY COMMENTS:

Any water used on the described lands should be provided by an established utility or under permit issued by the State Engineer's Office. All waters of the State belong to the public and may be appropriated for beneficial use pursuant to the provisions of Chapters 533 and 534 of the Nevada Revised Statutes (NRS), and not otherwise. Any water or monitor wells, or boreholes that may be located on either acquired or transferred lands are the ultimate responsibility of the owner of the property at the time of the transfer and must be plugged and abandoned as required in Chapter 534 of the Nevada Administrative Code. If artesian water is encountered in any well or borehole it shall be controlled as required in NRS § 534.060(3).

Signature: Robert K. Martinez, P.E.

Date: 10/7/2009

MKC017

RID	OT	S	RT	DT	IA	F	RI	CE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

NOV 16 2009

Hal Peterson, Middle Kyle Complex Project Manager
Spring Mountains National Recreation Area
4701 North Torrey Pines Drive
Las Vegas, Nevada 89130

Subject: Draft Environmental Impact Statement (DEIS) for the Middle Kyle Complex, Spring Mountains National Recreation Area, Humboldt-Toiyabe National Forest, Clark County, Nevada (CEQ# 20090332)

Dear Mr. Peterson:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. Our detailed comments are enclosed.

EPA commends the Forest Service effort to balance the multiple uses of the popular Middle Kyle Complex located in the Humboldt-Toiyabe National Forest. We acknowledge that the Project is a positive step in addressing resource impacts from recreational uses. Of special note is the proposal to prohibit dispersed camping within 300 feet on either side of Forest Service roads and trails, closure of unauthorized user created roads and trails in the project area and restoration of various abandoned areas to natural vegetative condition. MKC017-1

Based on our review, we have rated the DEIS as Environmental Concerns – Insufficient Information (EC-2) (see enclosed "*Summary of Rating Definitions*") due to our concerns regarding potential impacts to water quality, hydrology and aquatic resources, critical habitat and air quality. Additional information is also necessary to fully describe the Purpose and Need and monitoring and enforcement commitments. MKC017-2

While we support the Forest Service goal to meet desired future conditions and provide protection for sensitive species and ecosystems, we recommend the Forest Service modify the alternatives under consideration to further reduce impacts to air and water quality, critical habitat, and aquatic resources, and to minimize habitat fragmentation. MKC017-3 We also urge the Forest Service to describe and implement an aggressive and reliable monitoring and enforcement program. MKC017-4

MKC017

MKC017-5

We appreciate the opportunity to review this DEIS. When the FEIS is released for public review, please send one (1) hard copy to the address above (mail code: CED-2). If you have any questions, please contact me at (415) 972-3521 or contact Tom Plenys, the lead reviewer for this project. Tom can be reached at (415) 972-3238 or plenys.thomas@epa.gov.

Sincerely,

Kathleen Goforth, Manager
Environmental Review Office

Enclosure:
Summary of EPA Rating Definitions
Detailed Comments

cc: Edward Monnig, Forest Supervisor, Humboldt Toiyabe National Forest
Jed Botsford, Bureau of Land Management
Lewis Wallenmeyer, Clark County Department of Air Quality and Environmental Management
Roddy Shepard, Nevada Department of Wildlife

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

"Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

MKC017

EPA DETAILED DEIS COMMENTS FOR THE MIDDLE KYLE COMPLEX, SPRING MOUNTAINS NATIONAL RECREATION AREA, HUMBOLDT-TOIYABE NATIONAL FOREST, CLARK COUNTY, NEVADA, NOVEMBER 16, 2009

Purpose and Need

The Draft Environmental Impact Statement (DEIS) identifies three "Need-for-Action Statements" for the Project, including the need to provide new Spring Mountain National Recreation Area (SMNRA) recreation facilities and visitor services that a) respond to anticipated increased SMNRA recreation demands from population growth in Las Vegas and Clark County; b) respond to future types of public recreation activities and trends; c) direct recreation users to less congested areas of the SMNRA and into developed recreation sites; and d) are outside of upper Kyle, Lee, and Deer Creek Canyons to reduce natural resource impacts on major concentrations of plant and wildlife species of concern. MKC017-7

The DEIS does not conclusively demonstrate how the proposed construction and operation of a recreational complex on approximately 4,300 acres in Kyle Canyon meet the above Need Statement. For example, data are not provided that illustrate the need for the expanded infrastructure, nor how proposed actions address use levels and safety needs. Of specific concern are how new facilities may result in increased traffic and visitors that could result in cumulative watershed effects and may adversely affect sensitive aquatic resources and threatened species.

Recommendations:

- The Final EIS (FEIS) should provide specific examples and park use data, and incorporate references to demonstrate the need for the proposed recreation complex. For instance, include information on existing trail use, percentage of trails for different hiking abilities, current use of hiked-into terrain, demand for access to additional terrain, seasonal camping demand, and increases in vehicular traffic and off-highway vehicle (OHV) use. We recommend the FEIS also include an evaluation of the impacts from additional vehicular and OHV traffic, including an analysis during the seasons of poorest air quality. MKC017-8 MKC017-9

- The FEIS should include a cost comparison of the action alternatives and describe the implementation priority for the facilities, trail additions, modifications and closures, and other Project infrastructure. MKC017-10

The DEIS indicates that rapid population growth of Clark County, Nevada is exerting pressure on existing recreation facilities in the SMNRA (at p. 1-3). The DEIS improvements to this Middle Kyle Complex are considered necessary to provide for the existing and projected demand attributed to large-scale growth in the greater Las Vegas Area. We commend the Forest Service for including extensive projected growth studies as part of the DEIS. However, we note the current market projections discussion in Section 1.3 is based on the Clark County Department of Comprehensive Planning Study from 2008 and the Hutton study from 2005. In light of the major economic events since early 2008, the FEIS should include updated projections as a result of the recent economic downturn. MKC017-11

MKC017

For example, we note that the DEIS mentions that the 16,000 new home master plan at the intersection of SR 157 and US95 has been put on hold. The FEIS should fully discuss how future growth projections have been or could be significantly impacted by recent economic factors, such as the continued downturn in the housing market, the more recent credit crisis, and the sustained economic recession, which will likely have a slowing impact on growth in these areas as well as travel demand to and from Las Vegas. MKC017-11

Recommendation:

- Update all growth related projections to reflect the latest economic developments and visitor forecasts and update the evaluation of alternatives, as appropriate. The impact of these recent events on previous growth projections should be considered, and their relevance to the Project and future plans for the SMNRA discussed. Each of the alternatives analyzed should be considered in light of the most recent forecasts. MKC017-12

Integrate the Agency Direction and Guidance Documents into this Environmental Analysis MKC017-13

The DEIS references the Clark County Multiple Species Habitat Conservation Plan (HCP), the Conservation Agreement for the Spring Mountains National Recreation Area (CA), and the Spring Mountains National Recreation Area Landscape Assessment (LA). While the DEIS indicates that each of these documents provides guidelines for management of the SMNRA and development of the Proposed Action and alternatives, the DEIS does not provide a concise or tabulated description of the data and analyses relied upon in the DEIS, nor fully integrate these analyses into the analysis for the Project. The DEIS also indicates that the CA has expired and is in the process of being amended. The DEIS should describe the implications of the CA revisions and how the Project will conform to the modified CA expected in 2010.

Recommendation:

- The FEIS should provide a summary of the decisions and actions approved in the HCP, CA, and LA and describe how they relate to the Project. This summary should include any proposed actions; the direct, indirect, and cumulative environmental effects of these actions; and mitigation and monitoring commitments. We recommend including the Executive Summaries of these documents in an appendix in the FEIS.

Water Quality

As the designated water quality management agency under the Clean Water Act Section 208 Management Agency Agreement, the Forest Service is required to implement Best Management Practices (BMPs) and other measures to achieve full compliance with all applicable State water quality standards. Implementation of BMP measures alone does not necessarily ensure full compliance with State water quality standards. The DEIS indicates MKC017-14

that operation and use of the recreational facilities could also reduce water quality and productivity and cause accelerated erosion and subsequent sedimentation of downstream waters (at p. 3.1-14). The DEIS also indicates that implementation of BMPs and stormwater management practices will minimize these effects and no significant adverse impacts are anticipated (at p. 3.1-14). While we support the inclusion of the BMPs in the FEIS, additional management actions beyond BMPs may be required to achieve full compliance with all applicable water quality standards. MKC017-14

Additionally, the DEIS indicates that "no streams in the project area are listed as impaired pursuant to the Clean Water Act Section 303(d); however, the Las Vegas Wash from Telephone Line Road to the confluence of Las Vegas Wash with Lake Mead, of which these streams are tributaries, is listed as impaired or as needing further study for possible listing as an impaired water resource by the State of Nevada, as required by the Clean Water Act Section 303(d)" (at p. 3.1-13). The impairment status of the Las Vegas Wash should be clarified and further explained. Additionally, Section 3.1.4 on Hydrology does not analyze the Las Vegas Wash any further nor does the Section discuss the implications of a future listing as an impaired water. MKC017-15

Recommendations:

- The Final Environmental Impact Statement (FEIS) should describe water quality standards and BMPs for the project area, including standards for pathogens and Clean Water Act antidegradation requirements. Evaluate the Forest Service's ability to ensure full compliance with water quality standards through the use of BMPs and identify additional measures that may be necessary to achieve compliance. MKC017-16

- Discuss the implications of a future listing of the Las Vegas Wash as an impaired water resource and include specific measures within the EIS that could help protect the wash from further degradation as a result of the project. MKC017-17

- The FEIS should expand the evaluation of potential impacts to stream channels and the waters of the United States. For example, state the percentage of stream channels in the area that may be affected, and the significance of the potential impacts on those channels, whether these impacts may be in critical or vulnerable stream channel locations, and the ecological significance of these resources. Each table should clearly state the measurement units for the presented data. MKC017-18

The FEIS should discuss whether the proposed reconstructed and new campsites are within 50 feet of water, regardless of the site type, and whether they would contribute sediment and/or manure to surface water with significant local adverse effects. MKC017-19
Furthermore, the FEIS should disclose whether any stockholding sites would be located less than 50 feet from water, and whether they are contributing substances to water resulting in water quality concerns. These adverse water quality effects would be of significant concern given the use of surface waters by other wilderness users. MKC017-20

Recommendations:

- The Forest Service should work closely with pack and recreational livestock operators to address water quality impacts caused by any stockholding sites and campsites less than 50 feet from water. MKC017-21
- We recommend closure or relocation of campsite and stockholding areas with significant and observable adverse effects to water quality. MKC017-22

The DEIS does not describe existing environmental conditions at any current stations for pack and recreational livestock, although they are mentioned in the DEIS on pages 3.3-27 and 28. Nor does the DEIS evaluate potential environmental effects of pack and recreational livestock or the effect of commercial pack stock use authorizations on the environmental conditions at any pack stations. MKC017-23

Recommendation:

- The FEIS should include a description of existing conditions at current stations for pack and recreational livestock, especially those located on Forest Service land. Evaluate the potential environmental effects of action alternatives and use authorization on existing conditions. For example, describe existing conditions and potential effects of reduced or increased use authorization on water quality, meadow conditions, and threatened species habitat at pack station locations.

The DEIS does not appear to describe or address packstock watering practices which could contribute to water quality impacts. MKC017-24

Recommendation:

- The FEIS should describe packstock watering practices and the potential for environmental impacts to water quality, threatened species, fish and wildlife, and sensitive aquatic habitat. If potential impacts are likely, describe alternate stock management practices and mitigation measures to reduce these impacts.

The DEIS should describe any impact to water quality from campsites, eroded/incised trails, stockholding, and grazing areas. The DEIS should describe water quality monitoring and include quantitative data to support any assumptions. MKC017-25

Recommendation:

- The FEIS should describe current water quality monitoring, if any. EPA recommends implementing a monitoring program in areas with known moderate to severe water quality degradation and high use. If funding and staffing resources are limited, the Forest Service should consider a limited, one-time water quality sampling project to validate water quality assumptions and

determine if human health risks are present in drinking water sources (e.g. *E. coli*, *Giardia*, other bacterial pollutants). MKC017-25

Hydrology and Aquatic Resources

Hydrology MKC017-26

Natural washes perform a diversity of hydrologic and biogeochemical functions that directly affect the integrity and functional condition of higher-order waters downstream. Healthy ephemeral waters with characteristic plant communities control rates of sediment deposition and dissipate the energy associated with flood flows. Ephemeral washes also provide habitat for breeding, shelter, foraging, and movement of wildlife. Many plant populations are dependent on these aquatic ecosystems and are adapted to the unique conditions of these systems.

Reconstruction of the Kyle Canyon Campground is proposed along the Kyle Wash (at Figure 2-6). The FEIS should commit to the use of natural washes, in their present location and natural form, to the maximum extent practicable with the inclusion adequate natural buffers for flood control. The FEIS should identify how hydrological connectivity along the Project corridor supports the intent to utilize natural stream channels where they can provide adequate protection from flooding. The potential damage that would result from altered, flat-bottomed washes includes alterations to the hydrological functions that natural channels provide in arid ecosystems: adequate capacity for flood control, energy dissipation, and sediment movement, as well as impacts to valuable habitat for desert species. The FEIS should provide adequate hydrological modeling to demonstrate that downstream flows will not be disrupted due to proposed changes to any natural washes, the creation of wetlands, or the excavation of large amounts of sediment.

Recommendations:

- Commit to the use of natural washes, in their present location and natural form, to the maximum extent practicable with the inclusion of adequate natural buffers for flood control. MKC017-27
- Identify how hydrological connectivity along the Project corridor supports the intent to utilize natural stream channels where they can provide adequate protection from flooding. MKC017-28
- Provide adequate hydrological modeling to demonstrate that downstream flows will not be disrupted due to proposed changes to any natural washes, the creation of wetlands, or the excavation of large amounts of sediment. MKC017-29
- Identify where construction of the Project may provide for an opportunity to improve obstructed natural flows resulting from project construction. MKC017-30

Aquatic Resources

The purpose of the Clean Water Act is to restore and maintain the chemical, physical and biological integrity of waters of the United States (waters). These goals are MKC017-31

MKC017

MKC017-31

achieved, in part, by controlling discharges of dredged or fill material pursuant to EPA's *Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials* (40 CFR 230), promulgated pursuant to Section 404(b)(1) of the CWA (Guidelines). Fundamental to the Guidelines is the principle that dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that there is no less environmentally damaging practicable alternative that achieves the Applicant's project purpose. In addition, no discharge can be permitted if it will cause or contribute to significant degradation of waters.

The DEIS presents contradictory information as to the status of the jurisdictional determination for the Project. Section 3.7-17 indicates there are no wetlands within the project area under the jurisdiction of the U.S. Army Corps of Engineers (Corps) and there are no non-jurisdictional wetlands that would be adversely impacted from implementation of either action alternative. Section 3.7.7 indicates that coordination with Corps regarding the jurisdictional determination of Kyle Wash and Section 404 and 401 permitting requirements is ongoing and will be determined prior to publication of the FEIS.

The FEIS should include the Corps verification of the delineation of the extent of waters, including wetlands, on the Project site. The FEIS should provide sufficient information to discern the extent of impacts to waters.

Recommendations:

- The Forest Service should identify the location, extent, and functions and values of all jurisdictional wetlands within the project areas and potential impacts to these wetlands from the proposed project. MKC017-32

- The FEIS should establish measures that prevent adverse impacts to the hydrology and biology of wetlands and meadows. MKC017-33

MKC017-34

Pursuant to the Guidelines, the applicant bears the burden of clearly demonstrating that the preferred alternative is the least environmentally damaging practicable alternative (LEDPA) that achieves the overall project purpose, while not causing or contributing to significant degradation of the aquatic ecosystem. Identification of the LEDPA is achieved by performing an alternatives analysis that estimates the direct, indirect, and cumulative impacts to jurisdictional waters resulting from each alternative considered. Project alternatives that are not practicable and do not meet the project purpose are eliminated. The LEDPA is the remaining alternative with the fewest impacts to aquatic resources, so long as it does not have other significant adverse environmental consequences. Only when an analysis is correctly structured can the applicant and the permitting authority be assured that no discharge other than the practicable alternative with the least adverse impact on the aquatic ecosystem has been selected (40 CFR 230.10(a)). In addition, the applicant must clearly demonstrate that alternatives that do not result in the discharge of dredged or fill material in aquatic sites are either not practicable, or have other significant adverse environmental consequences.

MKC017

EPA offers the following recommendations to help facilitate compliance of the project with the Section 404 Guidelines, in the event it is determined that jurisdictional waters will be affected: MKC017-34

Recommendations:

- The FEIS should include an evaluation of the project alternatives in order to demonstrate the project's compliance with the 404(b)(1) Guidelines. The alternatives analysis should include a reasonable range of alternatives that meet the Project purpose while avoiding and minimizing damage to waters. If, under the proposed project, dredged or fill material would be discharged into waters of the U.S., the FEIS should discuss alternatives to avoid those discharges.

- If a discharge is permitted, the FEIS should discuss how potential impacts would be minimized and mitigated. This discussion should include: (a) acreage and habitat type of waters of the U.S. that would be created, restored, or preserved; (b) water sources to maintain the mitigation area; (c) a revegetation plan utilizing native plants; (d) maintenance and monitoring plans, including performance standards to determine mitigation success; (e) an Adaptive Management Plan; (f) the parties that would be ultimately responsible for the plan's success; and (g) contingency plans that would be enacted if the original plan fails. Mitigation should be implemented in advance of the impacts to avoid habitat losses due to the lag time between the occurrence of the impact and successful mitigation. MKC017-35

Air Quality

Although the DEIS reports in Section 3.1.1 that the Project will have no adverse operational or construction impacts to air quality, the document contains insufficient information to support this conclusion. While we recognize the DEIS references an Air Quality Specialist Report for the Middle Kyle Complex, the DEIS itself does not comprehensively assess the Project's operational and construction direct, indirect, or cumulative impacts to air quality. To address this insufficiency, the FEIS should include a complete description of potential impacts and commitments to reduce those impacts. In particular, EPA has concerns regarding: MKC017-36

1) the minimal mitigation measures to curb particulate matter (PM) and nitrogen oxides (NOx) emissions from construction equipment,
2) the absence of data describing additional vehicular traffic and resulting emissions from the Project, and
3) the lack of discussion and analysis of OHV and helipad use.

Emissions from diesel construction equipment, haul trucks, OHVs and other vehicles associated with this Project include PM, sulfur oxides, volatile organic compounds (VOCs), and NOx. VOCs and NOx are precursors to ozone. In March 2008, EPA further tightened the National Ambient Air Quality Standard (NAAQS) for ozone. Clark County is

currently within a non-attainment area for carbon monoxide (CO), PM_{10}, and 8-hour ozone. Note that the nonattainment boundaries do not follow the air basin or county boundaries and are different for each pollutant and area. The FEIS should include a discussion of the regional impacts of increased NOx and VOC emissions on the area's ability to attain the ozone standards. MKC017-36

The DEIS does not state whether there are existing visibility concerns caused by dust generated by motorized use, valleys subject to inversion conditions, or smoke from residential areas, dispersed camping, timber management activities, or wildfires. Direct effects of fugitive dust and smoke are reduced visibility on and adjacent to routes and increased levels of particulate matter less than 10 microns in diameter (PM_{10}), and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) which are human health concerns. We are concerned with the potential increase in ozone, fugitive dust, and smoke in vulnerable viewsheds and areas of high use which could have adverse impacts on smog levels, visibility, and human health. MKC017-37

Recommendations:

- The FEIS should include a discussion of the regional impacts of increased NOx and VOC emissions on the area's ability to attain the ozone standards MKC017-38
- The section for Air Quality should include a detailed description of conducted air quality analyses, including analysis of current and projected emissions from vehicular, OHV and helicopter usage, anticipated exceedences of standards, and mitigation measures to address these impacts. MKC017-39
- The FEIS should provide a description and evaluation of the potential visibility impacts from fugitive dust, ozone, and smoke in the project area, in addition to effects on nearby Class I airsheds. We recommend the evaluation include information on dust generated in motorized vehicle high-use areas, the presence and frequency of valley inversion conditions, and the extent of existing visibility concerns as a result of smog and smoke. MKC017-40

EPA commends the Forest Service for incorporating mitigation strategies to reduce or minimize fugitive dust emissions (at p. 2-33). However, in addition to a fugitive dust control plan, this Project should incorporate more stringent emission controls for PM and ozone precursors for construction-related activity. There are additional mitigation measures that can be considered and applied to reduce emissions. Under NEPA, "all relevant, reasonable mitigation measures that could improve the project are to be identified. Mitigation measures must be considered even for impacts that by themselves would not be considered significant" (see Council on Environmental Quality (CEQ), 1981, "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations"). MKC017-41

All applicable state and local requirements and the additional and/or revised measures listed below should be included in the FEIS and ROD in order to reduce impacts associated with emissions of PM and other toxics from construction-related activities:

Recommendations:

Due to the serious nature of the PM_{10} and 8-hour ozone conditions in Clark County, EPA recommends that the best available control measures (BACM) for these pollutants be implemented at all times. At a minimum, these measures should be incorporated into the ROD. We recommend that all applicable requirements under local rules and the following additional measures be incorporated into a Construction Emissions Mitigation Plan and that the FEIS and ROD incorporate the Construction Emissions Mitigation Plan. MKC017-42

Fugitive Dust Source Controls:

- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate. This applies to both inactive and active sites, during workdays, weekends, holidays, and windy conditions.
- Install wind fencing, and phase grading operations, where appropriate, and operate water trucks for stabilization of surfaces under windy conditions. MKC017-43
- When hauling material and operating non-earthmoving equipment, prevent spillage, and limit speeds to 15 miles per hour (mph). Limit speed of earth-moving equipment to 10 mph. MKC017-44

Mobile and Stationary Source Controls:

- Reduce use, trips, and unnecessary idling from heavy equipment. MKC017-45
- Maintain and tune engines per manufacturer's specifications to perform at California Air Resources Board (CARB) and/or EPA certification, where applicable, levels and to perform at verified standards applicable to retrofit technologies. Employ periodic, unscheduled inspections to limit unnecessary idling and to ensure that construction equipment is properly maintained, tuned, and modified consistent with established specifications. CARB has a number of mobile source anti-idling requirements. See their website at: http://www.arb.ca.gov/msprog/truck-idling/truck-idling.htm MKC017-46
- Prohibit any tampering with engines and require continuing adherence to manufacturer's recommendations MKC017-47
- If practicable, lease new, clean equipment meeting the most stringent of applicable Federal or State Standards. In general, only Tier 2 or newer engines should be employed in the construction phase. MKC017-48
- Utilize EPA-registered particulate traps and other appropriate controls where suitable, to reduce emissions of diesel particulate matter and other pollutants at the construction site. MKC017-49

Administrative controls:

- Identify all commitments to reduce construction emissions and incorporate these reductions into the air quality analysis to reflect MKC017-50

additional air quality improvements that would result from adopting specific air quality measures. MKC017-50

- Identify where implementation of mitigation measures is rejected based on economic infeasibility. MKC017-51
- Prepare an inventory of all equipment prior to construction, and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking. (Suitability of control devices is based on: whether there is reduced normal availability of the construction equipment due to increased downtime and/or power output, whether there may be significant damage caused to the construction equipment engine, or whether there may be a significant risk to nearby workers or the public.) Meet CARB diesel fuel requirement for off-road and on-highway (i.e., 15 ppm), and where appropriate use alternative fuels such as natural gas and electric. MKC017-52
- Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow. MKC017-53
- Identify sensitive receptors in the project area, such as children, elderly, and infirm, and specify the means by which you will minimize impacts to these populations. For example, locate construction equipment and staging zones away from sensitive receptors and fresh air intakes to buildings and air conditioners. MKC017-54

If specific mitigation measures are used for purposes of determining total emission levels, a firm commitment to implementing the mitigation measures should be included in the FEIS. MKC017-55

Recommendation:

- The FEIS should identify and commit to specific mitigation measures or specific emission reduction target levels not only for fugitive dust emissions, but also for exhaust emissions.

Wildlife Impacts

Habitat Fragmentation

The DEIS indicates that potential wildlife habitat fragmentation may occur in areas that are currently undeveloped – north of SR 157 and along the bench south of SR 157 (at p. 3.3-2). The FEIS should address wildlife movement impacts associated with the proposal and present mitigating measures to maintain wildlife movement at specific locations in the Project area, especially where wildlife movement already occurs. MKC017-56 Monitoring to determine where wildlife currently crossover the existing roadways is critical to determining where the Forest Service should commit to wildlife movement features within the design of the proposed project. In addition, proposed stream and ephemeral wash crossings should be designed to maintain or improve existing wildlife passages, as appropriate. MKC017-57

EPA provides the following recommendations for the FEIS. Much of the information identified below will contribute to a better understanding of the measures needed to reduce impacts to biological resources.

Recommendations:

- The FEIS should include a commitment to incorporate into the design of the Project specific wildlife crossing features that are developed to support key movement patterns for each species. Information such as roadkill data can inform placement of larger wildlife movement structures. Monitoring of wildlife usage of existing roadways is important for designing how the Project can incorporate design measures to maintain existing movement. MKC017-58

- Identify the connections that would likely remain after construction of the Project and highlight these areas as "connectivity zones" for protection and preservation. In the FEIS, identify specific commitments for preservation of these corridors through mitigation measures and cooperative agreements. MKC017-59

- As applicable, disclose how fencing in the Project area will affect wildlife movement and discuss how fencing will be integrated with any identified "connectivity zones". MKC017-60

Critical Habitat

The proposed project could have direct effects on the habitat of the Spring Mountains acastus checkerspot butterfly. The DEIS identified the potential effects on butterfly habitat as a significant issue in the DEIS due to construction of the Kyle Canyon Wash Trail and utility right-of-ways. Section 3.7.4 ultimately identifies the permanent acreage loss of butterfly habitat as irreversible and irretrievable. MKC017-61

Proposed designs for the Project should avoid and minimize impacts to all federally threatened and endangered species, as well as Forest Service species of concern and State species of concern. Any mitigation measures that resulted from consultation with the US Fish and Wildlife Service to protect sensitive biological resources should be included in the FEIS and, ultimately, the ROD. While the DEIS describes mitigation measures for potential impacts to sensitive species, it does not provide a clear commitment to implement these measures. The FEIS should also clearly articulate under which alternatives sensitive biological resources would be least impacted and to what extent impacts can be mitigated.

Recommendations:

- A clear commitment to implement mitigation measures to avoid and minimize adverse effects to the habitat of the Spring Mountains acastus checkerspot butterfly and other sensitive species should be made in the FEIS. These measures should include the identification of sensitive habitats and seasons, a

MKC017-61

user education program, pet restrictions, and monitoring and enforcement of trail use and pet restrictions.

- Mitigation measures that resulted from consultation with the US Fish and Wildlife Service to protect sensitive biological resources should be included in the FEIS and, ultimately, the ROD

Monitoring and Enforcement

MKC017-62

It is important that wildlife protection, vegetation management, and erosion control goals be achieved to minimize the adverse effects of the proposed Project. While we recognize the monitoring and implementation strategy described with respect to invasive and non-invasive species, we believe the public and decision makers would benefit if this strategy is expanded to include specific information on funding, monitoring and enforcement criteria, thresholds, and priorities.

Recommendation:

- We recommend development of a detailed Monitoring and Enforcement Strategy. Such a Strategy should include specific information on the monitoring and enforcement program priorities, focus areas (e.g., issues, specific locations), personnel needs, costs, and funding sources. We recommend the FEIS demonstrate that the proposed monitoring and enforcement strategy is adequate to assure that motorized vehicle use will not violate access restrictions or exacerbate already identified road-related resource problems. We recommend the Monitoring and Enforcement Strategy be periodically updated (e.g., annually or biennially).

RID OT S RT DT IA F RI CE

ALLEN BIAGGI, *Director*
Department of Conservation
And Natural Resources

JIM GIBBONS
Governor

PETE ANDERSON
State Forester Firewarden

STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

NEVADA DIVISION OF FORESTRY

2478 Fairview Drive
Carson City, Nevada 89701
Phone (775) 684-2500 Fax (775) 684-2570

November 16, 2009

Hal Peterson, PE
Middle Kyle Complex Project Manager
Spring Mountains National Recreation Area
4701 North Torrey Pines
Las Vegas, NV 89130

Dear Mr. Peterson,

In reference to an email sent to Mark Blankensop regarding Nevada Division of Forestry's desire to locate our fire apparatus in the proposed Middle Kyle Canyon Facility. At this time we have evaluated the proposal and have determined that stationing our Type 1 and Type 3 apparatus at this location does not meet our response times to Rainbow, Old Town and Echo subdivisions. Thank you for considering the Division in your plans. MKC018-1

Sincerely,

Pete Anderson
State Forester Firewarden

cc: Mark Blankensop
Mike Dondero

RID	OT	S	RT	DT	IA	F	RI	CE

MKC020

Hal Peterson, Middle Kyle Complex Project Manager
Spring Mountains National Recreation Area
4701 N. Torrey Pines Dr.
Las Vegas, NV 89130-2301

MiddleKyleComplex@fs.fed.us

November 25, 2009

RE: Middle Kyle Complex Draft EIS

Dear Mr. Peterson,

Thank you for the opportunity to comment on the Draft EIS for the Middle Kyle Complex development plan. I have several concerns.

MKC020-1

I recognize the concerns the Forest Service has with the visitor numbers in upper Kyle Canyon and the impacs that is having on the resources in that area and support the need to address that problem. However, I am concerned that the plan to create a new center of activity south of Highway 157 and east of the junction with Highway 158 will not be successful as a destination for visitors because it lacks the key factors that attract visitors during the summer months, namely large trees and shade. Provision of artificial shade structures will help but is not much of a substitute for a forest setting under tall Ponderosa Pines. The commercial style campground proposed in this area(middle Kyle Canyon) would require extensive plantings of fast growing trees (with active irrigation system) to be attractive in the short term and then would seem just like another KOA facility rather than a Forest Service campground. The emphasis on providing facilities for large motorhomes and trailers at the commercial style campground would seem to be geared toward a demographic that is not really interested in a "forest type experience", but rather a place to park with entertainment facilities. It is not clear to me that the goal of diverting existing visitors away from the overcrowded area of upper Kyle Canyon will be accomplished by the planned campground and picnic facility at the middle Kyle Canyon site.

MKC020-2

The draft EIS indicates that the entire proposed project will require almost 1000 acres of disturbance, much of it temporary but really doesn't address how that area of temporary disturbance will be rehabilitated. Given that the area under discussion is semi-arid in character natural recovery from disturbance is quite slow. It would be helpful to see some concrete plans for rehabilitating disturbed areas with appropriate native plants.

MKC020-3

An important part of the planning effort involves new or re-aligned trails. While it is understandable that planners desire to accommodate all likely users mountain bikes are not compatible with either pedestrians or equestrians, especially on steep trails where bicycles travel up to ten times faster than either horses or pedestrians. A significant portion of mountain bike users desire to have a "challenging" trail system with some fast downhill sections. These trails are not sustainable unless paved, at which point they are just narrow roads. It is my understanding that the primary mission of the Forest Service is resource protection with recreation facilities and uses being secondary and needing to

be compatible with the goal of resource protection. Careful attention needs to be given to safety concerns when creating multi-use trail systems. MKC020-3

The planning document indicates plans for a "put and take" fishing pond. In the arid Spring Mountains, where surface water is a rare commodity, this seems to be a bit out of place and more appropriate for a commercial entertainment facility than a Forest Service visitor center and campground/day use facility. MKC020-4

Figure 1-4 shows the "La Madre WSA" on the area map. That area was designated the La Madre Wilderness Area by Congress in 2002. MKC020-5

The Fletcher Canyon trail is shown as a combined pedestrian/equestrian trail. With no connection to other trails, a trail length of only about a mile and limited parking facilities for horse trailers this doesn't make a lot of sense. The upper portion of Fletcher Canyon is a slot canyon with hardly enough room for a horse to turn around. Pedestrian only would be more appropriate for this trail. MKC020-6

Figure 2-3 shows an eight foot wide paved trail between the Kyle Canyon Campground and the Middle Kyle area. If this is intended to accommodate both bicycles and pedestrians the speed differential between the two may pose a hazard to both user types unless the trail is striped and clearly marked which side is for pedestrians and which for bicycles. MKC020-7

The disc-golf area near the commercial style campground seems a bit out place and will be problematic in terms of maintaining a native plant community in that area. Native grasses don't withstand foot traffic very well and shrubs are not appreciated by the users. MKC020-8

The EIS states that a biomass heating and cooling system will be used to maintain comfortable temperatures in the visitor center. Biomass systems are effective for providing heat but rather inefficient for cooling. In that area a below ground heat sink for a high-efficiency conventional AC system would be a better option. MKC020-9

Sincerely,

John E, Hiatt
8180 Placid Street
Las Vegas, NV 89123
702-361-1171

Appendix A2

Response to Public Comments

Appendix A2

Response to Public Comment

Introduction

Table A2-1 presents Forest Service responses to the public comments received during the public review period on the Draft Environmental Impact Statement (DEIS) for the proposed project. Individual comments received and Forest Service responses in Table A2-1 are organized by letter number and comment number. Copies of the comment letters are included in Appendix A1.

Table A2-1. Forest Service Response to Comments on the Middle Kyle Complex Draft Environmental Impact Statement

Letter Number	Comment Number	Name and Affiliation	Public or Agency Comment	Forest Service Response
MKC001	1	Joe Zogbi, General Public	[Individual] Questioned if OHV use would be allowed in the valley bottom area (concern was related to noise near his condo property).	Off-highway vehicle (OHV) use will not be allowed in the village valley area.
MKC001	2	Joe Zogbi, General Public	[Individual] Asked where proposed helipads were located (concern was related to noise from landing/take-off, flight frequency and flight path relative to his property location).	Proposed helipad locations are shown on Figures 1-3 and 2-4 of the Final Environmental Impact Statement (FEIS). The helipads are included in the alternatives primarily for emergency responses (e.g., wildfires). Helicopter flight frequency is not expected to change substantially from existing use levels.
MKC002	1	Kathy Ujifusa, General Public	[Individual] Expressed concern related to equestrian access to Fletcher Canyon trail network she supports the trail connection from north Telephone Canyon area to Fletcher Trails via SR 158 highway crossing (Proposed Action). Desires parking access for large horse trailers. Supports equestrian campground in the Proposed Action.	The decision does not include a trail connection from north Telephone Canyon area to the Fletcher Canyon trails across State Route (SR) 158. We believe that it is not safe to have a designated equestrian crossing on this stretch of highway. The decision does include parking for large horse trailers at the Telephone Canyon Trailhead. The decision does not include an equestrian campground because the trail mileage in the project area is not sufficient to support the need for an overnight equestrian campground. However, we do recognize the need for a developed equestrian campground on the Spring Mountains National Recreation Area (SMNRA) and we are exploring options.
MKC002	2	Kathy Ujifusa, General Public	[Individual] Does not support the idea of dispersed camping closures in Blue Tree area (at existing group use area).	See response to MKC012 comment 3.

Letter Number	Comment Number	Name and Affiliation	Public or Agency Comment	Forest Service Response
MKC003	1	Joe Zogbi, General Public	[Individual] Expressed concern about "echo effect" from valley area adjacent to his condo property. States that sounds, even conversations, from the valley area carry up to the condominiums and disturb the peace and quiet. Specifically, he was concerned about plans for the picnic space in the valley and the group picnic areas in the village as the larger groups may create more noise.	Development of proposed facilities in the Village and Valley areas are likely to increase noise levels above current levels, especially during daylight hours in the peak season. Proposed facilities in this area are day-use facilities that will have limited hours of operation (i.e., not 24-hour facilities). The decision identifies a lower scale of development and is likely to have less noise potential.
MKC003	2	Joe Zogbi, General Public	He [Individual] suggested if a snow play area was developed in the valley that it be "aimed to the south" to minimize the valley echo effect.	The decision does not include a designated snow play area.
MKC003	3	Joe Zogbi, General Public	He [Individual] expressed concern about traffic congestion on SR 157 from RV and other vehicles entering the picnic/camping areas backing up traffic on the highway during busy use periods. He felt that large RVs might have difficulty negotiating the roundabouts and suggested that we [Forest Service] install traffic signals at the main intersections.	We are working with Nevada Department of Transportation (NDOT) to design SR 157 improvements that will minimize traffic congestion and we will consider recreation vehicles (RVs) and other large vehicles when designing intersections or roundabouts.
MKC004	1	Ed Dodrill, Southern Nevada Regional Trails Partnership	It seems evident that going into this project the Forest Service would know that building facilities of any kind would disturb the land. Yet, throughout the document it is pointed out that the Forest Service, at least those who manage this portion, do not want to disturb the land. If so, why was this project initiated? We were told at the public scoping meetings that the USFS wanted to create a place to draw in visitors to Mount Charleston and provide a satisfactory experience that would keep them from continuing to the top of the mountain where vehicular and pedestrian traffic has become overwhelming.	We realize that there will be effects from the construction of new facilities. The purpose of the Environmental Impact Statement (EIS) is to disclose those potential effects to the public and the decision maker. We are proposing mitigation to lessen impacts to the extent practicable. While there is a need for these facilities to draw visitors from the more sensitive upper canyon areas, we strive to accomplish this objective in an environmentally responsible manner.

Letter Number	Comment Number	Name and Affiliation	Public or Agency Comment	Forest Service Response
MKC004	2	Ed Dodrill, Southern Nevada Regional Trails Partnership	At several points in the document it is noted that State Highway 157 and 158 are not under the jurisdiction of the Forest Service but under the jurisdiction of the Nevada Department of Transportation. I find it irresponsible on the part of the USFS that the Nevada Department of Transportation was not asked to join this project and provide guidance and expertise because the highway is the only link to this area unless someone plans to hike bicycle or ride a horse up there from Las Vegas.	We have been in communication with NDOT throughout the project, and NDOT has provided guidance and expertise. They were asked to be a cooperating agency early on for this project and determined they could coordinate the transportation needs of the area without adopting the legal status of "cooperating agency." The reason the EIS states that we do not have jurisdiction over the state highways is to disclose that we cannot propose actions or make decisions regarding the management of these highways.
MKC004	3	Ed Dodrill, Southern Nevada Regional Trails Partnership	Because NDOT [Nevada Department of Transportation] was not part of the process they have no idea of the problems associated with Mount Charleston visitor traffic and the negative impact it is creating. NDOT also has not been asked to offer suggestions, including expanding the highway [state highway 157 and 158] or creating an exit route from the Mount Charleston area working with the Forest Service to solve the problems.	NDOT has been involved and the department is aware of the problems. A joint study funded by the Federal Highway Administration and in cooperation with the U.S. Forest Service (Forest Service), NDOT, Regional Transportation Commission of Southern Nevada, Clark County, Nye County, and Las Vegas Metropolitan Police Department assessed transportation issues on the SMNRA. This study was completed in 2005 and investigated the topics you identified. Recommendations were identified in that report, of which NDOT has implemented several.
MKC004	4	Ed Dodrill, Southern Nevada Regional Trails Partnership	Throughout the statement projects are eliminated because of costs. Since nobody on Earth expects this project to be completed within the next decade, it would be best to leave important and well-needed facilities in the project to be completed at such time as funds are available. Should the financial situation change in the next 20 years or so, it would require a brand new process to include these amenities. I see no expiration date on this document.	Because of the large capital costs associated with this project, it is expected to occur in phases over a period of years. Generally speaking the life of a National Environmental Policy Act (NEPA) decision is about 5 years, after which time the line officer must consider if conditions have changed substantially to warrant additional analysis before implementing later phases. The FEIS and Record of Decision do not identify an expiration date.

Letter Number	Comment Number	Name and Affiliation	Public or Agency Comment	Forest Service Response
MKC004	5	Ed Dodrill, Southern Nevada Regional Trails Partnership	It is suggested that the much needed equestrian campground be eliminated. Weeks of temperatures above 100 degrees this past summer, makes the nearby availability of a place with cooler temperatures for recreation greatly needed. It seems an increase in such amenities is needed, not a reduction. The equestrian campground, according to the equestrians who attended the scoping meetings, needs no facilities. While providing a place for horse owners to recreate, the Forest Service also adds to visitor enjoyment. The horses are part of the experience of visiting the mountain and people frequently stop to express their delight in seeing the horses.	We agree that there is a need and market demand for an equestrian campground on the SMNRA. Due to the lack of a sufficient equestrian trail network in the project area to warrant an overnight equestrian facility, we will investigate a more appropriate location on the SMNRA for this facility. We agree that amenities at an equestrian campground could be minimal.
MKC004	6	Ed Dodrill, Southern Nevada Regional Trails Partnership	While acknowledging that visitor traffic to the Mount Charleston area is expected to increase, the document calls for cutting back a great number of amenities.	This is related to our ability to provide for the financial operation and maintenance for the scale of facilities constructed. While lesser amenities than proposed, the Middle Kyle Complex would still provide more than what is currently available.
MKC004	7	Ed Dodrill, Southern Nevada Regional Trails Partnership	On page ES-11 it is mentioned that a commercial campground would be visible from SR 158. Plant trees to hide it, redesign it and farm it out to a commercial campground operator to generate more funds to spend on this project.	We agree with your suggestions. Planting trees and having aesthetic design will lessen the visual impacts, but the campground will still be visible from SR 158. Our intent is to permit operation of the campground to commercial operators to generate funds and lessen the amount of Forest Service funds needed to construct and operate the campground.

Letter Number	Comment Number	Name and Affiliation	Public or Agency Comment	Forest Service Response
MKC004 8		Ed Dodrill, Southern Nevada Regional Trails Partnership	On page ES-10 it is stated, "A general downsizing of recreation facilities would reduce the extent of the associated landscape alterations." A ten-year old could have figured that out. Just think of how protected the landscape would be if the recreation facilities were eliminated, or closed to the public. This sentence shows you are not being realistic. If you want more people to spend time in this area you will get more "associated landscape alterations," but fewer at the critical top of the mountain.	You are correct. All projects have tradeoffs. The No Action Alternative would have the least amount of landscape alteration but would not meet the purpose and need for the project, including the need to reduce recreation impacts at “the critical top of the mountain”.
MKC004 9		Ed Dodrill, Southern Nevada Regional Trails Partnership	The plan, as stated, does not reflect what the public said they wanted. And the Forest Service should understand they are here to serve the public. There is much in the plan that is good, but too often the cutting back and eliminating amenities that are needed does not show a concern for the people served by this segment of the National Forest.	You are correct that our decision reflects a smaller scale project than what was originally proposed. The original proposal, i.e., the Proposed Action, represents the outcome of several public meetings. When making the final decision we consider not only what the public wanted, but also the environmental impacts and the financial implications of the decision. Our decision to move forward with smaller-scaled facilities is a reflection of these considerations.
MKC005	1	Jim Mesalic, General Public	I am a strong supporter of the projects in Kyle Canyon and Lee Canyon. Please proceed with construction.	Thank you for your support.
MKC006	1	Lewis Wallenmeyer, Clark County Dept. of Air Quality and Environmental Management	The DAQEM [Department of Air Quality and Environmental Management] Air Program understands that the U.S. Forest Service intends to improve the recreational services at the Middle Kyle Complex and offers the following recommendation: The annual National Ambient Air Quality Standard for particulate matter with an aerodynamic diameter of less than 10 microns (PM10) has been revoked. Any references to that standard should be removed because it is no longer enforced.	References to annual particulate matter $(PM)_{10}$ standards were removed from the specialist report and are not included in the FEIS. The most current National Ambient Air Quality Standards (NAAQS) table obtained from http://www.epa.gov/air/criteria.html was included in the Air Quality Specialist Report.

Letter Number	Comment Number	Name and Affiliation	Public or Agency Comment	Forest Service Response
MKC006	2	Lewis Wallenmeyer, Clark County Dept. of Air Quality and Environmental Management	The DAQEM Air Program understands that the U.S. Forest Service intends to improve the recreational services at the Middle Kyle Complex and offers the following recommendation: The report states that Clark County is a serious nonattainment area for ozone. However, the U.S. Court of Appeals for the District of Columbia Circuit vacated Subpart 1 of the Clean Air Act; therefore, Clark County currently has no formal ozone classification. The statement should be corrected to reflect this status.	The specialist report was changed to reflect the following attainment/nonattainment statuses: CO - Serious nonattainment; O_3 – Nonattainment for the 1997 8-hour, 80 parts per billion (ppb) standard, but currently unclassified due to the U.S. Court of Appeals for the District of Columbia Circuit decision vacating Subpart 1 of the Clean Air Act. PM_{10} – Serious nonattainment for the 24-hour standard $PM_{2.5}$ – Unclassified, presumed attainment The most current NAAQS table obtained from http://www.epa.gov/air/criteria.html was included in the Air Quality Specialist Report.
MKC006	3	Lewis Wallenmeyer, Clark County Dept. of Air Quality and Environmental Management	The DAQEM Air Program understands that the U.S. Forest Service intends to improve the recreational services at the Middle Kyle Complex and offers the following recommendation: Currently, Clark County is in attainment for PM2.5. The report's "Air Quality Attainment Status" section states: "Clark County has recommended the region should be designated as a nonattainment area." In a letter dated August 18, 2008, the U.S. Environmental Protection Agency concurred with the recommendation by Clark County and the Nevada Division of Environmental Protection (NDEP) that all areas of the state meet the PM2.5 standard.	The specialist report was changed to reflect the following attainment / nonattainment statuses: CO - Serious nonattainment; O_3 – Nonattainment for the 1997 8-hour, 80 ppb standard, but currently unclassified due to the U.S. Court of Appeals for the District of Columbia Circuit decision vacating Subpart 1 of the Clean Air Act. PM_{10} – Serious nonattainment for the 24-hour standard $PM_{2.5}$ – Unclassified, presumed attainment The most current NAAQS table obtained from http://www.epa.gov/air/criteria.html was included in the Air Quality section of the specialist report.

Letter Number	Comment Number	Name and Affiliation	Public or Agency Comment	Forest Service Response
MKC006	4	Lewis Wallenmeyer, Clark County Dept. of Air Quality and Environmental Management	The DAQEM Air Program understands that the U.S. Forest Service intends to improve the recreational services at the Middle Kyle Complex and offers the following recommendation: Pursuant to Section 176(c) of the Clean Air Act, federally supported highway and transit project activities must comply with transportation conformity requirements. The improvements proposed for State Highway 157 should be evaluated for transportation conformity applicability.	The Forest Service considered the SR 157 proposed improvements for conformity applicability and made the determination to include the SR 157 improvements in the general conformity analysis for the entire project. We determined that because of the small scale of construction associated with the SR 157 (several hundred feet of highway widening, lane enhancement, and intersection improvement) the emissions are relatively negligible; however, they remain relevant in the larger context of the project as a whole.
MKC006	5	Lewis Wallenmeyer, Clark County Dept. of Air Quality and Environmental Management	The DAQEM Water Quality Planning Section has reviewed the proposed project, located within Hydrographic Basin 212 of Clark County, Nevada, for adherence to the Clean Water Act and Clark County codes and regulations, and offers the following suggestion: The project should adhere to the recommendations and provisions of the Clark County 208 Area-Wide Water Quality Management Plan (WQMP). We recommend continuous contact with the DAQEM Water Quality Team to ensure that wastewater treatment data is reviewed for suitability with the approved WQMP and that any WQMP amendments are completed before infrastructure construction.	The following statement was included in Draft Environmental Impact Statement (DEIS) Table 2-4 as design criteria WA5: "Coordinate with Clark County Department of Air Quality and Environmental Management for project compliance with Clark County 208 Area-Wide Water Quality Management Plan recommendations and provisions throughout project design and implementation phases as appropriate." These design criteria are also included in the FEIS and Record of Decision.

Letter Number	Comment Number	Name and Affiliation	Public or Agency Comment	Forest Service Response
MKC006	6	Lewis Wallenmeyer, Clark County Dept. of Air Quality and Environmental Management	The DAQEM [Department of Air Quality and Environmental Management] Water Quality Planning Section has reviewed the proposed project, located within Hydrographic Basin 212 of Clark County, Nevada, for adherence to the Clean Water Act and Clark County codes and regulations, and offers the following suggestion: The project should adhere to Chapter 24.40 of the Clark County Code, "Storm Sewer System Discharge."	The following statement was included in DEIS Table 2-4 as design criteria WA4: "Design, construct and maintain facilities in compliance with applicable sections of Chapter 24.40 of the Clark County Code, "Storm Sewer System Discharge". Coordinate with Clark County Department of Air Quality and Environmental Management as appropriate." These design criteria are also included in the FEIS and Record of Decision.
MKC006	7	Lewis Wallenmeyer, Clark County Dept. of Air Quality and Environmental Management	The DAQEM Water Quality Planning Section has reviewed the proposed project, located within Hydrographic Basin 212 of Clark County, Nevada, for adherence to the Clean Water Act and Clark County codes and regulations, and offers the following suggestion: The project should use low-impact development design criteria to minimize the erosive and pollution potential of storm water and surface water flow.	The following statement was included in DEIS Table 2-4 as design criteria WA4: "Follow low-impact development (LID) design practices for stormwater management that emphasize the use of naturally occurring and constructed features to reduce the impacts of increased flow rates and volumes associated with increases in impervious area." These design criteria are also included in the FEIS and Record of Decision.
MKC006	8	Lewis Wallenmeyer, Clark County Dept. of Air Quality and Environmental Management	The DAQEM Water Quality Planning Section has reviewed the proposed project, located within Hydrographic Basin 212 of Clark County, Nevada, for adherence to the Clean Water Act and Clark County codes and regulations, and offers the following suggestion: If the proposed facility and Standard Industrial Code require, based on 40 CFR 122.26, the owner/operator must file a Construction Notice of Intent for storm water discharge during the construction phase with the Nevada Division of Environmental Protection and prepare a storm water pollution prevention plan.	Chapter 1 of the FEIS identifies permits and required compliance for this project which includes: "Nevada Division of Environmental Protection National Pollutant Discharge and Elimination System General Stormwater Permit for Construction." Compliance with this permit will address your stated concern.

Letter Number	Comment Number	Name and Affiliation	Public or Agency Comment	Forest Service Response
MKC006	9	Lewis Wallenmeyer, Clark County Dept. of Air Quality and Environmental Management	The DAQEM Air Program understands that the U.S. Forest Service intends to improve the recreational services at the Middle Kyle Complex and offers the following recommendation: In Table 2.3 of the "Water" section, please add the following statement: "Implement site-appropriate best management practices found in the June 2008 Nevada Contractors Field Guide for Construction Site Best Management Practices." Implementation of principles found in the January 2009 Las Vegas Valley Construction Site Best Management Practices Guidance Manual is also recommended.	The following statements were included in DEIS Table 2-4 as design criteria WA1: "Implement site-appropriate best management practices found in the June 2008 Nevada Contractors Field Guide for Construction Site Best Management Practices" and "Implement appropriate principles in the January 2009 Las Vegas Valley Construction Site Best Management Practices Guidance Manual". These design criteria are also included in the FEIS and Record of Decision.
MKC007	1	D. Bradford Hardenbrook, State of Nevada, Department of Wildlife	As a cooperating agency, we noted the Proposed Action has become considerably scaled down from the original approach. Consequently, we are sorry to see several concerns for wildlife resources that were raised during initial scoping and subsequent project team meetings remain inadequately addressed.	The Forest Service has considered the comments and wildlife resource concerns provided by Nevada Department of Wildlife (NDOW) (through the public scoping process and as a cooperating agency) in the development of project alternatives, design criteria, and the preferred alternative in the FEIS.
MKC007	2	D. Bradford Hardenbrook, State of Nevada, Department of Wildlife	Generally, accommodating a larger population of park patrons within the planning area's already developed and highly visited canyons will result in corresponding increases in differential influences and pressures on important natural features and resource values found there. NDOW [Nevada Department of Wildlife] understands the project's SNPLMA funding disallows the U.S. Forest Service budgeting for staff to undertake education, enforcement presence, and disperse resource monitoring functions. And the Forest Service has made prediction of future incursions by planned and unplanned dispersed camping and user-created thoroughfares. Regardless of present funding limitations, a stronger commitment displayed by recognizing and	We agree that additional staffing will be necessary. However, staffing and enforcement levels are influenced by available funding and are administrative actions not required for disclosure in the EIS. This project focuses recreation activities to a specific area and eliminates unregulated dispersed camping. This should allow available law enforcement officers and other Forest Service personnel to focus their attention on the Middle Kyle Complex area and other SMNRA high use areas.

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			detailing maintenance and operations support needs for the enhanced visitor environment including hired personnel tasked with ensuring compliance, education, and conservation duties would have benefited the Complex DEIS, especially in cumulative effects analyses. Relevance of the business model as referred to in Appendix A as a response to many questions of this nature seems to have fallen short of providing clear plan for acquiring more eyes and cars on the SMNRA.	
MKC007	3	D. Bradford Hardenbrook, State of Nevada, Department of Wildlife	It was our understanding that many unauthorized, user-created roads, trails and other thoroughfares would be closed and rehabilitated by virtue of the Complex project. This is stated in the 3rd paragraph on Page I-26 under "Proposed Action," however expectation for an overall reduction of roads and trails contributing to net impact reductions to wildlife habitat became less optimistic. On pages 3.1-6 through 3.1-8 in Chapter 3 under "Affected Environment—Non-native Invasive Species" it clearly states that the proposed action would result in 9.7 miles of designated roads and trails per square mile, and a total length in roads and trails of 48 miles. The Market Supported alternative would result in 8.4 miles per square mile and a total length of 44 miles of Forest Service designated roads and trails. Both of these are increases over the existing conditions of 7.2 miles per square mile and 22 total miles of roads and trails. It cannot be over emphasized that increased recreation without obvious reductions resource impacts and a corresponding increase in law enforcement and resource monitoring presence translates to increases in disturbance and fragmentation of habitat, establishment of new user-created thoroughfares, and harassment of wildlife by, for example, uncontrolled pets.	The increase in roads is associated with the proposed picnic, camping, visitor center and administrative facilities. This includes campground loop roads, access to parking, and trailheads. This increase in roads is condensed into smaller areas associated with the developed sites; however, the closure of unauthorized routes and unregulated dispersed camping are expected to have an overall beneficial effect on SMNRA wildlife species.

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MKC007	4	D. Bradford Hardenbrook, State of Nevada, Department of Wildlife	Increased capacity for camping facilities and the corresponding increase in the number of users will result in increased wood cutting and collecting of down and dead woody materials, which is critical to the survival of the Palmer's chipmunk and other species in the upper portions of the Complex. Design criteria do not specify a remedy for this anticipated impact. Although at least some administrative discretion would seem available to the Forest Service as indicated in the paragraph in the center of page ES-7 concerning dispersed camping. Perhaps changing one word in the first sentence of this paragraph from "may" to "will" would make a difference.	The DEIS identifies the alternatives and proposed activities generally prefaced with the word “may” to represent the predecisional nature of the disclosure. The Record of Decision identifies the Selected Alternative in definitive terms, including the use of the term “will.” The decision does include closing unregulated dispersed camping.
MKC007	5	D. Bradford Hardenbrook, State of Nevada, Department of Wildlife	Does inclusion of clean-up and policing of the Spring Mountains NRA because these activities and the funding supporting them are conditional project tangibles? Why would they not be part of normal NRA programs in order to occur? The text and photos on Page 2-4 addressing illegal dumping and vandalism of cultural sites seems to be an indication of Forest Service's needs to focus on alternative workforces, perhaps volunteer organizations, to help fill in performance gaps for basic park functions such as trash and litter clean-up and active compliance patrols.	The SMNRA has several Southern Nevada Public Land Management Act (SNPLMA)-funded initiatives, including litter cleanup, education, and enforcement programs and we are making progress in these areas. Our goal is to have these initiatives sustainable without SNPLMA funding, and we have personnel dedicated to this.
MKC007	6	D. Bradford Hardenbrook, State of Nevada, Department of Wildlife	The location of the Middle Kyle Canyon Complex is within an important mountain brush and chaparral habitat type adjacent to lower montane woodlands (Pinyon-juniper) at its upper elevations and mixed desert scrub type (Joshua tree/blackbrush) along the lower portions of the Complex. This Chaparral habitat is not common in many areas of the Mojave Desert but supports wildlife species, in particular birds, which are important	The bird species covered in the Conservation Agreement (CA) include only the northern goshawk, southwestern flycatcher, American peregrine falcon, the flamulated owl and the western burrowing owl. A summary of the impacts on wildlife habitat types and species analyzed in detail are included in Table 3.3-2 and Table 3.3-3. The species listed in the NDOW comment are not included in the 1998 CA.

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			conservation targets for the Nevada Chapter of Partners in Flight and the Spring Mountain Conservation Agreement. These are noted below with accompanying rationale: Black-chinned sparrow : Rationale—Spring Mountains National Recreation Area Conservation Agreement (SMNRACA) Watch list species—Partners in Flight Species of Conservation Priority—Audubon Watch List (Red) Gray vireo: Rationale—SMNRACA Watch list species—Partners in Flight Species of Conservation Priority—Audubon Watch List (Yellow) Pinyon jay: Rationale—SMNRACA Watch list species—Partners in Flight Species of Conservation Priority—Audubon Watch List (Yellow) Virginia's Warbler: Rationale—Partners in Flight Species of Conservation Priority—Audubon Watch List (Yellow) LeConte's Thrasher: Rationale—Partners in Flight Species of Conservation Priority—Audubon Watch List (Yellow) Gray flycatcher: Rationale—SMNRACA Watch List species—Partners in Flight Species of Stewardship Priority—Audubon Watch List (Yellow)	
MKC007	7	D. Bradford Hardenbrook, State of Nevada, Department of Wildlife	In Table 3.3-3 on Page 3.3-20, potential impacts resulting from the Proposed Action to both Great Basin collard lizard and Western red-tailed skink describe impacts to the banded gecko. Need for correction?	The species name has been corrected in Table 3.3-3 of the FEIS.

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MKC007	8	D. Bradford Hardenbrook, State of Nevada, Department of Wildlife	The actual supplying of game fish for stocking and compliance administration of a put-and-take program are two key elements necessary to facilitate a satisfying outdoor education angling experience. The necessary infrastructure required for implementation and perpetuation of the proposed program has yet to be adequately coordinated by the Forest Service [and] NDOW's Southern Region Fisheries Division for guidance and permitting information and opportunities.	Design criteria W10 in Table 2-4 in the FEIS identifies our intent to coordinate with NDOW for guidance and permitting information related to any proposed commercial or stocked fishing activities.
MKC008	1	Lee Bice, Clark County Desert Conservation Program	The Clark County Department of Air Quality and Environmental Management Desert Conservation Program Division has reviewed the subject draft environmental impact statement (DEIS) for the Middle Kyle Complex project and has noted a number of butterfly and rare plant species are found in the project area. These species are addressed in the Spring Mountains Conservation Agreement between U.S. Fish and Wildlife Service and the U.S. Forest Service. We encourage the U.S. Forest Service to minimize any negative impacts to these species or to their habitats.	Thank you for your comment. We are in consultation with the U.S. Fish and Wildlife Service (USFWS) to minimize impacts on these species.
MKC009	1	Judith Pixley, General Public	Debris Flows and Floods: One of the most troubling aspects of this project is that hundreds of acres of soil will be disturbed (page 3.1-11) in action alternatives. There really is no way to know if your mitigation measures will stop debris flows, slope failure, and flood damage. Sometimes there is loss of life due to these types of events. Please develop a worst-case scenario, including intense flash flooding and rain-on-snow events. Someday the land below these projects may be developed. We owe it to the people and land owners to be honest about potential risk.	Debris flows, slope failures and flood damage are natural occurrences. Proper location of facilities outside of flood prone areas and areas of geologic hazard, along with appropriate drainage and erosion control will minimize risks. For the analysis some modeling was conducted to delineate 50- and 100-year floodplain areas where crossings and facilities were proposed within the floodplain. This project does not adversely alter the hydrological function of the drainage. In fact, the project will improve the hydrologic function of Kyle wash by replacing undersized culverts and removing in-stream log structures at the former golf course property.

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MKC009	2	Judith Pixley, General Public	The hydrological analysis should be included within the final EIS. Expand on the discussion found on page 3.1-4 of the DEIS, which states: "The potential exists for debris flows and flash floods to occur in Kyle wash and in smaller tributaries and swales. The debris flows and flash floods typically occur in response to intense rainfall. These events are exacerbated in watersheds where a wildfire has occurred in the recent past, or in which significant areas of impervious surfaces contribute to increased runoff potential."	Flash floods and debris flows are common occurrence in the high desert and surrounding environment subject to intense rain events. This project will not increase the risks associated with flash floods or debris flows—see response above.
MKC009	3	Judith Pixley, General Public	Please include comments from the U.S. Army Corps of Engineers regarding the Kyle wash (page 3.7-10 DEIS). Is there a risk that human waste could reach and contaminate the groundwater if the system is over-whelmed by a severe weather event? Please consult with the Army Corps on this issue and on the issue of flooding.	The Forest Service has been in consultation with the U.S. Army Corps of Engineers (Corps) regarding jurisdictional determination of Kyle wash under the Clean Water Act. The Corps did not provide comments on the DEIS; however, as a result of the consultation, the Corps did provide us with a Preliminary Jurisdictional Determination (RGL 08-02), a nonbinding written indication that there may be waters of the United States on the site. Consequently the Forest Service will obtain and comply with required 401 and 404 permits. There is remote potential for discharges if the central waste treatment plant with sewer lagoons was constructed. The decision does not include this treatment system so there will be no risk that human waste could reach and contaminate surface or groundwater from a severe weather event.

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MKC009	4	Judith Pixley, General Public	How much fill material will be hauled up the Kyle Canyon Road to the project area? And where will this fill come from? What type of fill? How many truck loads will it take to move the fill up the mountain? Please reveal in the final EIS.	The volume of fill material necessary for the project has not been determined. Borrow sources would be located off National Forest System lands and are expected to come from commercial pits/quarries. The number of truck loads to move fill up the mountains was not specifically calculated. However, the air quality specialist report included Urban Emissions (URBEMIS) air quality modeling, which was used to predict construction and operation emissions associated with the alternatives. URBEMIS is a computer program used to estimate emissions from construction, vehicle trips, and fuel use resulting from land use development projects. URBEMIS estimates emissions based on the type of land use and area source and vehicular emissions typically associated with the land uses.
MKC009	5	Judith Pixley, General Public	Groundwater Pumping: The vast amount of groundwater that may be use by this project shocks me! On page A-54 DEIS, it says that consumption of water is not to exceed 83.54 acre-feet annually. How will this huge among of pumping affect ground water levels? What plants, including trees, will no longer get enough water to be healthy or survive? What animals that depend on both the plants and water now will die? How fast will the groundwater level drop? How will the drop in groundwater affect the risk of fire if the forest dries? If the forest becomes drier how will this increase the risk for people living or visiting if there is a fire?	There are two wells associated with the project. One well, located in Kyle wash has a static water level at 165 feet below ground surface. The other well located north of SR 157 has a static water level at approximately 500 feet below ground surface. These depths are great enough that they will not influence plants and animals on the surface. Pump yield tests, performed to determine maximum sustained pump rates for the wells were 275 gallons per minute (gpm) and 250 gpm, respectively. The peak day demand, based on the Proposed Action worst-case scenario was estimated at 122 gpm. The peak pumping rate associated with the Forest Service water right is 170 gpm, both are under the pump rates that could lead to lowering groundwater levels.

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MKC009	6	Judith Pixley, General Public	This issue [groundwater pumping] is serious. Please show a chart giving approximate amounts of water given to end users, and what all this water will be used for...and where?	Estimates of water consumption were performed on the Proposed Action (representing the highest level of development) and included conservative assumptions (i.e., without water conservations measures) to represent the worst case scenario to verify sufficient water rights were available. These estimates indicated annual water demands of 52.0 acre-feet for potable water, 28.4 acre-feet for irrigation, and 2.4 acre-feet for utilities. These estimates included 6.8 acres of irrigated space and snow making for snow play. The calculations included all of the proposed new facilities, the Kyle Canyon Campground and the Fletcher View Campground. Use estimates were not performed on the Market Supported Alternative. It is expected that the Selected Alternative with scaled back facilities, reduced irrigation areas, no snow-making and implementation of water conservation measures will require significantly less water than was disclosed for the Proposed Action.
MKC009	7	Judith Pixley, General Public	Is the pumping of almost 83.54 acre-feet annually from the old Nel Golf Course property sustainable? Give proof to justify your response. Please take into consideration the potential for long-term drought. Also consider additional groundwater use into the future. What would the effects of pumping have on groundwater levels in twenty years or in fifty years?	Acquisition of the former Nel Golf Course property included 54% of the original water rights for the property. Change of land use for this area from a golf course to a recreation complex will result in significantly less water consumption. The Forest Service water right associated with this project is within the Las Vegas basin and represents a fraction of the groundwater aquifer. Appropriation of water rights is under the purview of the State Engineer who manages the application and permitting of water rights with the interest of maintaining adequate groundwater reserves. With global warming, population growth, and development it is impossible to accurately predict the long-term effects of groundwater use. We

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				acknowledge the significance of limited water resources and are committed to implementing the project in an environmentally responsible manner to minimize water consumption.
MKC009	8	Judith Pixley, General Public	Please complete ground surveys for threatened, endangered, and sensitive species before the final EIS is written so that this information may be included. All ground surveys should be completed before a final decision because afterward is often too late! And this goes for other species which will be impacted as well.	There are no threatened or endangered species in the project area. Extensive surveys were completed for sensitive species. Impacts on sensitive species and their habitats are documented in the Botany and Wildlife Biological Assessment and Biological Evaluations.
MKC009	9	Judith Pixley, General Public	Please send me a copy of: the April 2009 Draft Vegetation Management Plan for the Kyle Campground, Kyle CCC Camp and the proposed Middle Kyle Complex (Above and Beyond Ecosystems Enterprise Unit 2009) and Biological Assessment/Biological Evaluation (ICF Jones & Stokes 2009h) and a paper copy of the final EIS and decision notice and notification if there is an extension of time for the comment period for the draft EIS.	The documents requested have been mailed. The DEIS comment period was not extended.
MKC009	10	Judith Pixley, General Public	I support the "No Action Alternative" because after reading the DEIS, I believe the proposed project will do much more harm than good.	With every decision there are tradeoffs, and we are required to disclose the impacts particularly the short-term impacts for the long-term benefit. The Record of Decision provides the rationale for the Selected Alternative. The No Action alternative does not meet the Purpose and Need for the project.

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MKC011	1	Patricia Sanderson Port, DOI-Office of Environmental Policy and Compliance	The U.S. Fish and Wildlife Service's (Service), Nevada Fish and Wildlife Office in Las Vegas, Nevada has worked with the Forest Service's Spring Mountains NRA staff on the subject project for many years. The Service's authority for cooperation with the Forest Service and review of the proposed project is under the auspices of the Conservation Agreement for the Spring Mountains NRA, Clark and Nye Counties, Nevada signed in 1998. The purpose of this Conservation Agreement is to provide long-term protection for the rare and sensitive flora and fauna located in the Spring Mountains NRA sufficient to preclude the future need to list any of the species under the Endangered Species Act of 1973, as amended. In addition, both agencies are signatories to the Memorandum of Agreement (MOA) Concerning Endangered Species Act Section 7 Consultations and Coordination signed in 2004 to establish a general framework for a streamlined process for interagency cooperation within the jurisdiction of the Humboldt-Toiyabe National Forest and the Nevada Fish and Wildlife Office. Based on the implementation of the Conservation Agreement and MOA, our agencies have an established process for project input, review and concurrence on projects. The Service's Nevada Fish and Wildlife Office will continue to work with the Forest Service through the established process under the Conservation Agreement and MOA to address outstanding concerns or issues related to species protection and conservation in the Spring Mountains NRA as it pertains to the Middle Kyle Canyon Complex Project.	This letter is included in Appendix A1; however, a response is not included because the letter is a statement of fact that does not require a comment.

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MKC012	1	Kathy Ujifusa, General Public	Please ensure all multiuse trails constructed are built to equestrian standards.	All multiuse trails will be constructed to meet Forest Service standards for the intended users.
MKC012	2	Kathy Ujifusa, General Public	Please reconsider a crossing area on SR 158 (Deer Creek Highway) to connect equestrian use from the main staging area (gravel pullout across from the Mt. Charleston Resort—Telephone Canyon) to Fletcher Canyon Trail. Most horse trailers will not fit in the proposed parking at the Fletcher Canyon Trailhead. Without a safe crossing, equestrian access is dramatically decreased for access to the Fletcher Canyon Trail. Horse crossing signage and caution lights would be adequate.	The decision does not include a trail connection from north Telephone Canyon area to the Fletcher Canyon trails via SR 158 because of safety concerns. We believe that this is not a safe section of highway for a designated equestrian crossing.
MKC012	3	Kathy Ujifusa, General Public	I am not in favor of a dispersed camping closure 300 feet on either side of all Forest system roads. With the lack of a designated equestrian campground that is greatly needed, camping within 300 feet of a Forest system road is the only alternative for most equestrians with horse trailers. Under the dispersed camping closure, an equestrian would need a horse pack string and be able to travel to water for overnight camping. This closure would limit access for various equestrians of diverse abilities to enjoy the developed canyons of Kyle and Lee, especially the Blue Tree area with the extensive equestrian trail network that can provide multi-day riding opportunities.	The dispersed camping closure is limited to the designated motorized routes located in developed canyons (Kyle, Deer Creek and Lee Canyon) on the east side of the SMNRA. A majority of the SMNRA would not be affected by this decision. We agree that there is a need for an equestrian campground. Market and financial analysis performed for the SMNRA confirmed this need, but recommended that the equestrian campground be located near a trail network with mileage sufficient for multi-day rides. We considered your comment and the decision does allow permitted dispersed camping at the Blue Tree designated dispersed campsites.
MKC012	4	Kathy Ujifusa, General Public	I am in favor of equestrian access to multi-use trails developed on the South side of SR 157. Please re-consider a crossing area on SR 157 connecting from the main staging area in Telephone Canyon to the variety of multi-use trails proposed.	The decision does not include a highway equestrian crossing on SR 157 because we do not have multiuse trails designated for equestrians on the south side of SR 157.

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MKC012	5	Kathy Ujifusa, General Public	If an equestrian campground is reconsidered in this area [Telephone Canyon], please keep in mind that the equine and rider must be at the same campsite. Separation of the equine to corrals and parking of horse trailers in the campground of another area is not a recommended option.	We concur, and if any equestrian campground is constructed on the SMNRA in the future, we will ensure that the equine and the rider are at the same campsite.
MKC012	6	Kathy Ujifusa, General Public	Please keep in mind equestrians are of a variety of abilities and ages including those with handicaps as with other user groups. Please consider carefully the access for equestrians to equally enjoy Kyle Canyon, Lee Canyon, and Deer Creek areas as done for other user groups.	Thank you for your comment. Design of trail facilities will take into consideration a wide range of user ability levels to provide for a variety of opportunities.
MKC013	1	Rodney Ward, General Public	I believe the overall suggested plan for by the USFS is a relatively good recommendation.	Thank you for your support.
MKC013	2	Rodney Ward, General Public	Amphitheater: The seating capacity (150) for the main amphitheater appears to be far too small. This will severely limit the use of said theater. Please re-consider increasing the size of this amphitheater to the—Proposed Action—of the 1,500 capacity.	Financial analysis completed for the project found the 1,500-person amphitheater under the Proposed Action was not market supported based on the surrounding competitive Las Vegas market. In addition, the large amphitheater would require significant parking capacity resulting in the need for a parking garage at the site. Because of the high costs associated with constructing a parking garage and the lack of market support, the scale of the amphitheater was reduced in the Market Supported Alternative. The decision includes the smaller-sized amphitheater.
MKC013	3	Rodney Ward, General Public	The addition of the multiuse trails is a great addition to this project.	Thank you for your support.

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MKC013	4	Rodney Ward, General Public	Reconsider increasing the number of miles of hiking and biking trails.	Your support for additional trail mileage is noted. The decision is to implement fewer miles of trails than described in either action alternative in the EIS. However, we are considering additional trails to the north and east of the Telephone Canyon area in a separate NEPA analysis based on ongoing work with local user groups. These trails are not included in this decision because many of the trails were not included in the Middle Kyle Complex project resource surveys.
MKC013	5	Rodney Ward, General Public	Recommend connecting the bike trails on this project to the bike trails on the BLM "Twilight Zone" area.	The Forest Service will coordinate with the U.S. Bureau of Land Management (BLM) to identify trail connectivity between agency-managed lands to provide for logical trail networks that balance user needs with resource considerations. The BLM “Twilight Zone” trails are still in the early planning stages; therefore, a connection to that trail network is not included in this analysis.
MKC013	6	Rodney Ward, General Public	Recommend to continue to involve the user groups to design and build trail systems throughout the project.	We agree and intend to include interested user groups to assist in the design and building of the trail network included in the Record of Decision.
MKC013	7	Rodney Ward, General Public	Trail Bridge for Kyle Wash/Slot Canyon: Reconsider adding this to the hiking & biking trail system. This will be a great way for people to view the area as well as hike/bike in the canyon. Avoid paving the trail.	The decision does not include the Slot Canyon Trail bridge. This decision was based on cost considerations and concerns expressed by the American Indian tribes. An unsurfaced trail will lead to an overlook where the bridge was proposed.
MKC013	8	Rodney Ward, General Public	Commercial Equestrian Trail Rides: Recommend eliminating this practice. The increased traffic by commercial use of the trails will decrease the life of the "sustainable" trail system. This is counterproductive to the purpose of this project	Equestrian use, including commercial equestrian trail rides, is a legitimate use on National Forest designated trails. We agree that unmanaged use can lead to adverse resource damage. Commercial equestrian use will be restricted to designated routes. Proper trail location, improved wayfinding/trail marking, enforcement, and monitoring will help to minimize resource damage.

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MKC014	1	Ellis Greene, General Public	The screams of those who own land and houses in the upper areas, and their desire—in some way—to focus interest in lower areas and reduce drivers/lookers from driving to the upper areas where there is inadequate parking and turnaround capability were high priority items—in addition to the desires to some portions of the land that are overused and impacted. This should have been included on page ES-2 in the first major paragraph of Purpose and Need for Action.	The section you refer to, ES-2, is part of the Executive Summary, which does not go into great detail about the project. The Purpose and Need section in Chapter 1, Section 1.3.1, reflects the intent of this statement.
MKC014	2	Ellis Greene, General Public	I have participated in all of the other meetings I am aware of and have made inputs—many of which have not been used.	All public comments received have been considered in development of the Proposed Action and Market Supported Alternative. When arriving at the decision we consider all comments as well as the resource impacts and financial implications. Unfortunately we cannot satisfy all requests.
MKC014	3	Ellis Greene, General Public	I have been visiting Mt Charleston and using almost all of the recreation trails, primarily by Horseback, for approximately 20 years. The primary recreation users are persons who walk the trails, equestrians who ride the trails, and (increasingly) mountain bikers. Only the mountain bikes have appreciably impacted the existing small trails (many established by wild horses). But even the biker damage has not been too bad—except in Telephone Canyon. Some of these riders would have the trails designated for mountain bikes only. THIS MUST NOT OCCUR!	The decision designates all trails in the Telephone Canyon area as multiuse trails.

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MKC014 4		Ellis Greene, General Public	Motor vehicles, particularly ATVs, have impacted many roads, particularly in portions of the Blue Tree Trails system. To a large extent, the study of motorized uses, signs placed by USFS, and enforcement (inadequate) have made good strides in stopping this damage.	Thank you for your words of appreciation.
MKC014 5		Ellis Greene, General Public	I object to the general administrative action that would prohibit dispersed camping within 300 feet on either side of forest service roads and trails as in the DEIS and the letter/introduction by Hal Peterson prior to Page ES-1. Prohibition of some very specific spots/areas may be satisfactory, but the general rule MUST NOT BE IMPLEMENTED. Camping in a natural setting is desirable and needed. As examples, the small areas used by campers along Mac Canyon Road should not be prohibited, and some of the camping along recognized roads in the Blue tree area should not be prohibited. Certainly, camping in the general Blue Tree area SHOULD NOT BE PROHIBITED.	We considered your comment and the decision does allow permitted dispersed camping at the Blue Tree designated dispersed campsites. Visitors wanting to camp in a natural setting can still do so outside of the SMNRA-developed east side canyons (Kyle, Deer Creek and Lee Canyons).
MKC015	2	Ellis Greene, General Public	I agree with decisions not to implement should Alternative 3 be selected. The same considerations should be taken for Alternative 2.	Thank you for your comment.
MKC015 3		Ellis Greene, General Public	I do not agree with the general Administrative Action to prohibit dispersed camping. USFS must be specific and should not use this document to implement a questionable action for the large forest area mentioned (in the Table).	The dispersed camping closure is specific to the developed canyons (Kyle, Deer Creek and Lee Canyon) on the east side of the SMNRA. A majority of the SMNRA would not be affected by this decision. This closure is directly related to the Purpose and Need for the project—to reduce impacts in the upper canyons by directing recreation users to less congested areas and developed recreation sites.

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MKC015 4		Ellis Greene, General Public	DEIS Page ES-2, Purpose: The screams of the people living at higher levels on the mountain should have been included when discussing the purpose of the DEIS. These people want to reduce the number of persons entering the mountain, particularly in their areas. The "lookers" drive and turn around and have no place to park.	The section you refer to, ES-2, is part of the Executive Summary, which does not go into great detail. The Purpose and Need section in Chapter 1, Section 1.3.1, reflects the intent of this statement.
MKC015 5		Ellis Greene, General Public	DEIS Page ES-4/5: From a recreation standpoint, Alternative 1 isn't all bad. I am particularly concerned about the clutter and encroachment on the lower level of Telephone Canyon in Alternatives 2 and 3. Telephone Canyon is a prime area, and the views should not be impacted seriously with all the planned facilities.	Our final decision is to actually construct less in the lower Telephone Canyon area than what is described in either the Proposed Action or Market Supported Alternative (Alternative 2 or 3). During the design we will take special care to mitigate the impacts of construction on the views (see design criteria in Table 2.4 of the FEIS)
MKC015	6	Ellis Greene, General Public	DEIS, Page ES-6. I agree with the decisions not to implement the items listed under Forest Service's Preferred Alternative. The actions identified should not be implemented for any of the alternatives.	Thank you. We appreciate your comment.
MKC015 9		Ellis Greene, General Public	No trails should be closed to equestrians. If a trail is of sufficient concern due to conflicts with mountain bikes, other solutions should be used. This is because the trails are limited, particularly if the available loops are disrobed by closures of certain trails. Possibly, certain days could be designated for the types of users, but no trails should be closed.	In general, the decision designates multiuse trails to the greatest extent possible. However, there are areas where some user groups will be restricted or prohibited because of legal requirements such as wilderness, safety concerns, and resource impacts. Designations indicate the most appropriate use and do not necessarily imply restrictions. Trailhead design would accommodate the designated trail uses.
MKC015	10	Ellis Greene, General Public	The helipad is too close to the equestrian campground. Recommend placement on the south side of SR157 (where people will understand the disturbances) or further to the east of the project area.	The decision places the helipad south of SR 157 and further east of Telephone Canyon.

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MKC015	11	Ellis Greene, General Public	The Horse Rental/Coral/Parking area is very large and close to the trail to the north on the illustration [Figure 1-3]. During construction this should be considered.	The decision moves the horse rental/corral/parking area to the west of the location shown on Figure 1-3 of the FEIS.
MKC015	12	Ellis Greene, General Public	I really do not care for the placement of the USFS Staff Housing and Research Building and the Interagency Building along Telephone Canyon Road or the associated road paving and closure gate. These facilities should be on SR157 so that the appearance of the canyon entry can be maintained.	Existing NDOT right-of-way, topography and drainages limit how close we can site facilities to SR 157. The decision eliminates the interagency fire and law enforcement buildings and moves the administrative facilities farther from the canyon entry. The road is paved because of the need for an all-weather surface and dust abatement. The gate is needed to effectively convert the road to a non-motorized trail north of the gate.
MKC015	13	Ellis Greene, General Public	From the outset, I have objected to the closure of Slot Canyon and the trail through the deep canyon/wash to the equestrian parking area. Improvements in the trail will be required for pedestrian use due to the large rocks that are now present. If this were improved, this would make the trail suitable for horses.	See response to MKC015 comment 9. The trailhead at the mouth of slot canyon will not be designed to accommodate horse trailers. This is due to the limited space within Kyle wash that is outside the floodplain.
MKC016	2	Robert Martinez, P.E., Nevada Division of Water Resources	Any water used on the described lands should be provided by an established utility or under permit issued by the State Engineer's Office. All waters of the State belong to the public and may be appropriated for beneficial use pursuant to the provisions of Chapters 533 and 534 of the Nevada Revised Statutes (NRS), and not otherwise. Any water or monitor wells, or boreholes that may be located on either acquired or transferred lands are the ultimate responsibility of the owner of the property at the time of the transfer and must be plugged and abandoned as required in Chapter 534 of the Nevada Administrative Code. If artesian water is encountered in any well or borehole it shall be controlled as required in NRS section 534.060(3).	The Forest Service will continue to work with the State Engineer’s Office to perfect its water rights under permits #62556 and #77223 in conformance with applicable state regulations and requirements.

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MKC017	1	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	EPA commends the Forest Service effort to balance the multiple uses of the popular Middle Kyle Complex located in the Humboldt-Toiyabe National Forest. We acknowledge that the Project is a positive step in addressing resource impacts from recreational uses. Of special note is the proposal to prohibit dispersed camping within 300 feet on either side of Forest Service roads and trails, closure of unauthorized user created roads and trails in the project area and restoration of various abandoned areas to natural vegetative condition.	Thank you for your comment.
MKC017	2	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Based on our review, we [U.S. Environmental Protection Agency] have rated the DEIS as Environmental Concerns—Insufficient Information (EA-2) due to our concerns regarding potential impacts to water quality, hydrology and aquatic resources, critical habitat and air quality. Additional information is also necessary to fully describe the Purpose and Need and monitoring and enforcement commitments.	The purpose of the EIS is to disclose the potential impacts on the public and the decision maker. The decision maker believes that there is sufficient analysis and a reasonable range of alternatives to make an informed decision. The project would not have an impact on critical habitat or aquatic resources. No critical habitat for federally listed species occurs in the project area or the SMRNA. No aquatic resources occur in the project area or project vicinity. Analysis documented in the specialist reports determined that potential impacts on air and water quality from the project would be minimized through the implementation of best management practices (BMPs), design criteria, and ongoing coordination with Clark County Department of Air Quality and Environmental Management (CCDAQEM). A federal agency has the discretion to describe a purpose and need in any manner that meets its statutory authority. The project purpose and need statements were developed by the Forest Service interdisciplinary team (IDT) to accurately reflect the Forest Service undertaking and identify the desired future conditions the agency intended to achieve by the action.

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MKC017	3	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	While we [U.S. Environmental Protection Agency] support the Forest Service goal to meet desired future conditions and provide protection for sensitive species and ecosystems, we recommend the Forest Service modify the alternatives under consideration to further reduce impacts to air and water quality, critical habitat, and aquatic resources, and to immunize habitat fragmentation.	No critical habitat for federally listed species occurs in the project area or the SMRNA. No aquatic resources occur in the project area or project vicinity. Analysis documented in the specialist reports determined that potential impacts on air and water quality from the project would be minimized through the implementation of BMPs, design criteria, and ongoing coordination with CCDAQEM. Some habitat fragmentation would occur as a result of project implementation. The project IDT considered impacts on wildlife habitat and habitat fragmentation during the alternatives development and impacts analysis. Consideration was given to facility location and size relative to potential adverse impacts on biological resources. With the proposed construction of roads, trails, and facilities we cannot reasonably eliminate fragmentation of habitat for these species. However, the project alternatives include the restoration of user-created routes throughout the project area, which would reduce habitat fragmentation in restoration areas.
MKC017	4	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	We [U.S. Environmental Protection Agency] also urge the Forest Service to describe and implement an aggressive and reliable monitoring and enforcement program.	Not enough information to respond to. The Record of Decision will specifically identify which mitigation and monitoring measures were selected and adopted as part of the decision. 40 CFR 1505.2(c) requires the Forest Service to include a monitoring and enforcement program for each of these adopted mitigation measures, where applicable.
MKC017	5	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	We [U.S. Environmental Protection Agency] appreciate the opportunity to review this DEIS. When the DEIS is released for public review, please send one (1) copy to [us].	We will send a copy of the FEIS to you when released for public review.

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MKC017	7	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The Draft Environmental Impact Statement (DEIS) identifies three "Need-for-Action Statements" for the Project, including the need to provide new Spring Mountain National Recreation Area (SMNRA) recreation facilities and visitor services that a) respond to anticipated increased SMNRA recreation demands from population growth in Las Vegas and Clark County; b) respond to future types of public recreation activities and trends; c) direct recreation users to less congested areas of the SMRA and into developed recreation sites; and d) are outside of upper Kyle, Lee, and Deer Creek Canyons to reduce natural resource impacts on major concentrations of plant and wildlife species of concern. The DEIS does not conclusively demonstrate how the proposed concentration and operation of a recreational complex on approximately 4,300 acres in Kyle Canyon meet the above Need Statement. For example, data are not provided that illustrate the need for the expanded infrastructure, nor how proposed actions address use levels and safety needs. Of specific concern are how new facilities may result in increased traffic and visitors that could result in cumulative watershed effects and may adversely affect sensitive aquatic resources and threatened species.	There are no aquatic resources or threatened species in the project area. The Record of Decision describes the rationale for the decision, including how the Selected Alternative responds to the purpose and need for the project.

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MKC017	8	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The Final EIS (FEIS) should provide specific examples and park use data, and incorporate references to demonstrate the need for the proposed recreation complex. For instance, include information on existing trail use, percentage of trails for different hiking abilities, current use of hiked-into terrain, demand for access to additional terrain, seasonal camping demand, and increases in vehicular traffic and off-highway vehicle (OHV) use.	Section 1.3.1 describes existing condition, including referencing appropriate studies (e.g., SMNRA Market, Financial and Operational Analysis, SMNRA National Visitor Use Monitoring Results for SMNRA), which provided visitor and use information sufficient to inform the decision.
MKC017	9	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	We [U.S. Environmental Protection Agency] recommend the FEIS also include an evaluation of the impacts from additional vehicular and OHV traffic including an analysis during the season's poorest air quality.	This project should not result in an increase of OHV traffic. The impacts of increased vehicular traffic on air quality are included in the Air Quality specialist report. Emissions modeling forecasted criteria pollutant emissions to be well below the general conformity applicability thresholds. In addition, SMNRA emissions would be very low compared to existing emissions within the regional airshed of Clark County.
MKC017	10	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The FEIS should include a cost comparison of the action alternatives and describe the implementation priority for the facilities, trail additions, modifications and closures, and other Project infrastructure.	We specifically decided not to include a cost comparison in the EIS. A detailed cost analysis of construction and operational costs was completed for the project and is part of the project record. Because of the current economic volatility and difficulty to develop accurate costs based on the preliminary level of detail, we chose not to provide that information. The most expensive alternative is the Proposed Action and the least expensive is the No Action Alternative.

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MKC017	11	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The DEIS indicates that rapid population growth of Clark County, Nevada is exerting pressure on existing recreation facilities in the SMNRA (at p. 1-3). The DEIS improvements to this Middle Kyle Complex are considered necessary to provide for the existing and projected demand attributed to large-scale growth in the greater Las Vegas Area. We [U.S. Environmental Protection Agency] commend the Forest Service for including extensive projected growth studies as part of the DEIS. However, we note the current market projections discussion in Section 1.3 is based on the Clark County Department of Comprehensive Planning Study from 2008 and the Hutton study from 2005. In light of the major economic events since early 2008, the FEIs should include updated projections as a result of the recent economic downturn. For example, we note that the DEIS mentions that the 16,000 new home master plan at the intersection of SR 157 and US95 has been put on hold. The FEIS should fully discuss how future growth projections have been or could be significantly impacted by recent economic factors, such as the continued downturn in the housing market, the more recent credit crisis, and the sustained economic recession, which will likely have a slowing impact on growth in these areas as well as travel demand to and from Las Vegas.	The Clark County Department of Comprehensive Planning Study from 2008 is still the most recent information. The Market Supported Alternative relied heavily on information from a PricewaterhouseCoopers Market, Financial and Operational study for the SMNRA that was completed in 2008. However, we do acknowledge that recent economic conditions for Clark County and the Las Vegas area have continued to change, and this information has been considered in the decision.

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MKC017	12	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Update all growth-related projections to reflect the latest economic developments and visitor forecasts and update the evaluation of alternatives, as appropriate. The impact of these recent events on previous growth projections should be considered, and their relevance to the Project and future plans for the SMNRA discussed. Each of the alternatives analyzed should be considered in light of the most recent forecasts.	The information provided in the FEIS reflects the most recent growth projections provided by Clark County.
MKC017	13	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Integrate the Agency Direction and Guidance Documents into this Environmental Analysis. The DEIS references the Clark County Multiple Species Habitat Conservation Plan (HCP), the Conservation Agreement for the Spring Mountains National Recreation Area (CA), and the Spring Mountains National Recreation Area Landscape Assessment (LA). While the DEIS indicates that each of these documents provides guidelines for management of the SMNRA and development of the Proposed Action and alternatives, the DEIS does not provide a concise or tabulated description of the data and analyses relied upon in the DEIS, nor fully integrate these analyses into the analysis for the Project. The DEIS also indicates that the CA has expired and is in the process of being amended. The DEIS should describe the implications of the CA revisions and how the Project will conform to the modified CA expected in 2010. Recommendation: The FEIS should provide a summary of the decisions and actions approved in the HCP, CA, and LA and describe how they relate to the Project. This summary should include any proposed actions; the direct, indirect, and cumulative environmental effects	The Clark County Multiple Species Habitat Conservation Plan (HCP) and the CA are agreements, but not decision documents. We will continue working with the USFWS to minimize effects on species to avoid actions that will trend toward species listing as Threatened or Endangered. The CA revision is not far enough along to determine or disclose in the FEIS how the project will respond to the 2010 CA revision. Executive summaries of the HCP, CA, and Landscape Analysis (LA) are not included in the FEIS. The FEIS provides the appropriate Web site address so that interested public can view this material.

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			of these actions; and mitigation and monitoring commitments. We [U.S. Environmental Protection Agency] recommend including the Executive Summaries of these documents in an appendix in the FEIS.	
MKC017	14	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Water Quality. As the designated water quality management agency under the Clean Water Act Section 208 Management Agency Agreement, the Forest Service is required to implement Best Management Practices (BMPs) and other measures to achieve full compliance with all applicable State water quality standards. Implementation of BMP measures alone does not necessarily ensure full compliance with State water quality standards. The DEIS indicates the operation and use of the recreational facilities could also reduce water quality and productivity and cause accelerated erosion and subsequent sedimentation of downstream waters (at p. 3.1-14). The DEIS also indicates that implementation of BMPs and stormwater management practices will minimize these efforts and no significant adverse impacts are anticipated (at p. 3.1-14). While we [U.S. Environmental Protection Agency] support the inclusion of BMPs in the FEIS, additional management actions beyond BMPs may be required to achieve full compliance with all applicable water quality standards.	We will coordinate with CCDAQEM for project compliance with Clark County 208 Area-Wide Water Quality Management Plan recommendations and provisions throughout project design and implementation phases, as appropriate.

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MKC017	15	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The DEIS indicates that "no streams in the project area are listed as impaired pursuant to the Clean Water Act Section 303(d); however, the Las Vegas Wash from Telephone Line Road to the confluence of Las Vegas Wash with Lake Mead, of which these streams are tributaries, is listed as impaired or as needing further study for possible listing as an impaired water resource by the State of Nevada, as required by the Clean Water Act Section 303(d)" (at p. 3.1-13). The impairment status of the Las Vegas Wash should be clarified and further explained. Additionally, Section 3.1.4 on Hydrology does not analyze the Las Vegas Wash any further nor does the Section discuss the implications of a future listing as an impaired water.	The Telephone Line Road referred to in your comment is located about 50 miles from the project area and is well outside the area of influence. A definitive hydrological surface connection between the ephemeral washes in the project area and the Las Vegas wash is absent. The DEIS reference to the Las Vegas wash reflects consideration of the impaired water within the overall watershed.
MKC017	16	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The Final Environmental Impact Statement (FEIS) should describe water quality standards and BMPs for the project area, including standards for pathogens and Clean Water Act antidegradation requirement. Evaluate the Forest Service's ability to ensure full compliance with water quality standards through the use of BMPs and identify additional measures that may be necessary to achieve compliance.	Design criteria identified in Table 2-4 will be included in the Record of Decision. The Forest Service will coordinate with CCDAQEM for compliance with applicable sections of Chapter 24.40 of the Clark County Code, “Storm Sewer System Discharge” and the Clark County208 Area-wide water quality management plan. Construction will be performed in accordance with the required National Pollutant Discharge Elimination System (NPDES) permits.
MKC017	17	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Discuss the implications of a future listing of the Las Vegas Wash as an impaired water resource and include specific measures within the EIS that could help protect the wash from further degradation as a result of the project.	See response above. In addition we would coordinate with CCDAQEM to ensure that project designs are implemented in a manner to minimize downstream water quality effects consistent with the design criteria listed in Table 2-4 of the FEIS. However, it should be noted that Las Vegas wash is located over 15 miles from the project area and is outside the area of influence.

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MKC017	18	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The FEIS should expand the evaluation of potential impacts to stream channels and the waters of the United States. For example, state the percentage of stream channels in the area that may be affected, and the significance of the potential impacts on those channels, whether these impacts may be in critical or vulnerable stream channel locations, and the ecological significance of these resources. Each table should clearly state the measurement units for the presented data.	Evaluation of potential impacts on stream channels and hydrology is disclosed in the hydrology specialist report. Additionally, effects on hydrology are disclosed in Chapter 3 of the FEIS. Because of the geomorphology, hydrology, climate, project design (regarding minimal activities within drainage channels), BMPs, and design criteria it has been determined that sufficient evaluation of the alternatives has been performed to make an informed decision.
MKC017	19	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The FEIS should discuss whether the proposed reconstructed and new campsites are within 50 feet of water, regardless of the site type, and whether they would contribute sediment and/or manure to surface water with significant local adverse effects.	Some of the reconstructed campsites in Kyle Canyon Campground are within 50 feet of Kyle wash (which is a dry wash that flows intermittently). Proposed new campgrounds and picnic areas east of Kyle Canyon Campground are all further than 50 feet from Kyle wash.
MKC017	20	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The FEIS should disclose whether any stockholding sites would be located less than 50 feet from water, and whether they are contributing substances to water resulting in water quality concerns. These adverse water quality effects would be of significant concern given the use of surface waters by other wilderness users.	There are no stock holding sites proposed within 50 feet from surface waters.
MKC017	21	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The Forest Service should work closely with pack and recreational livestock operators to address water quality impacts caused by any stockholding sites and campsites less than 50 feet from water.	There are no stock holding sites proposed within 50 feet from surface waters.
MKC017	22	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	We [U.S. Environmental Protection Agency] recommend closure or relocation of campsite and stockholding areas with significant and observable adverse effects to water quality.	There are no existing or proposed campsites or stock holding areas at locations where they would contribute to significant and observable adverse effects on water quality.

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MKC017	23	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The DEIS does not describe existing environmental conditions at any current stations for pack and recreational livestock, although they are mentioned in the DEIS on pages 3.3-27 and 28. Nor does the DEIS, evaluate potential environmental effects of pack and recreational livestock or the effect of commercial pack stock use authorizations on the environmental conditions of any pack stations. Recommendation: The FEIS should include a description of existing conditions at current stations for pack and recreational livestock, especially those located on Forest service land. Evaluate the potential environmental effects of action alternatives and use authorization on existing conditions. For example, describe existing conditions and potential effects of reduced or increased use authorizations on water quality, meadow conditions, and threatened species habitat at pack station locations.	Pages 3.3-27 and 3.7-28 describe the impacts on species from the Proposed Action and Market Supported Alternative. While equestrian facilities are proposed there are currently no permanent equestrian/commercial pack stock facilities on the SMNRA that would provide information on existing conditions.
MKC017	24	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The DEIS does not appear to describe or address packstock watering practices which could contribute to water quality impacts. Recommendation: The FEIS should describe packstock watering practices and the potential for environmental impacts to water quality, threatened species, fish and wildlife and sensitive aquatic habitat. If potential impacts are likely, describe alternate stock management practices and mitigation measures to reduce these impacts.	Packstock watering would be limited to developed corral sites using potable water system designed to prevent contamination to the groundwater source and that are located well away from natural drainages. Trails and packstrings will not be located in washes. There are no active streams in the project area and therefore no impact to aquatic impact. There are no threatened or endangered species in the area.

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MKC017	25	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The DEIS should describe any impact to water quality from campsites, eroded/incised trails, stockholding and grazing areas. The DEIS should describe water quality monitoring and include quantitative data to support any assumptions. Recommendation: The FEIS should describe current water quality monitoring, if any. EPA recommends implementing a monitoring program in areas with known moderate to severe water quality degradation and high use. If funding and staffing resources are limited, the Forest Service should consider a limited, one-time water quality sampling project to validate water quality assumptions and determine if human health risks are present in drinking water sources (e.g., E. coli, Giardia, other bacterial pollutants).	Current water quality monitoring consists of complying with Forest Service and state drinking water requirements for chemical and bacteriological testing associated with groundwater sources. Since the project is in a dry wash system, there is no proposed surface water quality monitoring program.
MKC017	26	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Hydrology: Natural washes perform a diversity of hydrologic and biogeochemical functions that directly affect the integrity and functional condition of higher-order waters downstream. Healthy ephemeral waters with characteristic plant communities control rates of sediment deposition and dissipate the energy associated with flood flows. Ephemeral washes also provide habitat for breeding, shelter, foraging and movement of wildlife. Many plant populations are dependent on these aquatic ecosystems and are adapted to the unique conditions of these systems. Reconstruction of the Kyle Canyon Campground is proposed along the Kyle Wash (at Figure 2-6). The FEIS should commit to the use of natural washes, in their present location and natural form, to the maximum extent practicable with the inclusion [of] adequate	Implementation of the proposed project is not anticipated to disrupt downstream flows. No wetland creation is anticipated as a result of the proposed project; the excavation of large amounts of sediment would not be required. The Kyle Canyon Campground reconstruction does not propose to alter the existing channel. Action alternatives include activities that will improve hydrologic function of the natural wash, including removal of in-stream log structures to restore the natural flood prone areas, and replacement of undersized drainage crossings in Kyle Canyon Campground, Kyle Civilian Conservation Corps (CCC) Camp and Fletcher View Campground. The next higher order of waters is the Las Vegas wash, which is more than 20 miles from the project area and has been extremely altered.

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			natural buffers for flood control. The FEIS should identify how hydrological connectivity along the Project corridor supports the intent to utilize natural stream channels where they can provide adequate protection from flooding. The potential damage that would result from altered, flat-bottomed washes includes alterations to the hydrological functions that natural channels provide in arid ecosystems; adequate capacity for flood control, energy dissipation, and sediment movement, as well as impacts to valuable habitat for desert species. The FEIS should provide adequate hydrological modeling to demonstrate that downstream flows will not be disrupted due to proposed changes to any natural washes, the creation of wetlands, or the excavation of large amounts of sediment.	
MKC017	27	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Commit to the use of natural washes, in their present location and natural form, to the maximum extent practicable with the inclusion of adequate natural buffers for flood control.	We are committed to the use of natural washes, in their present location and natural form, and as a natural buffer for flood control.
MKC017	28	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Identify how hydrological connectivity along the Project corridor supports the intent to utilize natural stream channels where they can provide adequate protection from flooding.	The project does not propose alterations to the hydrologic connectivity along the project corridor such that it would adversely affect natural flood protection potential. Natural stream channels will not be altered with the exception of restoration work, e.g., removing in-stream log structures which would restore the natural hydrologic function of the floodplain and replacing existing undersized drainage crossings. Proposed new drainage crossings would be designed to minimize adverse channel effects.

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MKC017	29	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Provide adequate hydrological modeling to demonstrate that downstream flows will not be disrupted due to proposed changes to any natural washes, creation of wetlands, or the excavation of large amounts of sediment.	Alterations of natural washes that might have the potential to disrupt downstream flows are not proposed.
MKC017	30	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Identify where construction of the Project may provide for an opportunity to improve obstructed natural flows resulting from project construction.	Action alternatives include activities that will improve hydrologic function of the natural wash, including removal of in-stream log structures to restore the natural flood-prone areas, and replacement of undersized drainage crossings in Kyle Canyon Campground, Kyle CCC Camp and Fletcher View Campground.
MKC017	31	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Aquatic Resources: The purpose of the Clean Water Act is to restore and maintain the chemical, physical and biological integrity of waters of the United States (waters). These goals are achieved, in part, by controlling discharges of dredged or fill material pursuant to EPA's "Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials" (40 CFR 230), promulgated pursuant to Section 404(b)(1) of the CWA (Guidelines). Fundamental to the Guidelines is the principle that dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that there is no less environmentally damaging alternative that achieves the Applicant's project purpose. In addition, no discharge can be permitted if it will cause or contribute to significant degradation of waters. The DEIS presents contradictory information as to the status of the jurisdictional determination for the Project. Section 2.7-17 indicates there are no wetlands within in the project area under the jurisdiction of the U.S. Army Corps of Engineers (Corps) and there are no	The project area is located in a dry, ephemeral wash system and does not contain wetlands or wetland vegetation. The vegetation in the ephemeral washes is upland vegetation. The Forest Service has been in consultation with the Corps regarding the jurisdictional determination of Kyle wash under the Clean Water Act. As a result of the consultation, the Corps will provide a Preliminary Jurisdictional Determination (RGL 08-02), a non-binding written indication that there <u>may be</u> waters of the United States on the site. Consequently the Forest Service will obtain and comply with required 401 and 404 permits. Because we obtained a preliminary jurisdictional determination, delineation of the extent of waters, including wetlands was not completed.

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			non-jurisdictional wetlands that would be adversely impacted from implementation of either action alternative. Section 3.7/7 indicates that coordination with the Corps regarding the jurisdictional determination of Kyle Wash and Section 404 and 401 permitting requirements is ongoing and will be determined prior to publication of the FEIS. The FEIS should include the Corps verification of the delineation of the extent of waters, including wetlands, on the Project site. The FEIS should provide sufficient information to discern the extent of impacts to waters.	
MKC017	32	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The Forest Service should identify the location, extent, and functions and values of all jurisdictional wetlands within the project areas and potential impacts to these wetlands from the proposed project.	There are no wetlands, meadows, or wet meadows in the project area; therefore, the project would have no impacts on these resources.
MKC017	33	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The FEIS should establish measures that prevent adverse impacts to the hydrology and biology of wetlands and meadows.	There are no wetlands in the project area; therefore, the will be no impacts on wetlands from the proposed project.
MKC017	34	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Pursuant to the Guidelines, the applicant bears the burden of clearly demonstrating that the preferred alternatives is the least environmentally damaging practicable alternative (LEDPA) that achieves the overall project purpose, while not causing or contributing to significant degradation of the aquatic ecosystem. Identification of the LEDPA is achieved by performing an alternatives analysis that estimates the direct, indirect, and cumulative impacts to jurisdictional waters resulting from each alternative considered. Project alternatives that are not practicable and do not meet the project purpose are eliminated. The LEDPA is the remaining alternative with the fewest impacts to	The project is located in a dry wash system, and does not exhibit characteristics of aquatic ecosystems or wetlands. Therefore, references and analysis to aquatic resources do not apply to this project. There will be no discharge of dredged or fill material in aquatic resources. The Forest Service has been in consultation with the Corps regarding jurisdictional determination. The Forest Service has determined in the interest of time and cost factors to request a Preliminary Jurisdictional Determination (RGL 08-02), a non-binding written indication that there <u>may be</u> waters of the United States on the site. Consequently, the Forest Service will obtain and

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			aquatic resources, so long as it does not have other significant adverse environmental consequences. Only when an analysis is correctly structured can the applicant and the permitting authority be assured that no discharge other than the practicable alternative with the least adverse impact on the aquatic environment has been selected (40 CFR 230.10(a)). In addition, the applicant must clearly demonstrate that alternatives that do not result in the discharge of dredged or fill material in aquatic sites are either not practicable, or have other significant adverse environmental consequences. EPA offers the following recommendations to help facilitate compliance of the project with the Section 404 Guidelines, in the event it is determined that jurisdictional waters will be affected: Recommendation: The FEIS should include an evaluation of the project alternatives in order to demonstrate the project's compliance with the 404(b)(1) Guidelines. The alternatives analysis should include a reasonable range of alternatives that meet the Project purpose while avoiding and minimizing damage to waters. If, under the proposed project, dredged or fill material would be discharged into waters of the U.S., the FEIS should discuss alternatives to avoid those discharges.	comply with required 401 and 404 permits. The FEIS does consider a range of alternative that meet the purpose and need while minimizing impacts on waters of the United States.

Letter Number	Comment Number	Name and Affiliation	Public or Agency Comment	Forest Service Response
MKC017	35	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	If a discharge is permitted, the FEIS should discuss how potential impacts would be minimized and mitigated. This discussion should include: a) acreage and habitat type of waters of the U.S. that would be created, restored, or preserved; (b) water sources to maintain the mitigation area; (c) a revegetation plan utilizing native plants; (d) maintenance and monitoring plans, including performance standards to determine mitigation success; (e) an Adaptive Management Plan; (f) the parties that would be ultimately responsible for the plan's success; (g) contingency plans that would be enacted if the original plan fails. Mitigation should be implemented in advance of the impacts to avoid habitat losses due to the lag time between the occurrence of the impact and successful mitigation.	The Market Supported Alternative identified in the DEIS and the Selected Alternative identified in the Record of Decision do not include the sewer lagoon treatment plant and, therefore, a discharge permit would not be required for this project.
MKC017	36	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Air Quality: Although the DEIS reports in Section 3.1.3 that the Project will have no adverse operational or construction impacts to air quality, the document contains insufficient information to the support this conclusion. While we [U.S. EPA] recognize the DEIS references an Air Quality Specialist Report for the Middle Kyle Complex, the DEIS itself does not comprehensively assess the Project's operational and construction direct, indirect, or cumulative impacts to air quality. To address this insufficiency, the FEIS should include a complete description of potential impacts and commitments to reduce those impacts. In particular, EPA has concerns regarding: 1) the minimal mitigation measures to curb particulate matter (PM) and nitrogen oxides (NOx) emissions from construction equipment, 2) the absence of data describing additional vehicular traffic and resulting emissions from	Clark County Department of Air Quality and Environmental Management (CCDAQEM), the jurisdictional responsible agency for the project area, was a cooperating agency on this EIS. CCDAQEM reviewed and provided input on the air quality specialist report and design criteria to ensure that appropriate analysis and minimization measures were included in the action alternatives to minimize potential air quality impacts. The specialist report included URBEMIS air quality modeling, which was used to predict construction and operation emissions associated with the alternatives. URBEMIS is a computer program used to estimate emissions from construction, vehicle trips, and fuel use resulting from land use development projects. The program estimates emissions based on the type of land use and area source and vehicular emissions typically associated with the land uses.

Letter Number	Comment Number	Name and Affiliation	Public or Agency Comment	Forest Service Response
			the Project, and 3) the lack of discussion and analysis of OHV and helipad use. Emissions from diesel construction equipment, haul trucks, OHVs and other vehicles associated with this Project include PM, sulfur oxides, volatile organic compounds (VOCs), and NOx. VOCs and NOx are precursors to ozone. In March 2008, EPA further tightened the National Ambient Air Quality Standard (NAAQS) for ozone. Clark County is currently within a non-attainment area for carbon monoxide (CO), PM10, and 8-hour ozone. Note that the nonattainment boundaries do not follow the air basin or county boundaries and are different for each pollutant and area. The FEIS should include a discussion of the regional impacts of increase NOx and VOC emissions on the area's ability to attain the ozone standards.	The action alternatives actually reduce OHV use in the area with the closure of several roads/trails currently open to OHV use. The helipad use is anticipated to be at or near the same level as current use patterns that are limited to emergency response situations. In a letter from CCDAQEM, the Forest Service was informed that the U.S. Court of Appeals for the District of Columbia Circuit vacated Subpart 1 of the Clean Air Act; therefore, Clark County currently has no formal ozone classification.
MKC017	37	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The DEIS does not state whether there are existing visibility concerns caused by dust generated by motorized use, valleys subject to inversion conditions, or smoke from residential area, dispersed camping, timber management activities, or wildfires. Direct effects of fugitive dust and smoke are reduced visibility on and adjacent to routes and increased levels of particulate matter less than 10 microns in diameter (PM10), and particulate matter less than 2.5 microns in diameter (PM2.5) which are human health concerns. We [U.S. EPA] are concerned with the potential increase in ozone, fugitive dust, and smoke in vulnerable viewsheds and areas of high use which could have adverse impacts on smog levels, visibility, and human health.	There are no visibility concerns in the project area. Relative to the surrounding populated areas, very little motorized use occurs in the project area. The elevation of the project area is above valley inversion areas. Campfires are restricted from April through October, and no timber management occurs on the SMNRA. Down canyon airflow will minimize any affects that might occur. Potential air quality effects from the project alternatives are disclosed in Chapter 3 of the FEIS.

Letter Number	Comment Number	Name and Affiliation	Public or Agency Comment	Forest Service Response
MKC017	38	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The FEIS should include a discussion of the regional impacts of increased NOx and VOC emissions on the area's ability to attain the ozone standards.	In a letter from CCDAQEM, the Forest Service was informed that the U.S. Court of Appeals for the District of Columbia Circuit vacated Subpart 1 of the Clean Air Act; therefore, Clark County currently has no formal ozone classification.
MKC017	39	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The section for Air Quality should include a detailed description of conducted air quality analyses, including analysis of current and projected emissions from vehicular, OHV and helicopter usage, anticipated exceedences of standards, and mitigation measures to address these impacts.	See response to MKC0017 comment 36 on this topic.
MKC017	40	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The FEIS should provide a description and evaluation of the potential visibility impacts from fugitive dust, ozone, and smoke in the project area, in addition to effects on nearby Class I airsheds. We recommend the evaluation include information on dust generated in motorized vehicle high-use areas, the presence and frequency of valley inversion conditions, and the extent of existing visibility concerns as a result of smog and smoke.	Visibility effects to Class 1 airsheds are disclosed in Chapter 3 of the FEIS. Relative to the surrounding populated areas, very little motorized use occurs in the project area. The elevation of the project area is above valley inversion areas. Campfires are restricted from April through October, and no timber management occurs on the SMNRA. Down canyon airflow will minimize any affects that might occur. Action alternatives include paving high-use recreation roads and trails.
MKC017	41	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	EPA commends the Forest Service for incorporating mitigation strategies to reduce or minimize fugitive dust emissions (at p. 2-33). However, in addition to a fugitive dust control plan, this Project should incorporate more stringent emission controls for PM and ozone precursors for construction-related activity. There are additional mitigation measures that can be considered and applied to reduce emissions. Under NEPA, "all relevant, reasonable mitigation measures that could improve the project are to be identified. Mitigation measures must be considered even for impacts that by themselves would not be	Analysis for PM and ozone precursors determined effects to be minimal and, therefore, mitigation measures were not provided. We will continue to work with CCDAQEM in the permitting process to minimize PM and ozone precursors for construction-related activities consistent with the design criteria identified in Table 2.4 of the FEIS.

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			considered significant" (see Council on Environmental Quality (CEQ), 1981, "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations").	
MKC017	42	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Due to the serious nature of PM10 and 8-hour ozone conditions in Clark County, EPA recommends that the best available control measures (BACM) for these pollutants be implemented at all times. At a minimum, these measures should be incorporated into the ROD. We recommend that all applicable requirements under local rules and the following additional measure be incorporated into a Construction Emissions Mitigation Plan and that the FEIS and ROD incorporate the Construction Emissions Mitigation Plan. Fugitive Dust Source Control: Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate. This applies to both inactive and active sites during workdays, weekends, holidays and windy conditions.	We will comply with the CCDAQEM construction dust control permit and design criteria identified in Table 2.4 of the FEIS.
MKC017	43	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Due to the serious nature of PM10 and 8-hour ozone conditions in Clark County, EPA recommends that the best available control measures (BACM) for these pollutants be implemented at all times. At a minimum, these measures should be incorporated into the ROD. We recommend that all applicable requirements under local rules and the following additional measure be incorporated into a Construction Emissions Mitigation Plan and that the FEIS and ROD incorporate the Construction Emissions Mitigation Plan. Fugitive dust source control: Install wind fencing, and phase grading operations, where	We will comply with the CCDAQEM construction dust control permit and design criteria identified in Table 2.4 of the FEIS.

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			appropriate, and operate water trucks for stabilization of surfaces under windy conditions.	
MKC017	44	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Due to the serious nature of PM10 and 8-hour ozone conditions in Clark County, EPA recommends that the best available control measures (BACM) for these pollutants be implemented at all times. At a minimum, these measures should be incorporated into the ROD. We recommend that all applicable requirements under local rules and the following additional measure be incorporated into a Construction Emissions Mitigation Plan and that the FEIS and ROD incorporate the Construction Emissions Mitigation Plan. Fugitive Dust Source Control: When hauling material and operating non-earthmoving equipment, prevent spillage, and limit speeds to 15 miles per hour (mph). Limit speed of earth-moving equipment to 10 mph.	We will comply with CCDAQEM Dust Control Permit for Construction Activities and design criteria included in Table 2-4 of the FEIS.
MKC017	45	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Due to the serious nature of PM10 and 8-hour ozone conditions in Clark County, EPA recommends that the best available control measures (BACM) for these pollutants be implemented at all times. At a minimum, these measures should be incorporated into the ROD. We recommend that all applicable requirements under local rules and the following additional measure be incorporated into a Construction Emissions Mitigation Plan and that the FEIS and ROD incorporate the Construction Emissions Mitigation Plan. Mobile and Stationary Source Controls: Reduce use, trips, and unnecessary idling from heavy equipment.	We will comply with CCDAQEM permit requirements and design criteria included in Table 2-4 of the FEIS.

Letter Number	Comment Number	Name and Affiliation	Public or Agency Comment	Forest Service Response
MKC017	46	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Due to the serious nature of PM10 and 8-hour ozone conditions in Clark County, EPA recommends that the best available control measures (BACM) for these pollutants be implemented at all times. At a minimum, these measures should be incorporated into the ROD. We recommend that all applicable requirements under local rules and the following additional measure be incorporated into a Construction Emissions Mitigation Plan and that the FEIS and ROD incorporate the Construction Emissions Mitigation Plan. Mobile and Stationary Source Controls: Maintain and tune engines per manufacturer's specifications to perform at California Air Resources Board (CARB) and/or EPA certification, where applicable, levels and to perform at verified standards applicable to retrofit technologies. Employ periodic, unscheduled inspections to limit unnecessary idling and to ensure that construction equipment is properly maintained, turned, and modified consistent with established specifications. CARB has a number of mobile anti-idling requirements. See their website at: http://www.arb.ca.gov/msprog/truck-idling/truck-idling.htm.	We will comply with CCDAQEM permit requirements and design criteria included in Table 2-4 of the FEIS.
MKC017	47	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Due to the serious nature of PM10 and 8-hour ozone conditions in Clark County, EPA recommends that the best available control measures (BACM) for these pollutants be implemented at all times. At a minimum, these measures should be incorporated into the ROD. We recommend that all applicable requirements under local rules and the following additional measure be incorporated into a Construction Emissions Mitigation Plan and that the FEIS and ROD incorporate the Construction Emissions Mitigation Plan.	We will comply with CCDAQEM permit requirements and design criteria included in Table 2-4 of the FEIS.

Letter Number	Comment Number	Name and Affiliation	Public or Agency Comment	Forest Service Response
			Mobile and Stationary Source Controls: Prohibit any tampering with engines and require continuing adherence to manufacturer's recommendations.	
MKC017	48	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Due to the serious nature of PM10 and 8-hour ozone conditions in Clark County, EPA recommends that the best available control measures (BACM) for these pollutants be implemented at all times. At a minimum, these measures should be incorporated into the ROD. We recommend that all applicable requirements under local rules and the following additional measure be incorporated into a Construction Emissions Mitigation Plan and that the FEIS and ROD incorporate the Construction Emissions Mitigation Plan. Mobile and Stationary Source Controls: If practicable, lease new, clean equipment meeting the most stringent of applicable Federal or State Standards. In general, only Tier 2 or newer engines should be employed in the construction phase.	We will comply with CCDAQEM permit requirements and design criteria included in Table 2-4 of the FEIS.
MKC017	49	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Due to the serious nature of PM10 and 8-hour ozone conditions in Clark County, EPA recommends that the best available control measures (BACM) for these pollutants be implemented at all times. At a minimum, these measures should be incorporated into the ROD. We recommend that all applicable requirements under local rules and the following additional measure be incorporated into a Construction Emissions Mitigation Plan and that the FEIS and ROD incorporate the Construction Emissions Mitigation Plan. Mobile and Stationary Source Controls: Utilize EPA-registered particulate traps and other appropriate controls where suitable, to reduce	We will comply with CCDAQEM permit requirements and design criteria included in Table 2-4 of the FEIS.

Letter Number	Comment Number	Name and Affiliation	Public or Agency Comment	Forest Service Response
			emissions of diesel particulate matter and other pollutants at the construction site.	
MKC017	50	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Due to the serious nature of PM10 and 8-hour ozone conditions in Clark County, EPA recommends that the best available control measures (BACM) for these pollutants be implemented at all times. At a minimum, these measures should be incorporated into the ROD. We recommend that all applicable requirements under local rules and the following additional measure be incorporated into a Construction Emissions Mitigation Plan and that the FEIS and ROD incorporate the Construction Emissions Mitigation Plan. Administrative controls: Identify all commitments to reduce construction emissions and incorporate these reductions into the air quality analysis to reflect additional air quality improvements that would result from adopting specific air quality measures.	We will comply with CCDAQEM permit requirements and design criteria included in Table 2-4 of the FEIS.
MKC017	51	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Due to the serious nature of PM10 and 8-hour ozone conditions in Clark County, EPA recommends that the best available control measures (BACM) for these pollutants be implemented at all times. At a minimum, these measures should be incorporated into the ROD. We recommend that all applicable requirements under local rules and the following additional measure be incorporated into a Construction Emissions Mitigation Plan and that the FEIS and ROD incorporate the Construction Emissions Mitigation Plan. Administrative controls: Identify where implementation of mitigation measures is rejected based on economic infeasibility.	We have consulted with CCDAQEM and have included their recommendations in the design criteria Table 2-4 of the FEIS. The design criteria will be incorporated into the Record of Decision. There were no air quality mitigation measures identified, and therefore, none rejected based on economic feasibility.

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MKC017	52	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Due to the serious nature of PM10 and 8-hour ozone conditions in Clark County, EPA recommends that the best available control measures (BACM) for these pollutants be implemented at all times. At a minimum, these measures should be incorporated into the ROD. We recommend that all applicable requirements under local rules and the following additional measure be incorporated into a Construction Emissions Mitigation Plan and that the FEIS and ROD incorporate the Construction Emissions Mitigation Plan. Administrative controls: Prepare an inventory of all equipment prior to construction, and identify the suitability of add-on emission controls for each piece of equipment before ground-breaking. (Suitability of control devices is based on: whether there is reduced normal availability of the construction equipment due to increased downtown and/or power output, whether there may be significant damage caused to the construction equipment engine, or whether there may be a significant risk to nearby workers or the public.) Meet CARB diesel fuel requirements for off-road and on-highway (i.e., 15 ppm), and where appropriate use alternative fuels such as natural gas and electric.	We will comply with CCDAQEM permit requirements and design criteria included in Table 2-4 of the FEIS.

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MKC017	53	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Due to the serious nature of PM10 and 8-hour ozone conditions in Clark County, EPA recommends that the best available control measures (BACM) for these pollutants be implemented at all times. At a minimum, these measures should be incorporated into the ROD. We recommend that all applicable requirements under local rules and the following additional measure be incorporated into a Construction Emissions Mitigation Plan and that the FEIS and ROD incorporate the Construction Emissions Mitigation Plan. Administrative controls: Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow.	We will comply with CCDAQEM permit requirements and NDOT encroachment/traffic control permits.
MKC017	54	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Due to the serious nature of PM10 and 8-hour ozone conditions in Clark County, EPA recommends that the best available control measures (BACM) for these pollutants be implemented at all times. At a minimum, these measures should be incorporated into the ROD. We recommend that all applicable requirements under local rules and the following additional measure be incorporated into a Construction Emissions Mitigation Plan and that the FEIS and ROD incorporate the Construction Emissions Mitigation Plan. Administrative controls: Identify sensitive receptors in the project area, such as children, elderly, and infirm and specify the means by which you will minimize impacts to these populations. For example, locate construction equipment and staging zones away from sensitive receptors and fresh air intakes to buildings and air conditioners.	The project area is entirely on National Forest System lands and uninhabited. Construction equipment and staging zones are located sufficiently far enough away from adjacent private development so as not to affect fresh air intakes on buildings and air conditioners. In addition, natural air flow in the project and canyon area maintains constant movement of air.

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MKC017	55	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	If specific mitigation measures are used for purposes of determining total emission levels, a firm commitment to implementing the mitigation measures should be included in the FEIS. Recommendation: The FEIS should identify and commit to specific mitigation measures or specific emission reduction target levels not only for fugitive dust emissions, but also for exhaust emissions.	The analysis in the EIS determined that this was not a significant effect and, therefore, no mitigation was identified. We will comply with CCDAQEM permit requirements and design criteria included in Table 2-4 of the FEIS.
MKC017	56	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Habitat Fragmentation: The DEIS indicates that potential wildlife habitat fragmentation may occur in areas that are currently undeveloped—north of SR 157 and along the bench south of SR 157 (at p. 3.3-2). The FEIS should address wildlife movement impacts associated with the proposal and present mitigating measures to maintain wildlife movement at specific locations in the Project area, especially where wildlife movement already occurs. Monitoring to determine where wildlife currently crossover the existing roadways is critical to determining where the Forest Service should commit to wildlife movement features within the design of the proposed project.	There will be some fragmentation to reptiles, invertebrates, and small animals. With the proposed construction of roads, trails, and facilities we cannot reasonably eliminate fragmentation for these species. Wildlife movement features were not a need identified by the Interdisciplinary Team (IDT) or biologists or in consultation with USFWS.
MKC017	57	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Proposed stream and ephemeral wash crossings should be designated to maintain or improve existing wildlife passages, as appropriate.	There are no existing wildlife passages at proposed ephemeral wash crossings in the areas. Because of natural landscape character (e.g., dry washes), road and trail crossings will not affect wildlife passages.

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MKC017	58	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	The FEIS should include a commitment to incorporate into the design of the Project specific wildlife crossing features that are developed to support key movement patterns for each species. Information such as roadkill data can inform placement of larger wildlife movement structures. Monitoring of wildlife usage of existing roadways is important for designing how the Project can incorporate design measures to maintain existing movement.	Because of the natural landscape character, the project will not affect wildlife passages. There is no concentration of large wildlife/big game in the project area; therefore, there is no need for large wildlife movement structures.
MKC017	59	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Identify the connections that would likely remain after construction of the Project and highlight these areas as "connectivity zones" for protection and preservation. In the FEIS, identify specific commitments for preservation of these corridors through mitigation measures and cooperative agreements.	There is no concentration of large wildlife/big game in the project area; therefore, we did not analyze the vegetation connections. Existing connections in the project area are sufficient in meeting the corridor movement of the current wildlife populations. Proposed construction is not anticipated to substantially change the present connectivity.
MKC017	60	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	As applicable, disclose how fencing in the Project area will affect wildlife movement and discuss how fencing will be integrated with any identified "connectivity zones".	Proposed fencing is for reducing and managing recreation impacts. Fencing is open-ended, i.e., does not create an enclosure or exclosure that would adversely impact wildlife movement.
MKC017	61	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Critical Habitat: The proposed project could have direct effects on the habitat of the Spring Mountains acastus checkerspot butterfly. The DEIS identified the potential effects on butterfly habitat as a significant issue in the DEIS due to construction of the Kyle Canyon Wash Trail and utility rights-of-ways. Section 3.7.4 ultimately identifies the permanent acreage loss of butterfly habitat as irreversible and irretrievable. Proposed designs for the Project should avoid and minimize impacts to all federally threatened and endangered species, as well as	There are no listed threatened and endangered species or their habitat affected by this project. Mitigation measures resulting from consultation with USFWS is included in the Record of Decision, which clearly identifies the design features and mitigation that will be implemented.

Letter Number	Comment Number	Name and Affiliation	Public or Agency Comment	Forest Service Response
			Forest Service species of concern and State species of concern. Any mitigation measures that resulted from consultation with the U.S. Fish and Wildlife Service to protect sensitive biological resources should be included in the FEIS and, ultimately, the ROD. While the DEIS describes mitigation measures for potential impacts to sensitive species, it does not provide a clear commitment to implement these measures. The FEIS should also clearly articulate under which alternatives sensitive biological resources would be least impacted and to what extent impacts can be mitigated. Recommendations: - A clear commitment to implement mitigation measures to avoid and minimize adverse effects to the habitat of the Spring Mountains acastus checkerspot butterfly and other sensitive species should be made in the FEIS. These measures should include the identification of sensitive habitats and seasons, a user education program, pet restrictions, and monitoring and enforcement of trail use and pet restrictions. - Mitigation measures that resulted from consultation with the U.S. Fish and Wildlife Service to protect sensitive biological resources should be included in the FEIS, and ultimately, the ROD.	

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MKC017	62	Kathleen Goforth, U.S. Environmental Protection Agency, Region IX	Monitoring and Enforcement. It is important that wildlife protection, vegetation management, and erosion control goals be achieved to minimize the adverse effects of the proposed Project. While we recognize the monitoring and implementation strategy described with respect to invasive and non-invasive species, we believe the public and decision makers would benefit if this strategy is expanded to include specific information on funding, monitoring and enforcement criteria, thresholds, and priorities. Recommendation: We recommend development of a detailed Monitoring and Enforcement Strategy. Such a strategy should include specific information on the monitoring and enforcement program priorities, focus areas (e.g., issues, specific locations), personnel needs, costs, and funding sources. We recommend the FEIS demonstrate that the proposed monitoring and enforcement strategy is adequate to assure that motorized vehicle use will not violate access restrictions or exacerbate already identified road-related resource problems. We recommend the Monitoring and Enforcement Strategy be periodically updated (e.g., annually or biennially).	See response to MKC0017 comment 4.
MKC018	1	Pete Anderson, Nevada Division of Forestry	In reference to an email sent to Mark Blankensop regarding Nevada Division of Forestry's desire to locate our fire apparatus in the proposed Middle Kyle Canyon Facility. At this time we have evaluated the proposal and have determined that stationing our Type 1 and Type 3 apparatus at this location does not meet our response times to Rainbow, Old Town, and Echo subdivisions. Thank you for considering the Division in your plans.	Thank you for your response. This information has been taken into account in the decision.

Letter Number	Comment Number	Name and Affiliation	Public or Agency Comment	Forest Service Response
MKC020		John Hiatt, General Public	I am concerned that the plan to create a new center of activity south of Highway 157 and east of the junction with Highway 158 will not be successful as a destination for visitors because it lacks the key factors that attract visitors during the summer months, namely large trees and shade. Provision of artificial shade structures will help but is not much of a substitute for a forest setting under tall Ponderosa Pines. The commercial style campground proposed in this area (Middle Kyle Canyon) would require extensive plantings of fast growing trees (with active irrigation system) to be attractive in the short term and then would seem just like another KOA facility rather than a Forest Service campground. The emphasis on providing facilities for large motorhomes and trailers at the commercial style campground would seem to be geared toward a demographic that is not really interested in a "forest type experience", but rather a place to park with entertainment facilities. It is not clear to me that the goal of diverting existing visitors away from the overcrowded area of upper Kyle Canyon will be accomplished by the planned campground and picnic facility at the middle Kyle Canyon site.	We agree that visitors will want to visit the upper canyon areas for a variety of reasons including the shade of the Ponderosa pines. The Middle Kyle Complex will provide other recreation options, in a different setting, with a variety of activities intended to attract some users from the upper canyon areas. Providing for shade and other amenities such as trails, education programs, and a visitor center are key to making the Middle Kyle Complex a desirable attraction. We have been and will continue to work with experts in designing facilities and developing activities that are socially sustainable that will continue to attractive our local users. We also recognize that most of our guests come from urban areas and are looking for activities as opposed to a traditional Forest Service setting. The commercial-style campground will be designed to accommodate a wide range of camping opportunities from tent camping to Class A RVs, and provide additional amenities not available at other campgrounds on the SMNRA.
MKC020	2	John Hiatt, General Public	The draft EIS indicates that the entire proposed project will require almost 1,000 acres of disturbance, much of it temporary but really doesn't address how that area of temporary disturbance will be rehabilitated. Given that the area under discussion is semi-arid in character natural recovery from disturbance is quite slow. It would be helpful to see some concrete plans for rehabilitating disturbed areas with appropriate native plants.	We share your concern about the slow natural recovery in disturbance areas due to the semi-arid nature of the area. We will implement the design criteria listed in Table 2-4 of the FEIS to minimize disturbances and use native plants. Because of the wide range of proposed land uses and activities we did not disclose concrete plans for rehabilitating disturbed areas (reference note 2 at the end of Table 2-1 in the FEIS). Specific plans for rehabilitating disturbed areas will be developed as part of the construction documents.

Letter Number	Comment Number	Name and Affiliation	Public or Agency Comment	Forest Service Response
MKC020	3	John Hiatt, General Public	An important part of the planning effort involves new or re-aligned trails. While it is understandable that planners desire to accommodate all likely users mountain bikes are not compatible with either pedestrians or equestrians, especially on steep trails where bicycles travel up to ten times faster than either horses or pedestrians. A significant portion of mountain bike users desire to have a "challenging" trail system with some fast downhill sections. These trails are not sustainable unless paved, at which point they are just narrow roads. It is my understanding that the primary mission of the Forest Service is resource protection with recreation facilities and uses being secondary and needing to be compatible with the goal of resource protection. Careful attention needs to be given to safety concerns when creating multi-use trail systems.	We agree that we need to be careful when creating multiuse trails. We recognize that some uses will be restricted or prohibited on some trails due to legal requirements, resource impacts, and safety concerns. Our intent is to meet the needs of the majority of the mountain bikers but recognize that we cannot meet the needs of some of the more extreme downhill bicyclists.
MKC020	4	John Hiatt, General Public	The planning document indicates plans for a "put and take" fishing pond. In the arid Spring Mountains, where surface water is a rare commodity, this seems to be a bit out of place and more appropriate for a commercial entertainment facility than a Forest Service visitor center and campground/day use facility.	The intent is to provide a water feature that can serve as wildlife/fishing ponds for children and provide educational opportunities.
MKC020	5	John Hiatt, General Public	Figure 1-4 shows the "La Madre WSA" on the area map. That area was designated the La Madre Wilderness Area by Congress in 2002.	This correction has been made in the FEIS.

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MKC020	6	John Hiatt, General Public	The Fletcher Canyon trail is shown as a combined pedestrian/equestrian trail. With no connection to other trails, a trail length of only about a mile and limited parking facilities for horse trailers this doesn't make a lot of sense. The upper portion of Fletcher Canyon is a slot canyon with hardly enough room for a horse to turn around. Pedestrian only would be more appropriate for this trail.	We agree that pedestrians would be the most appropriate user for this trail. However, we are not restricting horses from this trail. The Fletcher Canyon Trailhead will provide only limited space for horse trailer parking.
MKC020	7	John Hiatt, General Public	Figure 2-3 shows an eight foot wide paved trail between the Kyle Canyon Campground and the Middle Kyle area. If this is intended to accommodate both bicycles and pedestrians the speed differential between the two may pose a hazard to both user types unless the trail is striped and clearly marked which side is for pedestrians and which for bicycles.	Thank you for your suggestion. There are several different ways of striping to reduce hazards for user types.
MKC020	8	John Hiatt, General Public	The disc-golf area near the commercial style campground seems a bit out place and will be problematic in terms of maintaining a native plant community in that area. Native grasses don't withstand foot traffic very well and shrubs are not appreciated by the users.	Our intent is to provide a space for low-impact recreation activities, such as disc golf, that do not require a large amount of manipulation of the native vegetation. We are flexible and can adapt to other similar appropriate uses in this area.
MKC020	9	John Hiatt, General Public	The EIS states that a biomass heating and cooling system will be used to maintain comfortable temperatures in the visitor center. Biomass systems are effective for providing heat but rather inefficient for cooling. In that area a below ground heat sink for a high-efficiency conventional AC system would be a better option.	The decision does not include a biomass heating and cooling system. We will actively investigate cost-effective and environmentally appropriate heating and cooling systems during the design phase.

Appendix A3

Nuwuvi Participatory Consultation

RID	OT	S	RT	DT	IA	F	RI	CE

MKC019

Nuwuvi Participatory Consultation

Draft Environmental Impact Statement
Middle Kyle Complex

Spring Mountains National Recreation Area
Humboldt-Toiyabe National Forest
Clark County, Nevada

Nuwuvi Participatory Consultation Meeting I participants.

Researched and Written By:
The Nuwuvi Working Group and Jeremy Spoon, Ph.D.

Submitted To:
Spring Mountains National Recreation Area, Humboldt-Toiyabe National Forest, Clark County, Nevada

November 2009

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EXECUTIVE SUMMARY

The following report includes all project documents for Nuwuvi Participatory Consultation, Middle Kyle Complex, Draft Environmental Impact Statement (DEIS), Spring Mountains Recreation Area, Humboldt-Toiyabe National Forest, Clark County, Nevada. Nuwuvi represents seven culturally affiliated federally recognized and unrecognized American Indian nations, also known as the Las Vegas Paiute, Moapa Band of Paiute Indians, the Pahrump Paiute Tribe, Paiute Indian Tribes of Utah (five bands), Kaibab Band of Paiute Indians, The Chemehuevi Indian Tribe, and The Colorado River Indian Tribes (Chemehuevi only). The consultation process is described and an essay is included about Nuwuvi and their relationship with the Spring Mountains, utilizing research conducted by the Nuwuvi Working Group and Jeremy Spoon, PhD. All meeting agendas are included and goals and outcomes captured in the meetings are listed. Comments about the DEIS, both general and specific, are documented, followed by a photo record from the meetings and a reference list.

CONSULTATION DESCRIPTION

The following describes the participatory processes utilized to capture comments from a Working Group comprised of representatives from seven nations of Nuwuvi (Southern Paiute and Chemehuevi) about the Draft Environmental Impact Statement (DEIS) for the Middle Kyle Complex, Spring Mountains National Recreation Area (SMNRA), Humboldt-Toiyabe National Forest, Clark County, Nevada. The method included two meetings (June 23-25 and October 18-20, 2009) with seven tribally designed representatives at the Resort at Mount Charleston located inside the Spring Mountains National Recreation Area. Jeremy Spoon, PhD facilitated each meeting. The dates for the meetings were decided upon in advance and letters were sent to each Tribal Chairperson and designated Working Group member thirty days in advance.

The first meeting, convened June 23-25, 2009, served as an introduction to the proposed developments in the Middle Kyle Canyon (SMNRA). At the onset, Nuwuvi Working Group members and U.S. Forest Service representatives discussed their goals and expectations for the consultation. The group visited the sites of proposed development and modification in the Middle Kyle Canyon. Thereafter, Nuwuvi Working Group members held executive sessions to begin commenting on the proposed and market-supported alternatives for the Middle Kyle Complex.

Nuwuvi Working Group members and Tribal Chairpersons received copies of the DEIS and Vegetation Management Plan the week of October 5, 2009. Copies of the Draft Heritage Resource Survey of the USFS Lower Kyle Canyon Project were received on October 18, 2009. It should be noted that the following comments reflect a consultation period bounded by the stated dates regarding the receipt of documents and deadline for public comment (November 16, 2009).

The second meeting held October 18-20, 2009 was an opportunity for the Nuwuvi Working Group to comment on the DEIS and associated documents for the Middle Kyle Complex. Jeremy Spoon and Richard Arnold created a framework for the meeting in advance. Based on the results of the first meeting, this method included broad themes to capture general comments and prioritized areas. Participants provided additional comments and suggestions for text refinement. The meeting also afforded a forum to discuss the government-to-government consultation processes using this project as an example. The Project Manager for the Middle Kyle Complex attended lunch and the afternoon session on the final day of the meeting. He provided background on the process for writing the Final EIS and answered questions about the Proposed and Market Supported Alternatives. The Nuwuvi Working Group also shared brief comments on the Vegetation Management Plan and the Draft Heritage Resource Survey.

The following document represents comments captured at the meeting added to the initial draft framework written by Spoon and Arnold. An additional essay is added—drawing from research conducted in collaboration with the Nuwuvi Working Group and Jeremy Spoon between October and February 2009. This research is currently being applied to interpretive planning for the Middle Kyle Complex and other areas in SMNRA.

The review process for this document consisted of sending a draft electronic version to Nuwuvi Working Group members for comment on November 2, 2009. If possible, Working Group members shared the document with their respective Tribal Chairpersons and/or Tribal Council Members. These nations included: the Las Vegas Paiute Tribe, the Pahrump Paiute Tribe, the Kaibab Band of Paiute Indians, Paiute Indian Tribes of Utah, the Chemehuevi Indian Tribe, and the Colorado River Indian Tribes. Further, the document was presented at the Paiute Indian Tribes of Utah Tribal Council on November 9, 2009, which included Tribal Chairpersons from five bands. Presentations are pending at other Tribal Councils due to the short timeframe for review. The truncated timeline from the October 18-20, 2009 meeting to the November 16, 2009 deadline for public comment made it difficult for all Working Group members to discuss the draft document with members of their tribal governments and/or present at Tribal Council. Comments from this review period are incorporated where appropriate into the final report.

NUWUVI AND THE SPRING MOUNTAINS LANDSCAPE

Introduction

The following essay presents information collected through ethical participatory processes by Jeremy Spoon, Ph.D. and the Nuwuvi Working Group between October 2008 and February 2009. The purpose is to describe the Nuwuvi relationship to the Spring Mountains landscape from their perspective. The hope is to provide readers a better understanding of the Nuwuvi way of knowing that informs the decision-making process. Working Group members contacted a total of 21 Nuwuvi informants (5 males and 16 females) between the ages of 48 and 82. Interviews were semi-structured (Bernard 2002), following six thematic topics including the Spring Mountains landscape. The text is written in the first-person plural in order to express that Nuwuvi co-conducted the research and writing of the document, rather than a non-American Indian. This literary device also reinforces an image of a living culture (Nuwuvi Working Group and Spoon 2009a).

Research from various anthropologists provided background to the ethnographer and is incorporated where applicable. These contributions include publications and reports by Stoffle et al. (2004) and Stoffle et al. (2009) about the Spring Mountains, classic ethnography by Sapir (1992), Steward (2002 [1938]), Kelly (1939), Fowler and Fowler (1971), and Kelly and Fowler (1986), as well as more recent efforts, including the Inter-Tribal Council of Nevada (1976), Stoffle and Zedeno (2001), Stoffle et al. (1999), Stoffle et al. (2001), and Knack (2001).

Nuwuvi Past, Present, and Future

We are a Numic speaking people who call the southern Great Basin home. Our oral history explains that we were created at *Nuvagantu* or *Nuvankai* (the Spring Mountains landscape) at the beginning of time. We call ourselves *Nuwuvi* or *Nungwu*, meaning 'the people.' In English we are known as the Southern Paiute and Chemehuevi. These names came from other non-native peoples; however we have adopted them as our English identity. Our territory spans four states (Nevada, Utah, Arizona, and California) and our current population has diminished to approximately 3,000 people. We presently live on various reservations and in rural communities and nearby cities.

Starting in mid 19th century, we were relocated by the federal government to reservation lands. Some of us were allotted territories within our traditional areas, while others were denied recognition by the government, which in the case of the Pahrump Paiute, continues to this day. Some of our people also resisted going to reservations, retreating to different parts of our traditional territory. Most of these reservations were thought to be unproductive lands that other settlers did not want to inhabit at that time.

The Moapa Paiute of southern Nevada were relocated to lands east of the Sheep Mountains near the Virgin River. This area was originally intended for all southern Nevada Paiutes. The Las Vegas Paiute were first given a small area of land near downtown Las Vegas, which was gifted to them by the Euro-American settler Helen J. Stewart. These lands were later expanded to an area between the Spring and Sheep Mountains. The five bands of Southern Paiute in Utah were all allotted land during this era. After some time, the federal government terminated all but one of them. These nations were later reinstated under the umbrella of the Paiute Indian Tribes of Utah. The Kaibab Paiute of Arizona share their lands with Pipe Springs National Monument and a nearby Mormon community. For the Chemehuevi Tribe, many individuals were relocated to the Colorado River Indian Tribes reservation (which houses Chemehuevi, Hopi, Navajo and Mojave peoples) when some of their land was covered by water with the construction of a dam in Arizona and California. Some returned later with the reestablishment of the Chemehuevi Tribe reservation, while others stayed where they were relocated or out-migrated to other areas.

The most far-reaching change that the contact period caused is that it disconnected some Nuwuvi from our land. It was a time of great hardship, where we saw many of our peoples die in unfortunate circumstances. The fact that we persist today shows the resilience of our culture to these outside forces. Some say that we are still in the contact period. Examples of the most significant events were Spanish exploration in the late 18th century, the enslavement of our people by the Spanish and others, the Mormon migration, the official opening of the Santa Fe Trails, horse trading, the gold rush, Mormon expansion, and old diseases in the New World. Enslavement and disease in particular drastically reduced our population and disrupted many social institutions. Some say as much as 80% or more of our population perished during this era. European settlers also took away ceremonial locations and made ceremonial acts illegal after the Ghost Dance ceremony of 1890 (Stoffle et al. 2004; Kelly and Flower 1986).

During this time when our population was rapidly declining, settlers encroached upon our lands. As more and more people settled, our lands were taken away and we were forced out. In some areas, we were forbidden to access resources, such as Pinyon-Juniper forests and springs, and we were generally not allowed to practice our spiritual traditions. Our farming tradition also was not respected, as the settlers did not understand our method compared to theirs. No treaties were made for the lands lost in the Spring Mountains landscape area, resulting in the loss of large tracts of land through settler land claims. Without our lands and with restrictions on our spiritual traditions, our culture had to adapt to survive the outside occupation.

Our Livelihoods

Our system of survival is complex and continues to adapt and change depending on the circumstances affecting us. It provides for us what we need to survive in this landscape. Before contact with western peoples and contrary to what is written in most history books, we were more than merely hunters and gatherers wandering throughout the desert. Rather, our way of life was sophisticated—receiving the songs, stories, foods, and medicines that we needed to survive by the Creator. This included hunting numerous animals such as Mule Deer, Mountain Sheep, Jackrabbit, Desert Tortoise, and Cotton Tail, as well as gathering resources such as *teuv* (pine nuts) and *op* (mesquite beans). We also farmed various crops, such as squash, corn and beans while harvesting hundreds of medicinal plants for healing. There are areas that we returned to each year for resources and managed them with values of respect so that they continued to provide what we needed. Many of these traditions persist today and are mixed with other strategies to survive. Much of our value system that reinforces respect and maintains balance remains consistent even when our subsistence practices adapt and change.

During the reservation era we adapted to our changing circumstances and began other ways of life to survive. These included ranching, farming, mining, serving in the military, and more. Many of our peoples also out-migrated to cities in search of employment, especially in the case of non-federally recognized tribes. Our peoples helped in the development of the areas around us, providing labor and crucial knowledge of the land. In many cases, we taught the settlers how to live in this environment based on our extensive knowledge. It is in this era that we received our western names.

Today, each federally recognized tribe has a tribally owned business enterprises that they share to benefit tribal citizens. These include casinos, golf courses, gas stations, various stores, museums, cultural centers, and more. All of these businesses support the infrastructure of the tribes and provide resources for social, cultural, and environmental programs.

Persistence and Change

Contact with westerners caused far-reaching change among our peoples. Many political and economic forces influenced our culture and ways of life. Because of these factors, there is much generational change that has occurred. Similar to many indigenous cultures, American Indian people are faced with many challenges today. The younger generations have many distractions and often know less about our connections with our traditional lands and many do not speak the Nuwuvi language. The older generations are very concerned about these changes and the affects on the culture. They remain very interested in programs that reinforce the culture and language.

As a point of resistance to the contact period, some Nuwuvi have not only retained and transmitted much about the culture, but also initiated projects to safeguard these traditions. The participation of the seven nations in this project at the Spring Mountains is an example of our unity and how we want to preserve our culture. It also demonstrates the importance of this area and our desire to collaborate with the federal government.

Nuwuvi and Nuvagantu (The Spring Mountains Landscape)

Mountains are sacred places to us. They provide everything that we need to survive as a people and a culture. Mountains are our spiritual places, where we harvest resources and conduct ceremonies that are central to our lives. Every mountain in the Nuwuvi territory has a name and was the place of significant events that helped to shape our history and relation to our land.

Nuvagantu (literally 'where snow sits' or the Spring Mountains landscape) is our holy land, and considered a true cultural landmark. It is important to us because it is the site of our creation, which defines who we are as a people. *Nuvagantu* is also a crucial reserve of resources that we use and a place to visit with family. Our connection to this landscape reinforces our ties to the Creator, the land, and our people (Stoffle et al. 2004; Stoffle et al. 2009).

Since the beginning of time, the Creator made Nuwuvi at *Nuvagantu* and here we became attached to this place and the place to us. The land is alive, which means that there is power in all things such as rocks, water, air, plants, animals, and humans. All of these beings are interconnected; they can talk with each other and work together to balance the world. The land has eyes and ears. It can talk and knows our thoughts. This makes it in balance and provides guidance. When treated badly, the mountains and everything within them suffers. Misuse of these areas upsets the balance and can cause great harm as well as diminish their power.

We come here for spiritual power and resources, but do not stay, as the mountain must rest. You must have a good heart to visit here and ask permission to take or use anything, which can never be more than you need. This land has been a protected area long before it was designated a National Recreation Area. Today, the U.S. Forest Service manages the land. We appreciate their efforts to protect the landscape and work collaboratively to co-manage the area with them to make sure that it remains in balance both physically and spiritually

Nuvagantu provides everything we need to survive as a people. It is our school, place of worship, pharmacy, and grocery store, along with many other things. The Creator made it this way for us. For this reason, we treat the land with the utmost of respect and make sure that our actions do not harm it in any way. We travel here when we need to, returning throughout each year at the appropriate times. It is part of a complex ecological system that the Creator made for us to manage.

We rely on thousands of years of experience when we interact with the landscape to ensure that it is kept as it was given to us at creation.

Our Values of Respect and Balance

We consider the land and everything within it to be alive and deserving respect. This value is the foundation for how we treat each other and the land. In *Nuvagantu*, this means we do not harvest more than we need and we must always feed the Mountain and give an offering before taking anything away. We also leave things behind for the other living beings in this place, as we know that they need the land's resources and we are connected to them through creation. In any interaction with the land, we must have the appropriate state of mind, rooted in respect. When we take something away from this place, we make sure to share it with people who were not able to make the journey. This is the same way we treat the people and the land in our territory; however this landscape is extra special because of what happened here and the power that it holds.

Sometimes the land is unable to produce because it is not in balance. This can be the result of an over harvest of resources, the influx of non-native invasive plants, littering, pollution, or a host of other factors. To restore balance, the land needs to hear our songs and voices, and of course, be treated with respect. Native plant re-vegetation programs and controlled burning in a culturally acceptable manner also help to re-establish balance.

Songs and Landscape (Songscapes)

Our songs are sacred to us. They are vocal snapshots that talk about places and the things that happened there. These songs include the words of the animals that cannot talk anymore and are gifts from the wind, water, and land. The Creator and other deities filled the area with these songs. Some songs have dances that express our connection to the land and other living beings. They are in the Southern Paiute language and are transmitted orally from generation to generation. Specific individuals know certain songs, while more people know others. There are songs that we sing to the land that make it in balance. When they are not sung, we suffer and the land suffers. Some of our songs describe locations in the Spring Mountains and the other living beings that reside here.

The Salt and Silver Songs are our most sacred songs. They are sung at funerals to appease the spirits and to return the soul back to the Creator. Only certain individuals know these songs that are passed down from generation to generation. As the song is sung, the soul takes a physical journey through *Nuvagantu*, crossing Nuwuvi territory. The order of the songs is very important, as they lead the soul on its journey. As life began at *Nuvagantu*, the soul must travel through here to balance the universe and ensure a safe journey to the afterlife. We believe that the origin of the songs is near *Nuvagantu*. These songs reinforce the deep connection we have with this place and how it is part of us.

Ecological and Management Knowledge

Our culture has an intimate knowledge of the flora, fauna, and other natural features in our lands. These resources were provided for us by the Creator to help us survive. The harvesting of wild plants and the hunting of animals are some of the traditions that have sustained us since the beginning of time. In all of these activities, we treat living things with respect, never harvesting or hunting too much. When we do take the life an animal, we ask for its permission while explaining our intentions and giving thanks for helping us. We never waste anything and use every part and share our taking as a gift we can and share with our families and friends. As children, we are taught the rules about who can hunt, when, and at what age. The landscape provides us with food and resources that make us whole and help us in our daily lives.

In *Nuvagantu*, we harvest many plant species for food including Pinyon nuts, Indian Spinach, Mesquite beans, Currant, Water Cress, various cactus fruit, berries, Yucca, and Cattails. There are also various plants that provide us with tools for survival, such as Sumac and Willow for basket making and Bitterbrush, Sage Brush, and Banana Yucca for pine nut roasting, to mention a few. Our complex way of life also includes intimate knowledge about animals, which we establish relationships with before we hunt. We hunt Mule Deer, Mountain Sheep, rabbit, quail, doves, desert tortoise, and more. In all hunts, we make sure not to take away too much and to treat the animals we are hunting with respect by talking to them and thanking them for giving up their lives to help us.

The *teuv* (pine nut) harvest is one of our most important traditions. It renews our ties to the land, providing us with a crucial food source and restores harmony within the mountain. The harvest also is an opportunity to rekindle our bonds with family members and individuals from the various Southern Paiute/Chemehuevi nations. There are various places in the *Nuvagantu* landscape that we prefer to harvest pine nuts in. These harvests are an opportunity for us to transmit our culture to the younger generations. It is also a time when we renew our ties with friends and family that live in other parts of our land. We offer morning prayers, sing songs and play games together. It is a very happy time.

We know that poor environmental management moves the world out of balance, causing the land and our people to be unhealthy. It is vitally important for our people to establish the appropriate relations with these living elements in order to survive, which includes talking to them in the Paiute language with a good heart and the appropriate state of mind. You must therefore explain your actions to the element with which you establish a relationship. Tools made from flora and fauna must be ceremonially retired to the landscape when they are no longer in use and sometimes suitable replacements are made as offerings to the landscape. We have relationships with these living things both in the past and in the present.

Our Welcome Statement

The following is a Welcome Statement intended for the public written in collaboration with Jeremy Spoon, Ph.D. and the U.S. Forest Service about our relationship with the Spring Mountains landscape. It concisely shares the Nuwuvi relation with our ancestral holyland:

> Welcome to our sacred land, *Nuvagantu*. It is a place that is alive and has power. The land has feelings to greet you, eyes to see you, and ears to hear you. It talks from every place in your sight. All of the plants, animals, rocks, water, snow, and air in this landscape are living and need to be in balance to remain healthy. To sustain this balance, we treat all beings with the utmost respect, as we have since the beginning of time. We are inseparable from these mountains, which are powerful, yet delicate. Our language and songs resonate through the springs, trees, rocks, and animals. We harvest resources here and renew our cultural and familial ties.
>
> Nuwuvi (Southern Paiute/Chemehuevi) continue to care for this land as we have for thousands of years, long before it became a National Recreation Area. We along with the U.S. Forest Service actively strive to keep the land in balance in culturally appropriate ways. Although you may not see us, you will surely hear our voices and feel our presence. Take a moment to get acquainted with this special place and allow it to know you. Use your senses and open your heart. This is a landscape where your spirit can be replenished and you can learn valuable lessons. Please walk softly on these grounds as we do and it will continue to thrive for generations.

Conclusion

This essay describes our ancestral connection to the Spring Mountains landscape, and in a broader sense, our relationship to the Nuwuvi traditional homeland. It helps to frame why we think the way we do about this project and others associated with public lands in the four state territory. Our sincere hope is that our way of knowing this landscape is respected at the same level as others. The information we shared was communicated to help educate others about our history and traditions. We hope that our efforts are considered in the developments for the Middle Kyle Complex, as well as other parts of the SMNRA. This landscape is an integral part of what makes us who we are and we care deeply about the management of it.

MEETING AGENDAS

Nuwuvi Participatory Consultation Meeting I
Environmental Impact Statement (EIS)

Middle Kyle Canyon Complex
Spring Mountains National Recreation Area
Humboldt-Toiyabe National Forest

The Resort at Mt. Charleston
Las Vegas, Nevada
June 23-25, 2009

Tuesday June 23, 2009

5:00-6:00 pm	Nuwuvi Working Group Executive Session
6:00-7:00 pm	Dinner
7:00-9:00 pm:	Film Presentation and Discussion

Wednesday June 24, 2009

8:00-9:00 am	Breakfast
9:00-10:00 am	Nuwuvi Working Group Executive Session
10:00 am-12:00 pm	1. Goals and Roles of Nuwuvi Consultation 2. Overview of Project (proposed development and vegetation plan) 3. Results of Cultural Resource Survey
12:00-1:00 pm	Lunch
1:00-3:00 pm	Site Visit
3:00-4:00 pm	Debrief Site Visit and Next Steps
4:00-5:00 pm	Break
5:00-6:00 pm	Nuwuvi Working Group Executive Session
6:00-7:00 pm	Dinner
7:00-9:00 pm	Film Presentation and Discussion

Thursday June 25, 2009

8:00-9:00 am	Breakfast
9:00 am-12:00 pm	Nuwuvi Working Group Executive Session—Comments on Alternatives and Vegetation Plan
12:00-1:00 pm	Lunch
1:00-4:00 pm	Nuwuvi Working Group Executive Session—EIS Text Development and Timeline for Completion and Submission
4:00 pm	Meeting Adjourned

Nuwuvi Participatory Consultation Meeting II
Environmental Impact Statement (EIS)

Middle Kyle Canyon Complex
Spring Mountains National Recreation Area
Humboldt-Toiyabe National Forest

The Resort at Mt. Charleston
Las Vegas, Nevada
October 18-20, 2009

Sunday October 18, 2009

5:00-6:00 pm	Arrival and Check-In
6:00-7:00 pm	Dinner
7:00-9:00 pm:	Meeting Introduction

Monday October 19, 2009

8:00-9:00 am	Breakfast
9:00-10:00 am	Review of Proposed and Market-Supported Alternatives
10:00 am-12:00 pm	Comments on Proposed Developments
12:00-1:00 pm	Lunch
1:00-4:00 pm	Comments on Proposed Developments/Text Refinement
4:00-5:00 pm	Break
5:00-6:00 pm	Discussion on Government-to-Government Consultation
6:00-7:00 pm	Dinner
7:00-9:00 pm	Film Presentation and Discussion

Tuesday October 20, 2009

8:00-9:00 am	Breakfast
9:00 am-12:00 pm	Vegetation Management Comments/Text Refinement
12:00-1:00 pm	Lunch
1:00-2:00 pm	Discussion with Hal Peterson, Project Manager on Consultation Processes
2:00-4:00 pm	Text Refinement/Next Steps
4:00 pm	Meeting Adjourned

CONSULTATION PROCESS GOALS AND OUTCOMES

The following are goals for Nuwuvi Participatory Consultation Meeting I captured from Nuwuvi Working Group members and select U.S. Forest Service staff at the beginning of the meeting (June 23-25, 2009):

- To clearly and accurately communicate the project.
- To improve communication.
- To build relationships.
- To reach agreement on the Environmental Impact Statement.
- To make the U.S. Forest Service available to the tribes for information.
- To improve relationships.
- To communicate to bring people together.
- To improve understanding of place.
- To work together for understanding.
- To communicate to open doors and nurture relationships.
- To engage in a planning process that helps to understand cumulative effects.

The following are outcomes from Nuwuvi Participatory Consultation Meeting I participants (Nuwuvi and U.S. Forest Service) documented at the end of the meeting:

- Team building.
- Learned about sites with sensitive cultural relationships.
- Saw a lot of areas; glad to be part of the process.
- Better understanding of proposed development.
- Field visits help us to understand the process.
- Enjoyed time together.
- People were brought together.
- Momentum is developing between the tribes and the U.S. government.
- Great to be with the native people.
- Enjoyed time together; opens doors on this project.
- Wish we were part of the process earlier.
- Enjoyed sharing and learning and spending time with our elders.

The following are goals for Nuwuvi Participatory Meeting II captured from Nuwuvi Working Group members at the beginning of the meeting (October 18-20, 2009):

- To engage in productive work.
- To enable positive thinking.
- To have productive reading and writing.
- To provide a better understanding of native thinking.
- To convey our voice in the Final EIS.
- To provide an opportunity for the U.S. Forest Service to listen to us.

- To encourage collaboration among the seven culturally affiliated nations and the U.S. Forest Service.

The following are outcomes from Nuwuvi Participatory Consultation Meeting II documented from Nuwuvi Working Group members at the end of the meeting:

- Better understanding.
- Achieved initial goals.
- Opened doors about having new input.
- Consultation process makes U.S. Forest Service accountable.
- Better awareness of native viewpoint and our ways of life.
- Useful comments and text.
- Heading towards goal.
- We are moving in the right direction.
- Productive meeting.
- Nuwuvi and U.S. Forest Service are working productively together.

COMMENTS ON DRAFT MIDDLE KYLE COMPLEX DRAFT ENVIRONMENTAL IMPACT STATEMENT

General Comments

The following are general comments generated by two participatory planning meetings (June 23-25 and October 18-20, 2009). They are listed here because they are relevant to the Middle Kyle Complex Proposed and Market-Supported Alternatives on a macro scale.

MKC019-1

The participatory processes utilized to generate comments from the seven culturally affiliated Nuwuvi nations began in May 2009. The seven culturally affiliated nations recognize that resources and staff support were garnered to conduct this consultation process. Both the Draft Environmental Impact Statement (DEIS) consultation and Interpretive Planning Project (initiated in September 2008) have improved the communication among the federal government and the culturally affiliated nations. Previous engagements with the nations were initiated; however they were not organized in the same method, did not utilize tribally designated representatives from each nation, and did not provide time for participants to discuss their opinions before they were presented to the federal agency. Consequently, we were unable to provide text for the DEIS. We are aware that resources were allotted to hold two meetings with tribally designated representatives after May 2009. These meetings were organized and conducted in a culturally appropriate manner and we approve of the process that ensued to capture our comments for the DEIS. In the future, we request to be contacted earlier in order to be part of the planning process in this participatory framework.

MKC019-2

Within the DEIS, there are various documents referenced that have not included Nuwuvi participation in their development, such as the General Management Plan and Conservation Agreement. We request that the U.S. Forest Service include the culturally affiliated nations in the development and refinement of these documents in the same participatory framework conducted for the latter portion of this project.

MKC019-3

Nuwuvi are interconnected with our ancestral lands. Any ground disturbance can cause changes in our homeland, unearthing human remains and precious material culture, and altering songscapes, storyscapes, and sacred sites. These activities cause the whole landscape to be out of balance. As such, we request that the Forest Service provide opportunities for native monitors from the culturally affiliated nations to be fully engaged in all major developments in the Middle Kyle Complex.

MKC019-4

We have interacted with the Spring Mountains landscape, and specifically Middle Kyle Canyon, for thousands of years. We return to this landscape on a regular basis for spiritual purposes and to harvest resources within our traditional

homelands. We consider ourselves connected to these lands, and these lands are connected to us. Our people were created there and pass through the landscape in our journey to the afterlife. It is our holy land. We applaud the efforts of the Forrest Service in recognizing the importance of preserving Slot Canyon to the culturally affiliated nations and the adverse impacts of the proposed bridge. This collaborative resolution reinforces the need for early tribal consultation on proposed development in SMNRA. MKC019-4

Recreational use of the area is a new development in relation to the amount of time our people have interacted with this landscape. We are concerned about disrupting the serenity of this special area and the impacts of off-highway vehicles (OHV), mountain bikes, equestrian use, and increased trail use. In the Proposed and Market-Supported Alternatives we request that a impact analysis be conducted and the nations be informed about the impacts of these increased recreational activities. We also encourage the Forest Service to restrict the use of OHVs, mountain bikes, and horses. These restrictions will limit soil erosion and sedimentation on trails, the onset of unofficial social trails, the spread of invasive non-native plants, and viewscape pollution due to dust. Trail planning can also take into account visitor traffic, spreading out use more evenly. We are aware that Nuwuvi also recreate in the area and will therefore be informed by their respective nations about the impacts of their activities. MKC019-5 MKC019-6

The Nuwuvi Working Group proposes specific comments on various components of the Proposed and Market-Supported Alternatives. In general, we support a blending of both the Proposed and Market Supported Alternatives. We are aware that SMNRA needs to update its facilities to handle current and future visitors. We consider this as an opportunity for more visitors to learn about Nuwuvi and other peoples' relationships with this special place. However, we strongly suggest that the proper aesthetic of solitude be maintained with the new developments. In order to achieve this goal, we support the Market Supported Alternative plans for the village size and the number of campgrounds and picnic facilities. MKC019-7

A prioritized issue that emerged from the meeting concerns the proposed commercial-style campground in the Market-Supported alternative, which will accommodate Class A recreational vehicles (RVs). We do not support the development of this commercial-style campground. We are concerned that this development will significantly impact the natural and cultural resources in the landscape. This proposed action will increase visitor flow and may threaten various components of this fragile landscape. It will affect the viewscape, interrupting how the Spring Mountains are connected to other landscapes and the role of this landscape in our sacred songs. We are also concerned about the air pollution that Class A RVs cause and the litter and human waste generated from these tourists. Less development will ensure perpetuating the proper aesthetic for the landscape. We consider the lack of development to be important to maintain a degree of isolation for the area and its connection to other landscapes. Isolation MKC019-8

and the connection with other landscapes are vital components of our songs and stories. MKC019-8

If visitation does increase as projected, we suggest implementing environmentally sustainable regulations and technologies that minimize the impacts from the increased visitation for the stated developments. Suggestions include requiring RV vehicles to use sustainable bio-fuels and providing prioritized parking for hybrid vehicles. Biodegradable and non-biodegradable waste minimizing facilities, including increased access to and interpretation about recycling and composting, as well as composting toilets, are innovations that could assist in achieving our shared management goals of this precious landscape. These technologies should be implemented in culturally appropriate ways and in collaboration with the Nuwuvi Working Group. MKC019-9

Finally, in both the Draft Environmental Impact Statement and the Draft Heritage Resource Survey the terms ‘heritage resources’ and ‘cultural resources’ are unclear. They are used interchangeably and it is hard to discern if one specifically denotes Nuwuvi cultural resources and the other both Nuwuvi and non-Nuwuvi heritage resources. We consider the landscape to be part of our heritage and connected to us. It is unclear whether the Forest Service accepts our definition of heritage/cultural resources that includes natural features (mountains, rocks, caves, springs, plants, animals, etc.) and the archaeological record. We are concerned that the ambiguity in the definition of these terms may negatively impact what we consider to be our ancestral homeland. MKC019-10

Specific Comments

The following comments are attributed to the stated chapter, section, and page in the Draft Environmental Impact Statement:

Chapter 1 Purpose and Need for Action

Section 1.2 Background

Page 1-2

- **Nuwuvi Working Group Comment:** Text should be expanded to identify the Spring Mountains as a landscape that is central to our people. The Mountains are our creation place and a fundamental reservoir of resources. We do not separate ourselves from this landscape—we are interconnected. Our holy land is also a songscape, emerging in the sacred songs that describe and transmit the Nuwuvi relation with place. These songs include the ancient Salt Song, which vocally transports the soul upon death across our traditional territory, brining it to rest in this world. MKC019-11

Section 1.2.2 Agency Direction Document *(General Management Plan for the Spring Mountains National Recreation Area)*

Page 1-5 (Second Bullet)

- **Nuwuvi Working Group Comment**: Revise text to read: 'Promote culturally affiliated American Indian use and protect heritage resources.' Participation and protection are both essential ingredients to sustaining balance, biodiversity, integrity and beauty of the SMNRA. We consider the U.S. Forest Service to be our partners in the management of the area. Promoting our use helps to satisfy the goals of both the federal agency and our people. Our use also ensures the transmission of our ancient culture to the future generations and the public. It is important to denote culturally affiliated American Indian uses and heritage resources. Seven nations of Nuwuvi consider the landscape to be our creation place. These federally and non-federally recognized nations are the culturally affiliated American Indian nations. MKC019-12

Section 1.2.3 Agency Guidance Documents

Page 1-6

- **Nuwuvi Working Group Comment**: We are concerned that the MSHCP had the limited scope of Clark County. The habitats of various species occur on both side of the landscape, encompassing Clark and Nye Counties. We request that the conservation priorities of Nye County also be taken into account for this project. MKC019-13

Page 1-7

- **Nuwuvi Working Group Comment**: None of the bulleted points that indicate the guidelines in the Conservation Agreement for select species or the six project planning commitments and three educational commitments mention Nuwuvi, our desire to contribute to the management of the ecosystem, or our intention to inform the public about our relationship with the landscape. We request a role in developing the objectives of these stated guidelines and commitments to properly reflect the goals of the Forest Service and the culturally affiliated nations. MKC019-14

- **Nuwuvi Working Group Comment**: We request that sufficient funding be secured to hire a Nuwuvi interpreter and that opportunities be created for Nuwuvi youth to learn about potential employment positions at SMNRA in cultural and natural resource management. MKC019-15

Page 1-8 (First Bullet)

- **Nuwuvi Working Group Comment**: SMNRA staff should also become familiar with Nuwuvi relationships with the Spring Mountains landscape documented in Nuwuvi Working Group and Spoon (2009b). MKC019-16

Page 1-8 (Second Bullet)

Nuwuvi Working Group Comment: The information distributed to the public about biodiversity protection and ecosystem management should also include past and present information about Nuwuvi relationships with and management of the Spring Mountains landscape. MKC019-17

Page 1-8

Nuwuvi Working Group Comment: The significant elements of biodiversity hotspots listed should include the Nuwuvi perspective on threatened and endangered species. We recommend that this information be collected in a participatory manner in collaboration with Forest Service natural scientists and other contractors. MKC019-18

Section 1.2.4 Other Relevant Resource Documents *(Spring Mountains National Recreation Area Landscape Assessment*)

Page 1-9

- **Nuwuvi Working Group Comment:** We have a strong ancestral connection with the Spring Mountains landscape and were not involved in the Landscape MKC019-19

Assessment. Provisions should be made to include the cultural practices and traditional ecological knowledge of our people in the following areas: MKC019-19

1. Vegetation management at multiple scales, from species to landscape.

2. Fire-fuel reduction. MKC019-20

3. Recreation management, especially to ameliorate potential threats to culturally and ecological important species and valued landscape features, such as sacred rocks, water sources, caves, and petroglyph sites. MKC019-21

- **Nuwuvi Working Group Comment:** The text states that the Conversation Agreement (CA) and General Management Plan (GMP) will be used to guide the future revisions of these documents. Previously, we have not participated in the development of the CA and GMP. Our ancestral connection to the landscape embodies extensive ecological and management knowledge that can help to forward the management goals of the Forest Service. The Spring Mountains are also central to our identity, as we consider no separation between our culture and the land. Consequently, the Forest Service should make efforts to include our people in CA and GMP development and implementation. This collaborative relationship will foster government-to-government consultation, forwarding the goals of both the federal agency and the indigenous inhabitants of the region. MKC019-22

Section 1.3.1 Need Statement 1

Page 1-10

- **Nuwuvi Working Group Comment**: The text states four primary goals relating to providing new recreation facilities and visitor services. Item (d) focuses on the reduction of natural resource impacts to major concentrations of plant and wildlife species of concerns. This need fails to identify heritage resources, both American Indian and Euro-American. The text should be expanded to include these resources beyond those currently identified in the document. MKC019-23

Page 1-12 Existing Condition

- **Nuwuvi Working Group Comment:** The text indicates that Hispanics are the most frequent minority users of the SMNRA while other minorities are not frequent visitors. This statement is shortsighted; we have had a presence on this landscape for thousands of years. We continue to frequent the landscape for spiritual reasons, to collect resources, and to recreate. It can be inferred that we were not part of the research that yielded these results. MKC019-24

- **Nuwuvi Working Group Comment:** The text attempts to recognize and provide examples of Hispanic and Euro-American user groups and their recreation practices. Given the strong cultural ties that we have to the area and our unique use, no consideration is given or identified about this relation. MKC019-25

Page 1-13 Mountain Biking

- **Nuwuvi Working Group Comment:** We do not support the use of mountain bikes within the SMNRA due to their adverse impacts on cultural resources. Mountain bikes have aggressive tread designs similar to those found on Off-Highway Vehicles (OHVs) that cause adverse impacts on soil quality and productivity, accelerating erosion and sedimentation. We have observed OHVs steering away from designated trails and creating new trails, which increases adverse impacts to cultural and natural resources. We request to be included in the planning of mountain bike trails to help the Forest Service forward its mission of protecting the landscape. MKC019-26

Section 1.3.3 Need Statement 3

Page 1-20 Existing Condition

- **Nuwuvi Working Group Comment:** We strongly support the need for improved visitor information and environmental interpretation. MKC019-27

- **Nuwuvi Working Group Comment:** We agree that the interpretation opportunities for biological and cultural resources are inadequate as stated. MKC019-28

- **Nuwuvi Working Group Comment:** The use of the term "cultural resources" appears to be inconsistent with the term "heritage resources" as used throughout the document. The text/terminology should be revised to maintain consistency. MKC019-29

Pages 1-21 & 1-22 Desired Conditions

- **Nuwuvi Working Group Comment:** We acknowledge the importance of providing accurate information to the public as it relates to environmental interpretation. As such, the Working Group brings a breadth of experience and specific ecological knowledge that can be applied through participatory processes to interpretive content and design. The product could be an example of government-to-government collaboration applicable to other protected areas in the United States and beyond. MKC019-30

- **Nuwuvi Working Group Comment:** It is recommended that the Forest Service adapt the same methodology for interpretive content development, initiated with the Nuwuvi Working Group in September 2008. This process MKC019-31

ensures the appropriate development and review of text, design, photos, and other interpretive mechanisms. MKC019-31

Section 1.4 - Proposed Action

Page 1-23

- **Nuwuvi Working Group Comment:** The Forest Service is proposing to construct and operate a variety of facilities. We are concerned with the inadvertent unearthing of sensitive heritage resources and other impacts to the cultural landscape. Prior to any ground disturbing activities, arrangements should be made to have traditional prayers conducted by Nuwuvi in the area to sustain a cultural balance within the Nuwuvi holy lands. MKC019-32

- **Nuwuvi Working Group Comment:** The Forest Service should make arrangements to have designated Nuwuvi monitors present during the construction phase of the proposed facilities. MKC019-33

Page 1-26

- **Nuwuvi Working Group Comment**: We were not consulted in the development of the Motor Vehicle Use Map and Travel Management Plan. We request copies of these documents for review and to be included in future planning initiatives. MKC019-34

Section 1.6.1 *Pre-NEPA Public Involvement – Middle Kyle Canyon Framework Plan*

Page 1-28 (Second Bullet)

- **Nuwuvi Working Group Comment:** Text states a 2-day workshop and field trip "*with*" American Indian tribes …The text uses the term "*with*" and should be changed to "*for*" to accurately reflect the intent of the workshop and who was present. The referenced workshop and field trip were conducted "for" the Tribes who in turn sent their designated representatives. This subtle distinction clarifies the potential confusion that tribal government officials participated when in actuality their representatives with cultural ecological knowledge and familiarity of the area were in attendance. MKC019-35

- **Nuwuvi Working Group Comment**: The date of the 2-day workshop should be stated as it demonstrates that consultation with the Nuwuvi Working Group occurred in June 2009. MKC019-36

Section 1.6.4 American Indian Collaboration

Page 1-30

- **Nuwuvi Working Group Comment:** The text states tribes "with a connection" to the Spring Mountains were informed about the Middle Kyle Complex project. The word "connection" is misleading and could include non-culturally affiliated tribes who sponsor field trips to the Spring Mountains. The text should be revised to "culturally affiliated tribes" to alleviate any potential confusion. MKC019-37

- **Nuwuvi Working Group Comment:** The text references a second meeting on March 18 and 19, 2008 in conjunction with other federal agencies. While the Southern Paiute and Chemehuevi Tribes acknowledge participation in a meeting with U.S. Forest Service and Fish and Wildlife Service, it should be noted this meeting was for the express purpose of discussing the Southern Paiute Contemporary Ethnography and Ethnohistory Projects and not the Middle Kyle Complex project as alluded. MKC019-38

- **Nuwuvi Working Group Comment**: The Nuwuvi Working Group did not receive a copy of the DEIS before the June 23-25 meeting. The Proposed and Market Supported Alternatives were presented to the Group with maps and a field visit. The DEIS was provided the week of October 5, 2009. MKC019-39

Section 1.7.2 Non-Significant Issues

Page 1-32

- **Nuwuvi Working Group Comment:** The text states "*the Forest Service evaluated resources in the project area and identified several resources that would not be impacted by the project. These include: air quality; general biological resources; non-native invasive species; federally listed threatened or endangered species; management indicator species; geology and soils; heritage resources; hydrology; social and economic resources; transportation; and visual resources.*" We disagree with this evaluation and conclusion. Any ground disturbing activities in this sacred area may result in impacts to the areas listed above. This text should be revised to provide more clarity and explanation why the areas mentioned above would <u>not</u> be impacted. MKC019-40

- **Nuwuvi Working Group Comment:** The text is confusing; it states that heritage resources will not be impacted while also suggesting that consultation and coordination with the Nevada State Historic Preservation Office will be conducted. The text should be modified to provide more clarification. MKC019-41

- **Nuwuvi Working Group Comment:** The text in this section has omitted any reference to tribal consultation as required in NEPA and Executive Orders relating to government-to-government relations. As such, the text should be expanded to include this reference. MKC019-42

Chapter 2 Alternatives, Including the Proposed Action

Section 2.3 Summary Comparison of Alternatives

Table 2-1

Page 2-19 (Proposed and Market Supported Alternative)

- **Nuwuvi Working Group Comment**: We acknowledge the need to expand the existing facilities in the SMNRA. However, we are concerned about the scale of these proposed developments and their resulting impacts on the landscape. We support a blending of both the Proposed and Market Supported Alternatives that maintain the appropriate aesthetic and degree of isolation. Isolation and the connection with other landscapes are vital components of our songs and stories. Based on the information provided, the village, campground, and picnic area proposed dimensions in the Market Supported Alternative appear to be less impacting on the landscape. We do not support the construction of a commercial size campground that can accommodate Class A RVs. In all developments, it is our sincere hope that the scale respects the isolation of the landscape. MKC019-43

Page 2-21 (Market Supported Alternative)

- **Nuwuvi Working Group Comment**: We support the aspects of both Alternatives that propose less development on the landscape. The Proposed Alternative contains more developments than the Market Supported Alternative. However, the Market Supported Alternative contains the development of a Class A RV campground, which we do not support. Less development will ensure perpetuating the proper aesthetic for the landscape. We consider the lack of development to be important to maintain a degree of isolation for the area and its connection to other landscapes. Isolation and the connection with other landscapes are vital components of our songs and stories, and are part of what makes us who we are and what makes this land important to other landscapes in our traditional territory that spans four states. MKC019-44

- **Nuwuvi Working Group Comment:** The text currently identifies the potential construction of a bridge in Slot Canyon; however the cover letter (File Code: 1950-3) dated September 1, 2009 indicates that the Responsible Official for this project would not support certain proposed project components including a bridge in Slot Canyon. MKC019-45

- **Nuwuvi Working Group Comment:** Since no final decision has been made and all alternatives are currently under evaluation pending additional comments, we do not support a bridge at Slot Canyon as previously shared by the Nuwuvi Working Group and other tribal government officials. MKC019-46

- **Nuwuvi Working Group Comment:** We do not support the Market Supported Alternative as presented, which includes an amphitheatre, commercial style campground, parking for Class A RVs, and expanded mountain bike trails. Increased visitation can threaten natural and cultural resources. If visitation does increase, we suggest implementing environmentally sustainable regulations and technologies that minimize the impacts of the increased visitation for the stated developments. Suggestions include requiring RV vehicles to use sustainable bio-fuels and providing prioritized parking for hybrid vehicles. Biodegradable and non-biodegradable waste minimizing facilities, including increased access to and interpretation about recycling and composting, as well as composting toilets, are innovations that could assist in achieving our shared management goals of this precious landscape. These technologies should be implemented in culturally appropriate ways and in collaboration with the Nuwuvi Working Group. MKC019-47 MKC019-48

Page 2-22

- **Nuwuvi Working Group Comment:** The table indicates that a vegetation treatment and management plan would be implemented. On September 26, 2009, The Nuwuvi Working Group received a document entitled: *Vegetation Management for the Kyle Campground, Kyle CCC Camp, and the Proposed Middle Kyle Complex* dated April 2009. Presently there is no consideration of tribal collaboration within the vegetation management plan. If this plan is to be implemented, we strongly reaffirm the importance of including tribal representatives in the co-management of vegetation. This will provide additional expertise to Forest Service managers and ensure cultural compatibility. MKC019-49

Table 2-2 Issue Comparison by Alternative - Mitigation

Page 2-24 Measure or Mitigation

- **Nuwuvi Working Group Comment:** This table focuses on adverse impacts to the *Acastus* Checkerspot Butterfly with varying degrees of mitigation. We strongly support the protection of habitat for the butterfly and directing trail users away from these areas. MKC019-50

- **Nuwuvi Working Group Comment:** We believe that prior to the construction of any fences, the Forest Service should arrange to have traditional prayers offered. MKC019-51

- **Nuwuvi Working Group Comment:** We request periodic updates from the monitoring results of recreational use on these habitats. MKC019-52

- **Nuwuvi Working Group Comment:** The Mitigation Measures is limited to the *Acastus* Checkerspot Butterfly without consideration to establishing mitigation measures relating to species of importance to American Indians. The Forest Service should make provisions to address our concerns about other species with a strong cultural connection in a proactive fashion. MKC019-53

Page 2-29 Heritage Resources

- **Nuwuvi Working Group Comment:** The text states that evaluation and assessment of potential effects on heritage resources is on-going as is consultation with the Nevada State Historic Preservation Office. Previously it was stated that "*the Forest Service evaluated resources in the project area and identified several resources that would not be impacted by the project. These include: air quality; general biological resources; non-native invasive species; federally listed threatened or endangered species; management indicator species; geology and soils; heritage resources; hydrology; social and economic resources; transportation; and visual resources*." We disagree with this evaluation and conclusion and believe the text is inconsistent. As previously stated, any ground disturbing activities especially within a traditional holy land would result in impacts to the areas listed above. This text should be revised to provide more clarity and explanation why the areas mentioned above would <u>not</u> be impacted. MKC019-54

- **Nuwuvi Working Group Comment:** The text is confusing; it states that heritage resources will not be impacted while the table suggests that the evaluation and assessment of potential effects on heritage resources is on-going. More clarification on this inconsistency is requested. MKC019-55

- **Nuwuvi Working Group Comment:** Although efforts will be made to consult and coordinate with the Nevada State Historic Preservation Office, the text should be modified to provide more clarification and to add provisions for tribal consultation. MKC019-56

Page 2-29 - Market Supported Alternative

- **Nuwuvi Working Group Comment:** The table identifies potential adverse impacts to the proposed Slot Canyon trail bridge and wildlife rehabilitation facility as having an adverse impact in areas of American Indian importance and value. Many of the proposed activities included in the Proposed and Market Supported Alternatives are not culturally compatible and may result in the same adverse impacts as the Slot Canyon trail bridge and wildlife rehabilitation facility. This sacred landscape is our creation place and is part of us. Any additional development to the area can threaten the status of the natural and cultural resources here. We accept that multiple peoples utilize this landscape for recreation. We want to make sure that it is documented that we have concerns about other developments—Slot Canyon and the wildlife MKC019-57

facility were proposed developments with high priority concerns and therefore we communicated our concerns specifically about them. MKC019-57

- **Nuwuvi Working Group Comment:** We recommend that the text be modified to illustrate and note the adverse impacts to other cultural or heritage resources within the proposed Area of Potential Effect. This evaluation should be considered to allow a thorough analysis and parity with other elements within the DEIS. MKC019-58

Page 2-30 - Visual Resources

- **Nuwuvi Working Group Comment:** The table describes the effects of all three alternatives under consideration on visual resources. No provisions have been made to document and evaluate the adverse impacts to the visual resources incorporating culturally affiliated tribes. We consider views to be important cultural resources that contribute to the location and performance of American Indian ceremonialism. Views combined with other cultural resources produce sacred places where power is sought for medicine and other types of ceremonies. Central viewscapes are experienced from high places, including mountaintops and mesa edges. Panoramic American Indian viewscapes gain additional sanctity when they contain highly diverse topography. Viewscape panoramas are further enhanced by the presence of volcanic cones and lava flows. Viewscapes are connected to song and storyscapes, especially when the vantage point has a panorama composed of locations in songs and stories. Vital to the indigenous American Indian experience of viewscapes is isolation. MKC019-59

- **Nuwuvi Working Group Comment:** We suggest that the Forest Service evaluate potential effects to the cultural landscape before making final decisions relating to the selection of an alternative and the record of decision. MKC019-60

Section 2.3.1 Design Criteria and Mitigation Common to All Alternatives

Page 2-33 Botany

- **Nuwuvi Working Group Comment:** The table indicates using the recommendations included in the *Vegetation Management Plan for the Kyle Campground, Kyle CCC Camp and the Proposed Middle Kyle Complex*. Presently there is no consideration of tribal collaboration within the vegetation management plan. If this plan is to be implemented, the Nuwuvi Working Group reaffirms the importance of including tribal representatives in the co-management of vegetation, supplementing the expertise of the Forest Service and ensuring cultural compatibility. MKC019-61

- **Nuwuvi Working Group Comment:** We believe that prior to any ground disturbing activities, a traditional blessing of the area should be conducted to provide harmony and balance. MKC019-61.5

- **Nuwuvi Working Group Comment:** In the event disturbance and/or removal of Joshua trees, other yuccas and cacti occur, the Forest Service should notify culturally affiliated Indian tribes to have first right of refusal to take plants destined for destruction to be used in a culturally appropriate manner. MKC019-62

- **Nuwuvi Working Group Comment:** We recommend that the Forest Service provide funding to conduct research on ecological knowledge using knowledgeable tribal representatives to document knowledge relating to the plant name, use and traditional management practices of native species. MKC019-63

Page 2-37 Wildlife

- **Nuwuvi Working Group Comment:** The text states that it will "*avoid impacts on the Western Burrowing Owl during nesting season by establishing an appropriate buffer area around active burrow sites and avoiding the area. Outside the nesting season and prior to construction, collapse burrows to prevent owls from returning to the burrow*." We do not support the intentional destruction of animal habitats including the collapsing of burrows to prevent the Western Burrowing Owl from returning to its burrow. This practice is not compatible with cultural protocol and upsets the natural balance of the area. MKC019-64

Chapter 3 Affected Environment and Environmental Consequences

Page 3.1-4 Affected Environment

- **Nuwuvi Working Group Comment:** The text provides an overview and description of the existing environmental setting. There is no consideration in the text that this landscape is our holy land. We believe opportunities should be provided for Nuwuvi to develop text for this and future undertakings, illustrating the importance of the Affected Environment from a unique cultural perspective. This approach, which has been used by other federal agencies in the region, promotes government–to-government relations and mutual understanding. MKC019-65

Page 3.1-6 Direct and Indirect Effects (3 Alternatives)

- **Nuwuvi Working Group Comment:** We support the systematic removal of Non-Native Invasive Species (NNIS) in a culturally appropriate manner. MKC019-66

- **Nuwuvi Working Group Comment:** We do not support the expansion of trails for Mountain Bikes with aggressive tread designs comparable to those of motorized Off Highway Vehicles (OHVs), which cause adverse impacts to soil quality and productivity, and accelerate erosion and sedimentation. MKC019-67

- **Nuwuvi Working Group Comment:** We do not support the ongoing soil disturbance along trails and campgrounds. MKC019-68

- **Nuwuvi Working Group Comment:** We do not support the removal of native plant communities for any of the alternatives and feel that culturally compatible ecosystem management should be incorporated. MKC019-69

- **Nuwuvi Working Group Comment:** We do not support the removal of the tree and shrub canopy and agree that it fragments areas of previously undisturbed vegetation communities. MKC019-70

Section 3.1.3 Geology and Soils

Page 3.1-9

- **Nuwuvi Working Group Comment:** The Middle Kyle Canyon Complex falls within our traditional holy land. This land is known as *Nuvagantu.* It is alive and has power. The land has feelings to greet you, eyes to see you, and ears to hear you. It talks from every place in your sight. All of the plants, animals, rocks, water, snow, and air in this landscape are living and need to be in balance to remain healthy. To sustain this balance, we treat all beings with the utmost respect, as we have since the beginning of time. We are inseparable from these mountains, which are powerful, yet delicate. Our language and songs resonate through the springs, trees, rocks, and animals. We believe that when treated in a non-culturally compatible manner, events occur which ultimately impact the area, including the proposed projects described in this DEIS. MKC019-71

Proposed Action and Market Supported Alternative

Page 3.1-10-11 Direct and Indirect Effects

- **Nuwuvi Working Group Comment:** We are concerned with the disturbance that would result in the proposed activities. Impacts may include the reduction in native plant species and litter, poor soil quality and productivity, and an increased risk of erosion and sedimentation. MKC019-72

Section 3.1.4 Hydrology

Page 3.1-12 – Proposed Action

- **Nuwuvi Working Group Comment:** The text describes the impacts associated with the proposed actions. We are concerned about the effects of vegetation cover and plant litter removal. We are also concerned about impacts to water quality, accelerating erosion and subsequent sedimentation. MKC019-73

- **Nuwuvi Working Group Comment:** We are aware that no provision or consideration was given to tribal perspectives as emphasis appears only to be focused on Heritage Resources. The terms Heritage Resources is inadequately defined throughout the document. MKC019-73.5

Section 3.1.5 Social and Economic Resources

Page 3.1-19

- **Nuwuvi Working Group Comment:** The text describes the social and economic conditions in and relating to the proposed project area. We believe that the assessment of social and economic condition is incomplete and does not accurately reflect nor consider the future economic development plans of the Las Vegas Paiute Tribe. The text should be expanded to further consider other initiatives to more accurately reflect the conditions in Clark County. MKC019-74

Affected Environment – Direct and Indirect Effects

Page 3.1-21 Proposed Action

- **Nuwuvi Working Group Comment:** The text provides an overview of conditions relating to Proposed Action including proposed descriptions of retail enterprises. We strongly suggest that opportunities are made to sell Nuwuvi items at retail outlets and vendor operations. MKC019-75

Page 3.1-22 - Market Supported Alternative

- **Nuwuvi Working Group Comment:** The text provides an overview of conditions relating to the Market Support Alternative with an overlap with the Proposed Action. Although only one food vendor is planned at the proposed Village, we suggest that opportunities be provided for Nuwuvi to sell culturally appropriate items at retail outlets and as part of vendor operations. MKC019-76

Section 3.3 Biological Resources

Page 3.3-8 Direct and Indirect Effects

- **Nuwuvi Working Group Comment:** The text discusses the potential effects attributed to construction of the Middle Kyle Complex project on sensitive biological resources. We do not support the developments that result in potential impacts to plant and animal habitats attributed to ground disturbance from foot, domestic animals, equestrian traffic. MKC019-77

- **Nuwuvi Working Group Comment:** The overall Nuwuvi perspective is that we were not included as part of the biological assessment for either the Proposed Action or Market Supported Alternatives. MKC019-78

- **Nuwuvi Working Group Comment:** We do not support the destruction of native plant species and believe that collaborative Forest Service/Nuwuvi ecosystem management should be incorporated as an integral component of the proposed Middle Kyle Canyon project. MKC019-79

- **Nuwuvi Working Group Comment:** We request that removed native plant species be offered to members of the culturally affiliated tribes for use in an appropriate manner. MKC019-79.5

- **Nuwuvi Working Group Comment:** The Nuwuvi Working Group recommends the Forest Service provide funding to conduct an Ethnobotany Study using knowledgeable tribal representatives to document cultural information relating to the plant name, use and traditional management practices relating to native plant species. MKC019-80

Section 3.3.2 Spring Mountains *Acastus* Checkerspot Butterfly Habitat

- **Nuwuvi Working Group Comment:** We support the protection of habitat for the butterfly and directing trail users away from these areas. MKC019-81

- **Nuwuvi Working Group Comment:** We request that prior to the construction of any fences, the Forest Service should arrange to have traditional prayers offered. MKC019-81.5

- **Nuwuvi Working Group Comment:** We request periodic updates on the monitoring results of recreational use on these habitats.

- **Nuwuvi Working Group Comment:** The Mitigation Measures are limited to the *Acastus* Checkerspot Butterfly without consideration to establishing mitigation measures relating to culturally important species of American Indians. The Forest Service should make provisions to address the cultural concerns of the culturally affiliated American Indian people in a proactive fashion. MKC019-82

Section 3.4 Heritage Resources

Page 3.4-1 Affected Environment

- **Nuwuvi Working Group Comment:** The text provides an overview of heritage resource surveys including archaeological resources, ethnographic resources and historic structures. To date, we feel that Nuwuvi have had limited participation in the assessment of heritage resources. We request the Forest Service to arrange to conduct a systematic ethnographic overview incorporating tribal perspectives about this important area. A qualified individual or institution should carry out this research with expertise working MKC019-83

with indigenous peoples, protected areas, and resource management. Any research conducted for the benefit of heritage resource management should include participatory processes that ensure adequate representation of the culturally affiliated nations and the U.S. government. MKC019-83

Page 3.4-2 Heritage Resources

- **Nuwuvi Working Group Comment:** The text states that the Working Group will provide written content for the Final EIS. We are willing to provide content for the Final EIS; however since the final document includes the Record of Decision (ROD) for the proposed alternatives, the text will not be as important as it could be if it was included in the Draft EIS. For future initiatives, we request being a part of drafting of text for Draft EIS documents. MKC019-84

Page 3.4-2 (Table 3.4.1- Heritage Resources)

- **Nuwuvi Working Group Comment:** The table lists heritage resource sites that have been identified within the project area. We have not been involved in the recording or observation of Heritage Resource sites. In reviewing Table 3.4.1, it appears that no previous recorded sites within the project area were considered eligible for the National Register of Historic Places. Five out of 6 newly discovered sites were considered eligible. This is inconsistent and unclear. We request additional text to clarify what is meant here. In the future, consultation on heritage resource site designation will help to document the culturally important sits in the area, helping to preserve them for the future generations. MKC019-85

- **Nuwuvi Working Group Comment:** Since no heritage resource sites were visited by tribal representatives as a basis of the information presented in the DEIS, we recommend that site visit arrangements be organized to observe these areas. MKC019-86

- **Nuwuvi Working Group Comment:** We request copies of the Heritage Resources Report, which has been identified as incomplete as of the DEIS publication date. MKC019-87

- **Nuwuvi Working Group Comments:** We request copies of all site forms and related reports to further evaluate the findings in this important area.

Section 3.4.2 Direct and Indirect Effects

Page 3.4-5 – (No Action Alternative, Proposed Action and Market Supported Alternative)

- **Nuwuvi Working Group Comment:** The text provides an overview of potential effects consistent with each alternative and proposed action. We do MKC019-88

not support unnatural impacts to heritage resources including those attributed to the construction of proposed facilities that could potentially cause ground disturbance and destruction of surface and sub-surface artifacts. The Forest Service should arrange and fund American Indian monitors to be present during ground disturbing activities to avoid inadvertent damage. MKC019-88

Section 3.5 Visual Resources

Page 3.5-2 – Affected Environment

- **Nuwuvi Working Group Comment:** The text provides an overview of visual resources. We are concerned about the impacts to the cultural visual resources in comparison to what is perceived as limited visual resources. MKC019-89

- **Nuwuvi Working Group Comment:** We do not support adverse impacts to geologic landforms, vegetation and water features within the cultural landscape of this important area. MKC019-90

- **Nuwuvi Working Group Comment:** We were not included in the analysis of visual resources and should therefore be included in a cultural visual resource study funded by the Forest Service. MKC019-91

Section 3.6 Compliance with the General Management Plan for the SMNRA

Page 3.6.-1 General Management Plan for the SMNRA

- **Nuwuvi Working Group Comment:** The text provides reference to the Forest Land and Resource Management Plan, including Land and Resource Management Plan for Humboldt-Toiyabe National Forest and the General Management Plan for the SMNRA. The Nuwuvi Working Group requests copies of these reference documents for review. MKC019-92

Section 3.7 Required Disclosures and Executive Orders

Page 3.7-9 - Heritage Resources

- **Nuwuvi Working Group Comment:** The text states "the Forest Service, through coordination with the Nevada SHPO and interested American Indian tribes, will develop appropriate mitigation to minimize or avoid potential adverse impacts on heritage resources within the project area." We appreciate the expressed coordination on issues relating to heritage resources. However, this implied inclusion is not reflected on Pages 1-32 and 2-29 of the DEIS as indicated in the comments of the Nuwuvi Working Group. Therefore, the text in the aforementioned pages should be revised to accurately reflect the proposed coordination to ensure consistency. MKC019-93

PHOTO RECORD

Nuwuvi and Forest Service participants on a site visit in Meeting I.

Nuwuvi Working Group members in Meeting II.

Nuwuvi Working Group member in Meeting II.

The Nuwuvi Working Group at Meeting II.

REFERENCES

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APPENDIX: NUWUVI PARTICIAPTORY CONSULTATION MEETINGS I-III LETTERS

USDA United States Department of Agriculture | Forest Service | Humboldt-Toiyabe National Forest | Spring Mountains NRA
4701 N. Torrey Pines Drive
Las Vegas, NV 89130

File Code: 1560
Date: May 27, 2009

Chairperson/Mr. or Mrs. X
XXXXXXXXXXXXXXX
XXXXXXXXXXXXXXX
XXXXXXXXXXXXXXX

Dear Chairman X,

Thank you for your letter of concern regarding the Cathedral Rock Picnic Area. The depth and detail of your comments indicates your level of commitment to our partnership in managing the Spring Mountains National Recreation Area (SMNRA), which I greatly appreciate. We are still in the process of responding to that letter, so I thank you for your patience.

As you are aware, the U.S. Forest Service collaborated with the nations on interpretive projects for the Middle Kyle Canyon area by using a tribally appointed Working Group, comprised of designated representatives. Given the success of this approach, we propose to continue with this format for consultation on the Desert View Overlook Project and the Middle Kyle Canyon Environmental Impact Statement. We are pleased to announce that Jeremy Spoon, Ph.D., has been contracted to continue facilitating consultation between the SMNRA and the affiliated nations. Please let us know if this format is not acceptable.

We have scheduled a meeting with the Working Group between June 22 and June 25, 2009 at the Resort on Mount Charleston, Las Vegas, Nevada. The purpose of this meeting will be to comment on the proposed developments, to provide an opportunity to elicit tribal insight, and to continue interpretive planning.

Please arrive by 5 pm on June 22 to begin the important work ahead. We will discuss the Desert View Overlook Project on June 23 and spend the remaining days discussing the Middle Kyle Canyon Environmental Impact Statement. The meeting will adjourn at 4 pm on June 25.

We look forward to the next steps in our partnership and appreciate your continued support.

Sincerely,

STEPHANIE A. PHILLIPS
Deputy Forest Supervisor

United States Department of Agriculture | **Forest Service** | **Humboldt-Toiyabe National Forest** | **Spring Mountains NRA**
4701 N. Torrey Pines Drive
Las Vegas, NV 89130

File Code: 1560
Date: September 21, 2009

Chairman/Mr. X
XXXXXXXXXX
XXXXXXXXXX
XXXXXXXXXX

Dear Chairman X,

I am writing to continue our on-going government-to-government relations and consultation on the Middle Kyle Canyon Environmental Impact Statement (EIS) between the Spring Mountains National Recreation Area (SMNRA), and the Southern Paiute and Chemehuevi nations. As you are aware, on June 23-25, 2009, we presented to the tribally designated Nuwuvi Working Group the proposed developments for the Middle Kyle Canyon Complex. The meeting also included time for the Nuwuvi Working Group to meet in executive session to prepare comments on these proposed developments.

It was suggested during the June meeting, that a second meeting occur approximately one month after the public release of the Draft EIS. In this meeting, Nuwuvi Working Group members will have the opportunity to comment on the Draft EIS, and to write a section or chapter to be included in the Final EIS that conveys the importance of the Middle Kyle Canyon area to the Nuwuvi people and the potential impacts of the proposed project.

Accordingly, we propose a Nuwuvi Working Group meeting October 18-20, 2009 at the Resort on Mount Charleston, Las Vegas, Nevada. Please arrive by 5 pm on October 18 to begin the important work ahead. The meeting will adjourn at 4 pm on October 20. I am pleased to announce that Jeremy Spoon, Ph.D., will continue to facilitate consultation between SMNRA and the affiliated nations. Dr. Spoon will be contacting you regarding logistics for the meeting.

Copies of the draft environmental impact statement and vegetation management plan for the Middle Kyle Complex are being mailed in a separate package, which should arrive in the next couple of weeks. If you do not receive this package by September 29th, please contact Judy Suing at (702) 839-5563 or at jsuing@fs.fed.us.

I look forward to the next steps in our partnership and appreciate your continued support.

Sincerely,

STEPHANIE A. PHILLIPS
Deputy Forest Supervisor

United States Department of Agriculture | **Forest Service** | **Humboldt-Toiyabe National Forest** | **Spring Mountains NRA**
4701 N. Torrey Pines Drive
Las Vegas, NV 89130

File Code: 1560
Date: November 2, 2009

Chairman/Mr. X
XXXXXXXXX
XXXXXXXXX
XXXXXXXXX

Dear Chairman X,

This letter is to update you on the on-going government to government consultation between the Spring Mountains National Recreation Area and the Nuwuvi Nations on the Middle Kyle Complex Project.

As you are aware, on June 23-25 and October 18-20, 2009 the U.S. Forest Service presented the proposed developments for the Middle Kyle Canyon Complex to the tribally designated Nuwuvi Working Group. The meetings also included time for the Nuwuvi Working Group to work in executive session to comment on these proposed developments.

We will be taking the comments of the Nuwuvi Working Group into account when developing final decision, which will be documented in a Record of Decision (ROD), for the Middle Kyle Complex. We will then provide a forum to discuss the ROD with the Nuwuvi Working Group and how we incorporated the comments.

Accordingly, we propose a Nuwuvi Working Group meeting November 29-30, 2009 at the Resort on Mount Charleston, Las Vegas, Nevada. We ask the Working Group to arrive by 5 pm on November 29 to begin the important work ahead. The meeting will adjourn at 4 pm on November 30. We are pleased to announce that Jeremy Spoon, Ph.D., will continue to facilitate consultation between SMNRA and the affiliated nations.

We look forward to the next steps in our partnership and appreciate your continued support.

Sincerely,

STEPHANIE A. PHILLIPS
Deputy Forest Supervisor

Appendix A4

Response to Tribal Comments

Appendix A4

Response to Tribal Comments

Introduction

Table A4-1 presents Forest Service responses to the comments submitted by the Nuwuvi Working Group during the public review period on the Draft Environmental Impact Statement (DEIS). The comments and Forest Service responses are organized by comment number. A copy of the *Nuwuvi Participatory Consultation* is included in Appendix A3. Specific comments on the DEIS begin on page 20 of the letter (MKC019).

Table A4-1. Forest Service Response to Nuwuvi Working Group Comments on Middle Kyle Complex Draft Environmental Impact Statement

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
1	The participatory processes utilized to generate comments from the seven culturally affiliated Nuwuvi nations began in May 2009. The seven culturally affiliated nations recognize that resources and staff support were garnered to conduct this consultation process. Both the Draft Environmental Impact Statement (DEIS) consultation and Interpretive Planning Project (initiated in September 2008) have improved the communication among the federal government and the culturally affiliated nations. Previous engagements with the nations were initiated; however, they were not organized in the same method, did not utilize tribally designated representatives from each nation, and did not provide time for participants to discuss their opinions before they were presented to the federal agency. Consequently, we were unable to provide text for the DEIS. We are aware that resources were allotted to hold two meetings with tribally designated representatives after May 2009. These meetings were organized and conducted in a culturally appropriate manner and we approve of the process that ensued to capture our comments for the DEIS. In the future, we request to be contacted earlier in order to be part of the planning process in this participatory framework.	We agree that the participatory consultation process worked well for this project and provided valuable information for decision-making. We are aware that this participatory process could have been initiated earlier and that previous engagements with the nations did not follow a culturally approved format. As part of the upcoming ethnography contract, we will work with the Nuwuvi culturally affiliated nations to develop protocols for improved government-to-government consultation that are effective and appropriate for the scope and scale of future projects.
2	Within the DEIS, there are various documents referenced that have not included Nuwuvi participation in their development, such as the General Management Plan and Conservation Agreement. We request that the U.S. Forest Service include the culturally affiliated nations in the development and refinement of these documents in the same participatory framework conducted for the latter portion of this project.	Future revisions to the General Management Plan (GMP) will include consultation with the culturally affiliated American Indian tribes in a participatory framework. The Conservation Agreement (CA) is an agreement developed by the U.S. Forest Service (Forest Service), U.S. Fish and Wildlife Service (USFWS) and the State of Nevada with the goal of protecting species of concern from being listed as threatened or endangered under the Endangered Species Act (ESA). This agreement is not a decision document as defined by the National Environmental Policy Act (NEPA). In the past, the CA was not typically a document on which the agencies would collaborate with the tribes; however, this is certainly a topic that can be discussed in the upcoming ethnography contract as we have many shared interests.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
3	Nuwuvi are interconnected with our ancestral lands. Any ground disturbance can cause changes in our homeland, unearthing human remains and precious material culture and altering songscapes, storyscapes, and sacred sites. These activities cause the whole landscape to be out of balance. As such, we request that the Forest Service provide opportunities for native monitors from the culturally affiliated nations to be fully engaged in all major developments in the Middle Kyle Complex.	We agree to work out the details for an effective construction monitoring program using trained Nuwuvi monitors from the culturally affiliated nations. This has been noted in the Record of Decision.
4	We have interacted with the Spring Mountains landscape, and specifically Middle Kyle Canyon, for thousands of years. We return to this landscape on a regular basis for spiritual purposes and to harvest resources within our traditional homelands. We consider ourselves connected to these lands, and these lands are connected to us. Our people were created there and pass through the landscape in our journey to the afterlife. It is our holy land. We applaud the efforts of the Forrest Service in recognizing the importance of preserving Slot Canyon to the culturally affiliated nations and the adverse impacts of the proposed bridge. This collaborative resolution reinforces the need for early tribal consultation on proposed development in SMNRA.	We respect the Nuwuvi perspective on the area's spiritual and cultural significance. We are aware that this perspective may differ from that of the Forest Service. Although our perspectives may differ, we feel that the culturally affiliated nations and the Forest Service have similar interests in natural and cultural resource stewardship. We agree on the benefits of early and continued consultation.
5	Recreational use of the area is a new development in relation to the amount of time our people have interacted with this landscape. We are concerned about disrupting the serenity of this special area and the impacts of off-highway vehicles (OHV), mountain bikes, equestrian use, and increased trail use. In the Proposed and Market Supported Alternatives we request that an impact analysis be conducted and the nations be informed about the impacts of these increased recreational activities.	An impact analysis (as required under by Council on Environmental Quality (CEQ) NEPA guidance and Forest Service regulations) was conducted as part of the EIS process and is disclosed in Chapter 3 of the EIS and in the individual specialist reports. The Forest Service has analyzed potential environmental effects associated with this project sufficient to provide for an informed decision. At this time we do not intend to perform any additional impact analysis, as defined by NEPA, for this project. Future use and demand for the area will undoubtedly change as the population and demographics shift. To adapt and proactively respond to these and other changes, the agency, consistent with its mandates, will monitor resources and recreation use (e.g., through National Visitor Use Monitoring studies) as necessary to inform future management of the area. Nuwuvi and the Forest Service share common goals for long-term stewardship and protection of these lands. As new information becomes available, we will share it with Nuwuvi and elicit feedback through participatory mechanisms. The details of how to share this information can be worked out as part of the ethnography contract. We believe that improved communication and collaboration will enhance the stewardship of these lands.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
6	We also encourage the Forest Service to restrict the use of OHVs, mountain bikes, and horses. These restrictions will limit soil erosion and sedimentation on trails, the onset of unofficial social trails, the spread of invasive nonnative plants, and viewscape pollution due to dust. Trail planning can also take into account visitor traffic, spreading out use more evenly. We are aware that Nuwuvi also recreate in the area and will, therefore, be informed by their respective nations about the impacts of their activities.	Mountain biking, OHV, and equestrian use are legitimate National Forest uses on designated roads and trails. We agree that unmanaged recreational use can lead to adverse resource damage. Mountain biking, OHV, and equestrian use will be restricted to designated routes. Proper trail location, improved wayfinding or trail marking, enforcement and monitoring will be necessary project components to minimize resource damage. High-use areas will include additional measures, such as trail hardening (pavements, surfacing) to reduce impacts.
7	The Nuwuvi Working Group proposes specific comments on various components of the Proposed and Market Supported Alternatives. In general, we support a blending of both the Proposed and Market Supported Alternatives. We are aware that SMNRA needs to update its facilities to handle current and future visitors. We consider this as an opportunity for more visitors to learn about Nuwuvi and other peoples' relationships with this special place. However, we strongly suggest that the proper aesthetic of solitude be maintained with the new developments. In order to achieve this goal, we support the Market Supported Alternative plans for the village size and the number of campgrounds and picnic facilities.	We look forward to continued work with Nuwuvi in the subsequent phases of the project, including the interpretation and education programs, which will allow visitors to learn about Nuwuvi and other peoples' relationships with this special place. The Forest Service appreciates the Nuwuvi goal for maintaining the proper aesthetic of solitude and will work with you in the future on design elements to achieve this goal.
8	A prioritized issue that emerged from the meeting concerns the proposed commercial-style campground in the Market-Supported alternative, which will accommodate Class A recreational vehicles (RVs). We do not support the development of this commercial-style campground. We are concerned that this development will significantly impact the natural and cultural resources in the landscape. This proposed action will increase visitor flow and may threaten various components of this fragile landscape. It will affect the viewscape, interrupting how the Spring Mountains are connected to other landscapes and the role of this landscape in our sacred songs. We are also concerned about the air pollution that Class A RVs cause and the litter and human waste generated from these tourists. Less development will ensure perpetuating the proper aesthetic for the landscape. We consider the lack of development to be important to maintain a degree of isolation for the area and its connection to other landscapes. Isolation and the connection with other landscapes are vital components of our songs and stories.	We respect and acknowledge your views. RVs, including Class A RVs, are a legitimate recreation use on National Forest System lands. Currently the SMNRA does not have any developed campgrounds that can accommodate this use. We will collaborate with the Nuwuvi Working Group during the design phase to identify appropriate measures that can be included in the design to reduce the impacts on the landscape important to the culturally affiliated American Indian nations.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
9	If visitation does increase as projected, we suggest implementing environmentally sustainable regulations and technologies that minimize the impacts from the increased visitation for the stated developments. Suggestions include requiring RV vehicles to use sustainable bio-fuels and providing prioritized parking for hybrid vehicles. Biodegradable and non-biodegradable waste-minimizing facilities, including increased access to and interpretation about recycling and composting, as well as composting toilets, are innovations that could assist in achieving our shared management goals of this precious landscape. These technologies should be implemented in culturally appropriate ways and in collaboration with the Nuwuvi Working Group.	We appreciate the culturally affiliated nation's viewpoint that new development must include environmentally sustainable and low-impact technologies and we will actively search them out. We are very open to any suggestions and other information from the Nuwuvi Working Group and the public on how to incorporate these new technologies into our design.
10	In both the Draft Environmental Impact Statement and the Draft Heritage Resource Survey the terms 'heritage resources' and 'cultural resources' are unclear. They are used interchangeably and it is hard to discern if one specifically denotes Nuwuvi cultural resources and the other both Nuwuvi and non-Nuwuvi heritage resources. We consider the landscape to be part of our heritage and connected to us. It is unclear whether the Forest Service accepts our definition of heritage/cultural resources that includes natural features (mountains, rocks, caves, springs, plants, animals, etc.) and the archaeological record. We are concerned that the ambiguity in the definition of these terms may negatively impact what we consider to be our ancestral homeland.	This inconsistency has been corrected in the Final Environmental Impact Statement (FEIS) with all references to "heritage resources" changed to "cultural resources." In July 2008, the Forest Service revised policy direction contained in Forest Service Manual 2360 eliminating the term "heritage resource(s)". The correct terminology is "cultural resources," which is defined as "an object or definite location of human activity, occupation, or use identifiable through field survey, historical documentation, or oral evidence. Cultural resources are prehistoric, historic, archaeological, or architectural sites, structures, places, or objects and traditional cultural properties. In this chapter (FSM 2360), cultural resources include the entire spectrum of resources for which the Heritage Program is responsible from artifacts to cultural landscapes without regard to eligibility for listing on the National Register of Historic Places." We are aware that this definition is intended to generally define cultural resources for both native and nonnative peoples. We will use this definition and modify it to the specific relationship of the culturally affiliated Nuwuvi nations to the Spring Mountains landscape as identified in the essay provided by the nations as comments on the DEIS. It is included it in its entirety in Section 3.8, *Nuwuvi and the Spring Mountains Landscape*, of the FEIS.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
11	Text should be expanded to identify the Spring Mountains as a landscape that is central to our people. The Mountains are our creation place and a fundamental reservoir of resources. We do not separate ourselves from this landscape—we are interconnected. Our holy land is also a songscape, emerging in the sacred songs that describe and transmit the Nuwuvi relation with place. These songs include the ancient Salt Song, which vocally transports the soul upon death across our traditional territory, bringing it to rest in this world.	We acknowledge that the Spring Mountains are central to your people. Unfortunately our participatory consultation process did not occur earlier in the NEPA analysis so that your comments could have been incorporated in the DEIS. We have considered your comments and respect the Nuwuvi views of the landscape. Instead of inserting this text in Section 1.2 of the FEIS we have included the perspectives of the culturally affiliated nations in Section 3.8, *Nuwuvi and the Spring Mountains Landscape* of the FEIS.
12	Revise text to read: 'Promote culturally affiliated American Indian use and protect heritage resources.' Participation and protection are both essential ingredients to sustaining balance, biodiversity, integrity and beauty of the SMNRA. We consider the U.S. Forest Service to be our partners in the management of the area. Promoting our use helps to satisfy the goals of both the federal agency and our people. Our use also ensures the transmission of our ancient culture to the future generations and the public. It is important to denote culturally affiliated American Indian uses and heritage resources. Seven nations of Nuwuvi consider the landscape to be our creation place. These federally and non-federally recognized nations are the culturally affiliated American Indian nations.	This reference was taken directly from the SMNRA GMP. When the GMP is revised in the future, we will consult with the culturally affiliated nations for appropriate language and recognition of the importance of this landscape. We are honored to consider Nuwuvi our partner in the management of the Spring Mountains to promote the goals of both the Forest Service and Nuwuvi.
13	We are concerned that the MSHCP had the limited scope of Clark County. The habitats of various species occur on both side of the landscape, encompassing Clark and Nye Counties. We request that the conservation priorities of Nye County also be taken into account for this project.	We acknowledge that limitation in the MSHCP. Our priorities are to manage the resources of all of the SMNRA, whether in Clark County or Nye County.
14	None of the bulleted points that indicate the guidelines in the Conservation Agreement for select species or the six project planning commitments and three educational commitments mention Nuwuvi, our desire to contribute to the management of the ecosystem, or our intention to inform the public about our relationship with the landscape. We request a role in developing the objectives of these stated guidelines and commitments to properly reflect the goals of the Forest Service and the culturally affiliated nations.	The CA was developed by the Forest Service, USFWS and the State of Nevada with the goal of protecting species of concern from being listed as threatened or endangered under the ESA. The best forum for developing your stated objectives may be in the SMNRA Interpretive Plan, an ongoing project in which the Nuwuvi Working Group has been an active partner, as well as the future planned ethnography contract.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
15	We request that sufficient funding be secured to hire a Nuwuvi interpreter and that opportunities be created for Nuwuvi youth to learn about potential employment positions at SMNRA in cultural and natural resource management.	Because of the uncertainty of future funding we cannot commit to obligating funds for a Nuwuvi interpreter. However, we are open to exploring opportunities for Nuwuvi to provide interpreters to tell stories important to Nuwuvi culture. We are also open to providing information and opportunities for Nuwuvi youth on future potential employment positions at the SMNRA where funding is available.
16	SMNRA staff should also become familiar with Nuwuvi relationships with the Spring Mountains landscape documented in Nuwuvi Working Group and Spoon (2009b).	We agree that this is an excellent idea. We are interested in further discussions with the Nuwuvi Working Group to facilitate a better understanding of the Nuwuvi relationship with the Spring Mountains landscape and providing opportunities to share this information with the SMNRA staff.
17	The information distributed to the public about biodiversity protection and ecosystem management should also include past and present information about Nuwuvi relationships with and management of the Spring Mountains landscape.	We agree and suggest the place to do this is in the development of the SMNRA Interpretive Plan and the programs offered at the Middle Kyle Complex and at other locations within the SMNRA.
18	The significant elements of biodiversity hotspots listed should include the Nuwuvi perspective on threatened and endangered species. We recommend that this information be collected in a participatory manner in collaboration with Forest Service natural scientists and other contractors.	We agree and are interested in further discussions with the Nuwuvi Working Group to facilitate a better understanding of Nuwuvi perspectives on threatened and endangered species and identify the details under which we can make this happen.
19	We have a strong ancestral connection with the Spring Mountains landscape and were not involved in the Landscape Assessment. Provisions should be made to include the cultural practices and traditional ecological knowledge of our people in the following areas: Vegetation management at multiple scales, from species to landscape.	We agree that these are good ideas. We have the opportunity in the upcoming ethnography contract to identify projects in this area.
20	We have a strong ancestral connection with the Spring Mountains landscape and were not involved in the Landscape Assessment. Provisions should be made to include the cultural practices and traditional ecological knowledge of our people in the following areas: Fire-fuel reduction.	We agree that these are good ideas. We have the opportunity in the upcoming ethnography contract to identify projects in this area.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
21	We have a strong ancestral connection with the Spring Mountains landscape and were not involved in the Landscape Assessment. Provisions should be made to include the cultural practices and traditional ecological knowledge of our people in the following areas: Recreation management, especially to ameliorate potential threats to culturally and ecological important species and valued landscape features, such as sacred rocks, water sources, caves, and petroglyph sites.	We agree that these are good ideas. We have the opportunity in the upcoming ethnography contract to identify projects in this area.
22	The text states that the Conversation Agreement (CA) and General Management Plan (GMP) will be used to guide the future revisions of these documents. Previously, we have not participated in the development of the CA and GMP. Our ancestral connection to the landscape embodies extensive ecological and management knowledge that can help to forward the management goals of the Forest Service. The Spring Mountains are also central to our identity, as we consider no separation between our culture and the land. Consequently, the Forest Service should make efforts to include our people in CA and GMP development and implementation. This collaborative relationship will foster government-to government consultation, forwarding the goals of both the federal agency and the indigenous inhabitants of the region.	The DEIS states that the "LA findings and recommendations will be used to guide future revisions of two significant documents: the CA and the GMP". Revisions to the GMP will include consultation with the culturally affiliated nations. The best forum for input on the CA revision may be in the SMNRA Interpretive Plan and in deliverables from the future ethnography contract.
23	The text states four primary goals relating to providing new recreation facilities and visitor services. Item (d) focuses on the reduction of natural resource impacts to major concentrations of plant and wildlife species of concerns. This need fails to identify heritage resources, both American Indian and Euro-American. The text should be expanded to include these resources beyond those currently identified in the document.	At this late stage we cannot change the need statement. However, cultural resources both American Indian and Euro-American will be protected in compliance with the National Historic Preservation Act.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
24	The text indicates that Hispanics are the most frequent minority users of the SMNRA while other minorities are not frequent visitors. This statement is shortsighted; we have had a presence on this landscape for thousands of years. We continue to frequent the landscape for spiritual reasons, to collect resources, and to recreate. It can be inferred that we were not part of the research that yielded these results.	This sentence has been deleted in the FEIS. The last three sentences of this paragraph have been replaced with the following sentence "The ethnic composition of the population is important because the Forest Service hopes to create in the Middle Kyle Complex an area that is sufficiently appealing to attract users from a broad range of demographics and thereby create a socially sustainable site over the long term." The following sentence was added to the next paragraph "Culturally affiliated Nuwuvi nations and other American Indians continue to frequent the Spring Mountains landscape for spiritual reasons, to collect resources, and to recreate."
25	The text [p. 1-12] attempts to recognize and provide examples of Hispanic and Euro-American user groups and their recreation practices. Given the strong cultural ties that we have to the area and our unique use, no consideration is given or identified about this relation.	Text has been added to the FEIS to state: "Culturally affiliated Nuwuvi nations and other American Indians continue to frequent the Spring Mountains landscape for spiritual reasons, to collect resources, and to recreate."
26	Page 1-13 Mountain Biking: We do not support the use of mountain bikes within the SMNRA due to their adverse impacts on cultural resources. Mountain bikes have aggressive tread designs similar to those found on Off-Highway Vehicles (OHVs) that cause adverse impacts on soil quality and productivity, accelerating erosion and sedimentation. We have observed OHVs steering away from designated trails and creating new trails, which increases adverse impacts to cultural and natural resources. We request to be included in the planning of mountain bike trails to help the Forest Service forward its mission of protecting the landscape.	Mountain biking is a legitimate recreational use on designated National Forest System roads and trails outside of wilderness areas. We agree that unmanaged mountain bike (and OHV) use can lead to adverse resource damage. A portion of the north Telephone Canyon area trail network was removed from the decision so that additional location and resource survey work could be completed to ensure trail development in appropriate locations, reducing potential adverse impacts on sensitive resources. This work will be included in a separate NEPA analysis, and the Nuwuvi Working Group will be included in the consultation for that proposed trail network. There is also an opportunity to participate in the layout of the Middle Kyle Complex south canyon hiking and biking trails (Harris Springs area), which is included in the decision. Details of this participation can be worked out at future consultation meetings with the Nuwuvi Working Group.
27	Page 1-20 Existing Condition: We strongly support the need for improved visitor information and environmental interpretation.	Thank you for your support.
28	We agree that the interpretation opportunities for biological and cultural resources are inadequate as stated [p. 1-20].	Thank you for your support.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
29	The use of the term "cultural resources" [p. 1-20] appears to be inconsistent with the term "heritage resources" as used throughout the document. The text/terminology should be revised to maintain consistency.	This inconsistency has been corrected in the FEIS with all references to "heritage resources" changed to "cultural resources". In July 2008 the Forest Service revised policy direction contained in Forest Service Manual 2360 eliminating the term "heritage resource(s)". The correct terminology is "cultural resources" which is defined as "An object or definite location of human activity, occupation, or use identifiable through field survey, historical documentation, or oral evidence. Cultural resources are prehistoric, historic, archaeological, or architectural sites, structures, places, or objects and traditional cultural properties. In this chapter (FSM 2360), cultural resources include the entire spectrum of resources for which the Heritage Program is responsible from artifacts to cultural landscapes without regard to eligibility for listing on the National Register of Historic Places." We are aware that this definition is intended to generally define cultural resources for both native and nonnative peoples. We will use this definition and modify it to the specific relationship of the culturally affiliated Nuwuvi nations to the Spring Mountains landscape as identified in the essay provided by the nations as comments to the DEIS. The essay is included in its entirety in Chapter 3 of the FEIS.
30	We acknowledge the importance of providing accurate information to the public as it relates to environmental interpretation. As such, the Working Group brings a breadth of experience and specific ecological knowledge that can be applied through participatory processes to interpretive content and design. The product could be an example of government-to-government collaboration applicable to other protected areas in the United States and beyond.	We agree and appreciate the involvement and participation by the Nuwuvi Working Group to date on the SMNRA Interpretive Plan. We look forward to continued collaboration in this effort.
31	It is recommended that the Forest Service adapt the same methodology for interpretive content development, initiated with the Nuwuvi Working Group in September 2008. This process ensures the appropriate development and review of text, design, photos, and other interpretive mechanisms.	We agree.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
32	Page 1-23: The Forest Service is proposing to construct and operate a variety of facilities. We are concerned with the inadvertent unearthing of sensitive heritage resources and other impacts to the cultural landscape. Prior to any ground disturbing activities, arrangements should be made to have traditional prayers conducted by Nuwuvi in the area to sustain a cultural balance within the Nuwuvi holy lands.	At the November 30, 2009, Nuwuvi Working Group meeting we agreed to have traditional prayers offered during ground-breaking ceremonies.
33	The Forest Service should make arrangements to have designated Nuwuvi monitors present during the construction phase of the proposed facilities.	We agree to work out the details of an effective construction monitoring program composed of trained Nuwuvi monitors and this has been noted in the Record of Decision.
34	Page 1-26: We were not consulted in the development of the Motor Vehicle Use Map and Travel Management Plan. We request copies of these documents for review and to be included in future planning initiatives.	The Motor Vehicle Use Map (MVUM) was provided to the Nuwuvi Working Group at our November 30, 2009 meeting. We will include the culturally affiliated nations in the next significant revision (i.e., revision requiring NEPA) to the MVUM.
35	Page 1-28 (Second Bullet): Text states a 2-day workshop and field trip “with” American Indian tribes …The text uses the term “with” and should be changed to “for” to accurately reflect the intent of the workshop and who was present. The referenced workshop and field trip were conducted “for” the Tribes who in turn sent their designated representatives. This subtle distinction clarifies the potential confusion that tribal government officials participated when in actuality their representatives with cultural ecological knowledge and familiarity of the area were in attendance.	We agree and this change has been made in the FEIS.
36	The date of the 2-day workshop should be stated as it demonstrates that consultation with the Nuwuvi Working Group occurred in June 2009.	We agree that the date will clarify when this meeting occurred. The referenced meeting transpired during the pre-NEPA phase of the project on September 2 and 3, 2004. This change has been made in the FEIS.
37	Page 1-30: The text states tribes “with a connection” to the Spring Mountains were informed about the Middle Kyle Complex project. The word “connection” is misleading and could include non-culturally affiliated tribes who sponsor field trips to the Spring Mountains. The text should be revised to “culturally affiliated tribes” to alleviate any potential confusion.	We agree and this change has been made in the FEIS.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
38	The text references a second meeting on March 18 and 19, 2008 in conjunction with other federal agencies. While the Southern Paiute and Chemehuevi Tribes acknowledge participation in a meeting with U.S. Forest Service and Fish and Wildlife Service, it should be noted this meeting was for the express purpose of discussing the Southern Paiute Contemporary Ethnography and Ethnohistory Projects and not the Middle Kyle Complex project as alluded.	The meeting had multiple purposes. The first day of the meeting, the Forest Service and the USFWS briefed the tribal representatives on their respective ongoing projects. The Forest Service presentation discussed a variety of projects including the Middle Kyle Complex project. The second day of the meeting was dedicated to discussions on the Southern Paiute Contemporary Ethnography and Ethnohistory Projects. We are aware that it was confusing to gather members of the culturally affiliated nations on multiple projects without a clear understanding of the expectations of the meeting.
39	The Nuwuvi Working Group did not receive a copy of the DEIS before the June 23-25 meeting. The Proposed and Market Supported Alternatives were presented to the Group with maps and a field visit. The DEIS was provided the week of October 5, 2009.	The intent of this meeting was to review the administrative DEIS, i.e., the preliminary DEIS, prior to public release to obtain tribal comment before completing the print-ready public version. At the time of the meeting we had complete drafts of Chapters 1 and 2, but Chapter 3 was still very preliminary. Admittedly, this was not the ideal situation or our intention, and in the future we will strive to include the culturally affiliated nations in earlier stages of projects and to provide adequate time for comment, when possible. However, we do feel our primary objectives were accomplished at that meeting providing valuable information and insight on tribal concerns that were then considered by the Deciding Official in identifying the preferred alternative included in the published DEIS. We commend the Nuwuvi Working Group for their diligence and spirit of cooperation and collaboration in assisting the agency meet an accelerated timeline for completion of the DEIS providing timely input to assist in an informed decision.
40	The text states “the Forest Service evaluated resources in the project area and identified several resources that would not be impacted by the project. These include: air quality; general biological resources; non-native invasive species; federally listed threatened or endangered species; management indicator species; geology and soils; heritage resources; hydrology; social and economic resources; transportation; and visual resources.” We disagree with this evaluation and conclusion. Any ground disturbing activities in this sacred area may result in impacts to the areas listed above. This text should be revised to provide more clarity and explanation why the areas mentioned above would not be impacted.	We agree. There were errors in this paragraph and it has been deleted from the FEIS because it was inconsistent with the discussion on effects in Chapter 3.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
41	The text is confusing; it states that heritage resources will not be impacted while also suggesting that consultation and coordination with the Nevada State Historic Preservation Office will be conducted. The text should be modified to provide more clarification.	We agree. The statement that heritage (cultural) resources would not be affected was incorrect and the paragraph was deleted from the FEIS because it was inconsistent with the discussion on effects in Chapter 3.
42	The text in this section has omitted any reference to tribal consultation as required in NEPA and Executive Orders relating to government-to-government relations. As such, the text should be expanded to include this reference.	We agree. The disclosure of tribal consultation occurs in Sections 3.7.12 and 3.7.15 of the DEIS and FEIS, respectively. The last two paragraphs of Section 1.7.2 have been deleted in the FEIS. In addition, Section 1.6.5 of the FEIS has been updated and additional detail regarding the tribal consultation that has occurred during the EIS process has been added.
43	We acknowledge the need to expand the existing facilities in the SMNRA. However, we are concerned about the scale of these proposed developments and their resulting impacts on the landscape. We support a blending of both the Proposed and Market Supported Alternatives that maintain the appropriate aesthetic and degree of isolation. Isolation and the connection with other landscapes are vital components of our songs and stories. Based on the information provided, the village, campground, and picnic area proposed dimensions in the Market Supported Alternative appear to be less impacting on the landscape. We do not support the construction of a commercial-size campground that can accommodate Class A RVs. In all developments, it is our sincere hope that the scale respects the isolation of the landscape.	We will continue to involve the Nuwuvi Working Group during the design phase of the project providing an opportunity to develop landscape sensitive designs that consider the Nuwuvi connection to the landscape, especially regarding the aesthetic of isolation in the area.
44	We support the aspects of both Alternatives that propose less development on the landscape. The Proposed Alternative contains more developments than the Market Supported Alternative. However, the Market Supported Alternative contains the development of a Class A RV campground, which we do not support. Less development will ensure perpetuating the proper aesthetic for the landscape. We consider the lack of development to be important to maintain a degree of isolation for the area and its connection to other landscapes. Isolation and the connection with other landscapes are vital components of our songs and stories, and are part of what makes us who we are and what makes this land important to other landscapes in our traditional territory that spans four states.	We will continue to involve the Nuwuvi Working Group during the design phase of the project providing an opportunity to develop landscape-sensitive designs that consider the Nuwuvi connection to the landscape, especially regarding the aesthetic of isolation in the area.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
45	The text currently identifies the potential construction of a bridge in Slot Canyon; however the cover letter (File Code: 1950-3) dated September 1, 2009 indicates that the Responsible Official for this project would not support certain proposed project components including a bridge in Slot Canyon.	The Slot Canyon bridge is part of the Market Supported Alternative described in the DEIS; however, prior to publication of the DEIS, the Forest Service Responsible Official determined that he would not support this element of the alternative because of concerns about facility compatibility with Nuwuvi significance and potential adverse impacts on the landscape and costs associated with construction of this facility. It was determined that this section of the DEIS would be an appropriate place to inform the interested reader. We appreciate your comments and we took them into account in the Record of Decision.
46	Since no final decision has been made and all alternatives are currently under evaluation pending additional comments, we do not support a bridge at Slot Canyon as previously shared by the Nuwuvi Working Group and other tribal government officials.	The Slot Canyon bridge is part of the Market Supported Alternative described in the DEIS; however, prior to publication of the DEIS the Forest Service Responsible Official determined that he would not support this element of the alternative because of concerns about facility compatibility with Nuwuvi significance and potential adverse impacts on the landscape and costs associated with construction of this facility. It was determined that this section of the DEIS would be an appropriate place to inform the interested reader. We appreciate your comments and we took them into account in the Record of Decision.
47	We do not support the Market Supported Alternative as presented, which includes an amphitheatre, commercial style campground, parking for Class A RVs, and expanded mountain bike trails. Increased visitation can threaten natural and cultural resources.	We acknowledge your concern. We recognize that the Spring Mountains are part of the Nuwuvi cultural landscape. We acknowledge that this area is the Nuwuvi creation place and that it is central to Nuwuvi identity in the past, present, and future. We will strive to design improvements in an environmentally responsible manner and continue to involve the Nuwuvi Working Group in the subsequent phases of the project to accomplish this goal.
48	If visitation does increase, we suggest implementing environmentally sustainable regulations and technologies that minimize the impacts of the increased visitation for the stated developments. Suggestions include requiring RV vehicles to use sustainable bio-fuels and providing prioritized parking for hybrid vehicles. Biodegradable and non-biodegradable waste-minimizing facilities, including increased access to and interpretation about recycling and composting, as well as composting toilets, are innovations that could assist in achieving our shared management goals of this precious landscape. These technologies should be implemented in culturally appropriate ways and in collaboration with the Nuwuvi Working Group.	We agree with much of what you state and we will actively look at appropriate and feasible environmentally sustainable low-impact technologies. We are very open to any suggestions and other information from the Nuwuvi Working Group and the public on how to incorporate these new technologies into our design.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
49	The table indicates that a vegetation treatment and management plan would be implemented. On September 26, 2009, The Nuwuvi Working Group received a document entitled: Vegetation Management for the Kyle Campground, Kyle CCC Camp, and the Proposed Middle Kyle Complex dated April 2009. Presently there is no consideration of tribal collaboration within the vegetation management plan. If this plan is to be implemented, we strongly reaffirm the importance of including tribal representatives in the co-management of vegetation. This will provide additional expertise to Forest Service managers and ensure cultural compatibility.	We agree that it is important to include tribal representatives in the comanagement of vegetation to provide expertise and ensure cultural compatibility. We are open to further discussions on what this might include and can work out the details in the ethnography contract.
50	This table focuses on adverse impacts to the Acastus Checkerspot Butterfly with varying degrees of mitigation. We strongly support the protection of habitat for the butterfly and directing trail users away from these areas.	Thank you for your support.
51	We believe that prior to the construction of any fences, the Forest Service should arrange to have traditional prayers offered.	At the November 30, 2009, Nuwuvi Working Group meeting we agreed to have traditional prayers offered during ground-breaking ceremonies.
52	We request periodic updates from the monitoring results of recreational use on these habitats.	We agree to provide this information within a reasonable timeframe after it becomes available.
53	The Mitigation Measures is limited to the Acastus Checkerspot Butterfly without consideration to establishing mitigation measures relating to species of importance to American Indians. The Forest Service should make provisions to address our concerns about other species with a strong cultural connection in a proactive fashion.	Mitigation is applied when there are significant impacts on a specific resource, in this case the Spring Mountains acastus checkerspot butterfly, and the mitigation is designed to bring the impacts to an acceptable level. In this case, the mitigation is a fence to funnel recreation users onto the Kyle Canyon Wash Trail in the vicinity of a recorded mate selection area for the Spring Mountains acastus checkerspot butterfly. For future projects the upcoming ethnography contract will provide an opportunity to identify species that are of importance and have a strong cultural connection to the culturally affiliated American Indian nations.
54	The text states that evaluation and assessment of potential effects on heritage resources is ongoing as is consultation with the Nevada State Historic Preservation Office. Previously it was stated that “the Forest Service evaluated resources in the project area and identified several resources that would not be impacted by the project. These include: air quality; general biological resources; non-native invasive species; federally listed threatened or endangered species; management indicator species; geology and soils; heritage resources; hydrology; social and economic resources; transportation; and visual resources.” We disagree with this evaluation and conclusion and	We agree that this text is inconsistent and it has been corrected in the FEIS as described in the responses to comment numbers 40 and 41. In addition, the text in Table 2-3 has been updated in the FEIS.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
	believe the text is inconsistent. As previously stated, any ground disturbing activities especially within a traditional holy land would result in impacts to the areas listed above. This text should be revised to provide more clarity and explanation why the areas mentioned above would not be impacted.	
55	The text is confusing; it states that heritage resources will not be impacted while the table suggests that the evaluation and assessment of potential effects on heritage resources is ongoing. More clarification on this inconsistency is requested.	We agree that this text is inconsistent and it has been corrected in the FEIS.
56	Although efforts will be made to consult and coordinate with the Nevada State Historic Preservation Office, the text should be modified to provide more clarification and to add provisions for tribal consultation.	The table has been corrected in the FEIS to include reference to consultation with the culturally affiliated tribes.
57	The table identifies potential adverse impacts to the proposed Slot Canyon trail bridge and wildlife rehabilitation facility as having an adverse impact in areas of American Indian importance and value. Many of the proposed activities included in the Proposed and Market Supported Alternatives are not culturally compatible and may result in the same adverse impacts as the Slot Canyon trail bridge and wildlife rehabilitation facility. This sacred landscape is our creation place and is part of us. Any additional development to the area can threaten the status of the natural and cultural resources here. We accept that multiple peoples utilize this landscape for recreation. We want to make sure that it is documented that we have concerns about other developments—Slot Canyon and the wildlife facility were proposed developments with high priority concerns and therefore we communicated our concerns specifically about them.	We added the following statement to the Proposed Action column of the table (and in the Executive Summary table): “This is a sacred landscape to Nuwuvi people. The proposed activities and development in general would not be culturally compatible in areas of Nuwuvi significance and would have an adverse impact on the landscape.” We rephrased the statement in the Market Supported Alternative column of the table (and in the Executive Summary table) from “However, construction of the Slot Canyon trail bridge and wildlife rehabilitation facility have been identified as having an adverse impact in areas of American Indian importance and values” to “Slot Canyon trail bridge construction and the commercial-style campground were identified by the Nuwuvi Working Group as areas of high concern regarding impacts on the landscape.”
58	We recommend that the text be modified to illustrate and note the adverse impacts to other cultural or heritage resources within the proposed Area of Potential Effect. This evaluation should be considered to allow a thorough analysis and parity with other elements within the DEIS.	Please see responses to comments 54 and 55.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
59	The table describes the effects of all three alternatives under consideration on visual resources. No provisions have been made to document and evaluate the adverse impacts to the visual resources incorporating culturally affiliated tribes. We consider views to be important cultural resources that contribute to the location and performance of American Indian ceremonialism. Views combined with other cultural resources produce sacred places where power is sought for medicine and other types of ceremonies. Central viewscapes are experienced from high places, including mountaintops and mesa edges. Panoramic American Indian viewscapes gain additional sanctity when they contain highly diverse topography. Viewscape panoramas are further enhanced by the presence of volcanic cones and lava flows. Viewscapes are connected to song and storyscapes, especially when the vantage point has a panorama composed of locations in songs and stories. Vital to the indigenous American Indian experience of viewscapes is isolation.	We acknowledge your viewpoint. To address your comment we have inserted the following paragraph at the end of the Visual Resources Affected Environment section: "Nuwuvi consider views to be important cultural resources that contribute to the location and performance of American Indian ceremonialism. Views combined with other cultural resources produce sacred places where power is sought for medicine and other types of ceremonies. Central viewscapes are experienced from high places, including mountaintops and mesa edges. Panoramic American Indian viewscapes gain additional sanctity when they contain highly diverse topography. Viewscape panoramas are further enhanced by the presence of volcanic cones and lava flows. Viewscapes are connected to song and storyscapes, especially when the vantage point has a panorama composed of locations in songs and stories. Vital to the indigenous American Indian experience of viewscapes is isolation." In addition, the Visual Resources section of Table 2-3 and Table ES-1 (Effects on Natural Landscape Character row) includes the following sentence: "The Forest Service acknowledges that all new construction would have a degree of impact on the American Indian experience of viewscapes and isolationism. In the design and construction phases of the Middle Kyle Complex, consultation will be conducted with culturally affiliated American Indian nations to ensure that these impacts are mitigated where and when feasible."
60	We suggest that the Forest Service evaluate potential effects to the cultural landscape before making final decisions relating to the selection of an alternative and the record of decision.	We acknowledge that the culturally affiliated nations view the natural and cultural resources in a different perspective than the federal agency. We have taken your essay and comments into consideration in arriving at the Record of Decision.
61	The table indicates using the recommendations included in the *Vegetation Management Plan for the Kyle Campground, Kyle CCC Camp and the Proposed Middle Kyle Complex*. Presently there is no consideration of tribal collaboration within the vegetation management plan. If this plan is to be implemented, the Nuwuvi Working Group reaffirms the importance of including tribal representatives in the comanagement of vegetation, supplementing the expertise of the Forest Service and ensuring cultural compatibility.	We agree that it is important to include tribal representatives in the comanagement of vegetation to provide expertise and ensure cultural compatibility. We are open to further discussions on what this might include and can work out the details in the ethnography contract.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
61.5	We believe that prior to any ground disturbing activities, a traditional blessing of the area should be conducted to provide harmony and balance.	At the November 30, 2009, Nuwuvi Working Group meeting we agreed to have traditional prayers offered during ground-breaking ceremonies.
62	In the event disturbance and/or removal of Joshua trees, other yuccas and cacti occur, the Forest Service should notify culturally affiliated Indian tribes to have first right of refusal to take plants destined for destruction to be used in a culturally appropriate manner.	We are open to this suggestion and will work out the details during the design and implementation phase.
63	We recommend that the Forest Service provide funding to conduct research on ecological knowledge using knowledgeable tribal representatives to document knowledge relating to the plant name, use and traditional management practices of native species.	Because of the uncertainty of future funding we cannot commit to obligating funds for research on indigenous ecological knowledge. However, we are open to exploring opportunities with the Nuwuvi for grants and other non-appropriated funding sources for this purpose.
64	The text states that it will “avoid impacts on the Western Burrowing Owl during nesting season by establishing an appropriate buffer area around active burrow sites and avoiding the area. Outside the nesting season and prior to construction, collapse burrows to prevent owls from returning to the burrow.” We do not support the intentional destruction of animal habitats including the collapsing of burrows to prevent the Western Burrowing Owl from returning to its burrow. This practice is not compatible with cultural protocol and upsets the natural balance of the area.	This design criterion has been revised in the FEIS to delete the last sentence regarding the collapse of unoccupied burrows.
65	The text provides an overview and description of the existing environmental setting. There is no consideration in the text that this landscape is our holy land. We believe opportunities should be provided for Nuwuvi to develop text for this and future undertakings, illustrating the importance of the Affected Environment from a unique cultural perspective. This approach, which has been used by other federal agencies in the region, promotes government–to-government relations and mutual understanding.	We acknowledge that the landscape is the Nuwuvi holy land. We are including a statement about this under the affected environment description for the visual resources and we will make this acknowledgement in the Record of Decision.
66	We support the systematic removal of Non-Native Invasive Species (NNIS) in a culturally appropriate manner.	We will work with the culturally affiliated nations to understand culturally appropriate methods for NNIS removal. A possible forum for this discussion and documentation will be the upcoming ethnography contract.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
67	We do not support the expansion of trails for Mountain Bikes with aggressive tread designs comparable to those of motorized Off Highway Vehicles (OHVs), which cause adverse impacts to soil quality and productivity, and accelerate erosion and sedimentation.	Mountain bikes are a legitimate use on designated National Forest System roads and trails outside of the wilderness. We will strive to minimize resource impacts through appropriate trail location and design.
68	We do not support the ongoing soil disturbance along trails and campgrounds.	We will strive to minimize resource impacts through implementation of best management practices, hardening of trails and sites in high-use areas, improved wayfinding, and fencing where appropriate to direct users to designated trails.
69	We do not support the removal of native plant communities for any of the alternatives and feel that culturally compatible ecosystem management should be incorporated.	While there will be loss of vegetation with construction of the facilities, we will strive to minimize impacts on native vegetation and include revegetation of temporary disturbance areas. We are open to learning from the culturally affiliated nations on how best to retain and restore native vegetation.
70	We do not support the removal of the tree and shrub canopy and agree that it fragments areas of previously undisturbed vegetation communities.	There will be loss of some trees and shrubs with construction of the facilities. We will strive to minimize impacts on native vegetation and include revegetation of temporary disturbance areas. We acknowledge the need to save as many trees as possible. We are open to learning from the culturally affiliated nations on how best to manage native plant communities.
71	The Middle Kyle Canyon Complex falls within our traditional holy land. This land is known as *Nuvagantu*. It is alive and has power. The land has feelings to greet you, eyes to see you, and ears to hear you. It talks from every place in your sight. All of the plants, animals, rocks, water, snow, and air in this landscape are living and need to be in balance to remain healthy. To sustain this balance, we treat all beings with the utmost respect, as we have since the beginning of time. We are inseparable from these mountains, which are powerful, yet delicate. Our language and songs resonate through the springs, trees, rocks, and animals. We believe that when treated in a non-culturally compatible manner, events occur which ultimately impact the area, including the proposed projects described in this DEIS.	We acknowledge the spiritual and cultural significance of this area. We will collaborate with the Nuwuvi Working Group during the design phase of the project, institute a construction monitoring program with trained Nuwuvi monitors, and provide for traditional prayers prior to ground-breaking for the project.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
72	We are concerned with the disturbance that would result in the proposed activities. Impacts may include the reduction in native plant species and litter, poor soil quality and productivity, and an increased risk of erosion and sedimentation.	We will strive to minimize resource impacts through implementation of low-impact design, best management practices, design criteria and mitigation measures. We will also include the Nuwuvi Working Group in the design phase to ensure that the developments respect the Nuwuvi spiritual and cultural relationship with this landscape as much as possible.
73	The text describes the impacts associated with the proposed actions. We are concerned about the effects of vegetation cover and plant litter removal. We are also concerned about impacts to water quality, accelerating erosion and subsequent sedimentation.	We will strive to minimize resource impacts through implementation of low-impact design, best management practices, design criteria and mitigation measures. We will include erosion control, landscaping and revegetation of temporary disturbance areas in the project design. We will also include the Nuwuvi Working Group in the design phase to ensure that the developments respect the Nuwuvi spiritual and cultural relationship with this landscape as much as possible.
73.5	We are aware that no provision or consideration was given to tribal perspectives as emphasis appears only to be focused on Heritage Resources. The terms Heritage Resources is inadequately defined throughout the document.	The term “heritage resources” has been changed throughout the FEIS to “cultural resources.” We have provided the tribal perspective in Chapter 3 of the FEIS with the inclusion of the essay you provided in your DEIS comments. This information provides valuable insight for the reader and the decision maker.
74	The text describes the social and economic conditions in and relating to the proposed project area. We believe that the assessment of social and economic condition is incomplete and does not accurately reflect nor consider the future economic development plans of the Las Vegas Paiute Tribe. The text should be expanded to further consider other initiatives to more accurately reflect the conditions in Clark County.	This project has minimal social and economic effects within the defined areas, and even less effect within Clark County. We believe that there is sufficient information and analysis to arrive at an informed decision. We acknowledge that the Las Vegas Paiute Golf Course is close to the project area and that increases in visitation on the SMNRA may also lead to increased use at the golf course. There may be an opportunity to share information on the golf course at the visitor center and provide information on SMNRA activities at the golf course.
75	The text provides an overview of conditions relating to Proposed Action including proposed descriptions of retail enterprises. We strongly suggest that opportunities are made to sell Nuwuvi items at retail outlets and vendor operations.	We agree. We are looking forward to working with the Nuwuvi Working Group on this suggestion.
76	The text provides an overview of conditions relating to the Market Support Alternative that overlaps with the Proposed Action. Although only one food vendor is planned at the proposed Village area, we suggest that opportunities be provided for Nuwuvi to sell culturally appropriate items at retail outlets and as part of vendor operations.	We agree. We are looking forward to working with the Nuwuvi Working Group on this suggestion.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
77	The text discusses the potential effects attributed to construction of the Middle Kyle Complex project on sensitive biological resources. We do not support the developments that result in potential impacts to plant and animal habitats attributed to ground disturbance from foot, domestic animals, and equestrian traffic.	We respect and acknowledge your views. We will strive to minimize resource impacts through implementation of best management practices, hardening of trails and sites in high-use areas, improved wayfinding, and fencing where appropriate to direct users to designated trails. We will also include the Nuwuvi Working Group in the design phase to ensure that the developments respect the Nuwuvi spiritual and cultural relationship with this landscape as much as possible.
78	The overall Nuwuvi perspective is that we were not included as part of the biological assessment for either the Proposed Action or Market Supported Alternatives.	We currently do not have a process for involving tribal input for biological assessments on projects. We welcome discussion on this topic during the upcoming ethnography contract.
79	We do not support the destruction of native plant species and believe that collaborative Forest Service/Nuwuvi ecosystem management should be incorporated as an integral component of the proposed Middle Kyle Canyon project.	We respect and acknowledge your views. We will strive to minimize resource impacts through implementation of best management practices, minimization measures and revegetation. We will also include the Nuwuvi Working Group in the design phase to ensure that the developments respect the Nuwuvi spiritual and cultural relationship with this landscape as much as possible. The subject of collaborative ecosystem management can be a topic for further discussion during the upcoming ethnography contract.
79.5	We request that removed native plant species be offered to members of the culturally affiliated tribes for use in an appropriate manner.	We are open to this suggestion and will work with members of the culturally affiliated tribes to refine a mutually expectable approach during the project design and implementation phase.
80	The Nuwuvi Working Group recommends the Forest Service provide funding to conduct an Ethnobotany Study using knowledgeable tribal representatives to document cultural information relating to the plant name, use, and traditional management practices relating to native plant species.	This can be accomplished as part of the upcoming ethnography contract.
81	We support the protection of habitat for the butterfly and directing trail users away from these areas.	Thank you for your support.
81.5	We request that prior to the construction of any fences, the Forest Service should arrange to have traditional prayers offered.	At the November 30, 2009, Nuwuvi Working Group meeting we agreed to have traditional prayers offered during ground-breaking ceremonies.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
82	The Mitigation Measures are limited to the Acastus Checkerspot Butterfly without consideration to establishing mitigation measures relating to culturally important species of American Indians. The Forest Service should make provisions to address the cultural concerns of the culturally affiliated American Indian people in a proactive fashion.	Mitigation is applied when there are significant impacts on a specific resource, in this case the Spring Mountains acastus checkerspot butterfly, and the mitigation is designed to bring the impacts to an acceptable level. For future projects the upcoming ethnography contract will provide an opportunity to identify species that are significant to the culturally affiliated American Indians.
83	The text provides an overview of heritage resource surveys including archaeological resources, ethnographic resources and historic structures. To date, we feel that Nuwuvi have had limited participation in the assessment of heritage resources. We request the Forest Service to arrange to conduct a systematic ethnographic overview incorporating tribal perspectives about this important area. A qualified individual or institution should carry out this research with expertise working with indigenous peoples, protected areas, and resource management. Any research conducted for the benefit of heritage resource management should include participatory processes that ensure adequate representation of the culturally affiliated nations and the U.S. government.	We agree. We are in the process of awarding a contract, in partnership with the USFWS, to perform an ethnography study for the Spring Mountains. This contract will include a participatory process to ensure adequate representation of the culturally affiliated nations.
84	The text states that the Working Group will provide written content for the Final EIS. We are willing to provide content for the Final EIS; however since the final document includes the Record of Decision (ROD) for the proposed alternatives, the text will not be as important as it could be if it was included in the Draft EIS. For future initiatives, we request being a part of drafting of text for Draft EIS documents.	We will include the essay you have provided in your DEIS comments in Chapter 3 of the FEIS, and incorporate appropriate references in the Record of Decision. For future projects we will collaborate earlier with the tribes during the NEPA process using protocols agreed to during the upcoming ethnography contract.
85	The table lists heritage resource sites that have been identified within the project area. We have not been involved in the recording or observation of Heritage Resource sites. In reviewing Table 3.4.1, it appears that no previous recorded sites within the project area were considered eligible for the National Register of Historic Places. Five out of 6 newly discovered sites were considered eligible. This is inconsistent and unclear. We request additional text to clarify what is meant here. In the future, consultation on heritage resource site designation will help to document the culturally important sits in the area, helping to preserve them for the future generations.	We have updated this section to reflect current information contained in the final *Middle Kyle Complex Cultural Resources Report*.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
86	Since no heritage resource sites were visited by tribal representatives as a basis of the information presented in the DEIS, we recommend that site visit arrangements be organized to observe these areas.	We would be happy to arrange a site visit.
87	We request copies of the Heritage Resources Report, which has been identified as incomplete as of the DEIS publication date. We request copies of all site forms and related reports to further evaluate the findings in this important area.	A copy of the final *Middle Kyle Complex Cultural Resource Report* and site forms will be provided to the Nuwuvi Working Group.
88	The text provides an overview of potential effects consistent with each alternative and proposed action. We do not support unnatural impacts to heritage resources including those attributed to the construction of proposed facilities that could potentially cause ground disturbance and destruction of surface and sub-surface artifacts. The Forest Service should arrange and fund American Indian monitors to be present during ground disturbing activities to avoid inadvertent damage.	We acknowledge your request and prior to initiating construction we will coordinate with the appropriate tribes to refine the details of American Indian monitoring of ground-disturbing activities.
89	The text provides an overview of visual resources. We are concerned about the impacts to the cultural visual resources in comparison to what is perceived as limited visual resources.	We respect and acknowledge your views. To address your comment we inserted the following paragraph at the end of the Visual Resources Affected Environment section: “Nuwuvi consider views to be important cultural resources that contribute to the location and performance of American Indian ceremonialism. Views combined with other cultural resources produce sacred places where power is sought for medicine and other types of ceremonies. Central viewscapes are experienced from high places, including mountaintops and mesa edges. Panoramic American Indian viewscapes gain additional sanctity when they contain highly diverse topography. Viewscape panoramas are further enhanced by the presence of volcanic cones and lava flows. Viewscapes are connected to song and storyscapes, especially when the vantage point has a panorama composed of locations in songs and stories. Vital to the indigenous American Indian experience of viewscapes is isolation.”
90	We do not support adverse impacts to geologic landforms, vegetation and water features within the cultural landscape of this important area.	We respect and acknowledge your views. We will strive to minimize resource impacts through implementation of best management practices, low-impact design, erosion control, and revegetation in the project design. We will also include the Nuwuvi Working Group in the design phase to ensure that the developments respect the Nuwuvi spiritual and cultural relationship with this landscape as much as possible.

Comment Number	Nuwuvi Working Group Comment	Forest Service Response
91	We were not included in the analysis of visual resources and should therefore be included in a cultural visual resource study funded by the Forest Service.	We do not have funding to commit to such a study. However, regarding the implementation of this project, we will continue to collaborate with the Nuwuvi Working Group during the design phase of the project to provide an opportunity to develop landscape and visually sensitive designs that will integrate the cultural visual resources of the area to the extent practicable.
92	The text provides reference to the Forest Land and Resource Management Plan, including Land and Resource Management Plan for Humboldt-Toiyabe National Forest and the General Management Plan for the SMNRA. The Nuwuvi Working Group requests copies of these reference documents for review.	The Toiyabe National Forest Land and Resource Management Plan and the GMP for the SMNRA was provided to the Nuwuvi Working Group at the November 30, 2009, Nuwuvi Working Group meeting.
93	The text states “the Forest Service, through coordination with the Nevada SHPO and interested American Indian tribes, will develop appropriate mitigation to minimize or avoid potential adverse impacts on heritage resources within the project area.” We appreciate the expressed coordination on issues relating to heritage resources. However, this implied inclusion is not reflected on Pages 1-32 and 2-29 of the DEIS as indicated in the comments of the Nuwuvi Working Group. Therefore, the text in the aforementioned pages should be revised to accurately reflect the proposed coordination to ensure consistency.	These corrections have been made in the FEIS.

Appendix B

Detailed Comparison of Alternatives

Appendix B

Detailed Comparison of Alternatives

Table B-1 below presents a one-to-one comparison of the design and operational features considered under the alternatives. The estimated quantities presented in the table are approximate and actual quantities may vary slightly after the final design has been completed. For additional information refer to the alternative figures and descriptions in Chapters 1 and 2.

Table B-1. Detailed Comparison of Alternatives

No Action Alternative	Proposed Action	Market Supported Alternative
WESTERN AREA		
Fletcher View Campground		
The culvert and drainage crossing over Kyle wash would be maintained.	Replace culvert in Kyle wash and upgrade drainage crossing to meet Forest Service standards.	Same as the Proposed Action.
Kyle CCC Camp and Fletcher Canyon Trailhead		
The existing Forest Service administrative site including employee housing, and outdoor storage area for Forest Service equipment and supplies would be maintained in the current location. Forest Service fire crews and engine would continue to operate out of this location.	Remove existing non-historic buildings, including storage sheds, aboveground fuel tanks, barracks, trailers, and outdoor storage. Forest Service administrative and fire functions and employee housing would be relocated to new facilities in the Northern Area.	Same as the Proposed Action.
The Kyle Canyon Interim Visitor Center with public restrooms and parking for approximately 10 vehicles would remain in the existing location and function.	The Kyle Canyon Interim Visitor Center building would be relocated outside the project area. The existing restrooms and existing parking spaces would be removed and the area restored to a natural vegetative condition.	Same as the Proposed Action.
The existing roads would be maintained as either paved or unpaved roads. Drainage crossings in Kyle wash would remain in their current condition.	Infrastructure of retained roads in this area would be improved, including upgrading culverts in Kyle wash to meet Forest Service standards. Abandoned roads, parking area, and the outdoor storage area would be rehabilitated and restored to a natural vegetative state.	Same as the Proposed Action.
The existing Kyle CCC Camp storage yard, parking area and access road would remain in their current condition and uses.	Improve existing access road 275 feet in length west of the existing Fletcher Canyon Trailhead parking on SR 157. Construct Kyle CCC Camp public parking facilities with 12 spaces, a restroom, hydrant, and four single picnic units. This area would also serve as parking for Fletcher Canyon Trail. The surrounding area would be restored to a natural condition and existing trees would remain. A three-panel bulletin board would be constructed in this area.	Same as the Proposed Action with the addition of a small grass-covered play area centrally located between Fletcher View Campground and Kyle Canyon Campground and north of the proposed amphitheater.

No Action Alternative	Proposed Action	Market Supported Alternative
No similar action.	A paved 8-foot-wide Forest Service Trail Accessibility Guidelines (FSTAG) -accessible hiking and biking trail would be constructed through Kyle CCC Camp from existing trail to Fletcher View Campground (paved) on the west to Kyle Canyon Campground to the east.	Same as the Proposed Action.
Historic buildings and non-historic buildings would remain in the same location and setting.	Historic buildings would be restored and maintained for managed public use as a historic site. Limited Forest Service administrative functions may be continued in this location. Retained site infrastructure (walks, utility connections, etc.) would be improved to address deferred maintenance backlog and to support proposed intended uses.	Same as the Proposed Action.
Interpretive information is currently not offered regarding the historic significance of the Kyle CCC buildings. Under this alternative, the Forest Service would not provide interpretive information for visitors.	Offer interpretive programs covering the historic site at the proposed 20- to 30-person amphitheater located west of historic CCC buildings. Self-guided tours may also be provided.	Same as the Proposed Action.
The Fletcher Canyon Trailhead adjacent to SR 157 with approximately 6 parking spaces would remain in the existing location. Pedestrian crossing on SR 157 may not be marked and signed.	A 6-foot-wide unpaved trail would be constructed to connect the existing trailhead parking on the south side of SR 157 to the public parking area at Kyle CCC Camp. A new pedestrian crossing on SR 157 would be marked and signed to identify it to both pedestrians and motorists.	Same as Proposed Action with the exception of closing and rehabilitating the existing Fletcher Canyon Trailhead parking and restoring the area to a native condition. Construct 7 additional off-highway parking spaces east of new access road.
Fletcher Canyon Trail (1.6 miles) would be maintained in the current configuration for hiking and equestrian use. User-created trails would remain undesignated and would be closed as necessary to reduce or prevent resource damage.	Build new section of Fletcher Canyon Trail utilizing user-created trails and new trail construction creating a loop, east of existing Fletcher Canyon Trail. Include connection to Northern Area trails via pedestrian/equestrian crossing on SR 158. This will provide 2.1 miles of new trail for hiking and equestrian use.	Same as Proposed Action with the exception of not constructing a connection to the trails in the Northern Area and pedestrian/equestrian crossing on SR 158. This will provide 1.8 miles of new trail for hiking and equestrian use.

No Action Alternative	Proposed Action	Market Supported Alternative
Kyle Canyon Campground		
The existing Kyle Canyon Campground would be maintained with 26 campsites/32 units[1] (20 single units, 6 double units).	Reconstruct and improve Kyle Canyon Campground including the following: ▪ 29 campsites/38 units (21 single units, 7 double units, 1 triple unit). ▪ Includes 3 new walk-in campsites on south bank of Kyle wash with trail bridge crossing wash.	Reconstruct and improve Kyle Canyon Campground including the following: ▪ 24 campsites/33 units (16 single units, 7 double units, 1 triple unit). ▪ 5 camp cabins/7 units (3 single cabins, 2 double cabins with electricity). Of the 5 cabins, 3 would be walk-ins located on the south bank of Kyle wash with trail bridge crossing wash.
The existing tent pads (5 single, 5 double) would be maintained.	The number of tent pads (21 single, 7 double, 1 triple) would be increased.	The number of tent pads (16 single, 7 double, 1 triple) would be increased.
The existing restrooms with vault toilets would remain in use.	Construct 2 new restrooms (2 units each) with showers and flush toilets.	Construct 2 new restrooms (2 units each) with showers and flush toilets.
	One 2-unit vault toilet would be constructed in the western loop. Existing vault toilets would be removed.	One 2-unit restroom with flush toilet and no showers would be constructed in western loop. Existing vault toilets would be removed.
Electrical, water and sewer hook-ups are not provided at Kyle Canyon Campground.	Install electrical hook-ups at select sites within Kyle Canyon Campground.	Install electrical, water, and sewer hook-ups at select sites within Kyle Canyon Campground.
Existing turning radius of roads, turnouts, and drainage crossings would be maintained. Recreational vehicle (RV) use would be maintained to the current size of vehicle.	Widen roadway segments with two-way traffic to double-lane standard and rehabilitate selected roads and parking stalls to accommodate larger RVs as appropriate. Upgrade existing drainage crossing in Kyle wash to meet Forest Service standards.	Retain two-way traffic road segments at existing width and add intervisible turnouts where extra width can be accommodated with minimal resource impact. Widen and rehabilitate selected roads and stalls only where removal of existing mature ponderosa pines could be avoided. Upgrade existing drainage crossing in Kyle wash to meet Forest Service standards.
The existing single unit vault toilets would be maintained.	Install sewer lines including a septic tank and drain field that will establish an on-site treatment system.	Install a sewer collection system connected to sewer trunk line and waste treatment facility that would be located in the Eastern Area. Remove existing vault toilets.

No Action Alternative	Proposed Action	Market Supported Alternative
Vegetation management and treatment would be implemented on a limited scale within the campground (e.g., hazard tree removal).	Implement vegetation management and treatment plan within the campground (reference *Vegetation Management for the Kyle Campground, Kyle CCC Camp, and Proposed Middle Kyle Complex (2009*).	Same as the Proposed Action.
Six existing campsites would be maintained as -accessible. Remaining sites would be maintained in the current condition and some would not meet applicable accessible standards set forth by the Forest Service Outdoor Recreation Accessibility Guidelines (FSORAG) or FSTAG.	Upgrade campground facilities to the extent practicable within topographic and resource constraints to meet accessibility standards set forth by the FSORAG and FSTAG. All new restroom/shower facilities would be fully accessible.	Same as the Proposed Action.
Existing user-created trails around Kyle Canyon Campground would remain undesignated and would be closed as necessary to minimize or prevent resource damage. The external boundaries of the campground would not be fenced.	Construct a paved 8-foot-wide FSTAG -accessible trail in Kyle wash from the eastern end of campground leading to Village.	Same as Proposed Action. Construct additional 3-foot-wide unpaved hiking trail on southern perimeter of the campground leading west to Kyle CCC Camp. Create a small play space located in eastern loop and fence portions of the south side of campground.
VILLAGE		
Existing disturbed areas within the 128-acre former golf course property would undergo limited restoration[3] to a more natural state, including removal of non-native vegetation, debris, and some asphalt. In the event of a fire in the Kyle Canyon area, the asphalt parking area on the property may be used as a fire command post. Existing turn lanes on SR 157 would be maintained.	Construct the Village area south of SR 157 on previously disturbed 128-acre site. Construct left-turn and acceleration/deceleration lanes on SR 157 to improve safety and facilitate traffic movement. Coordinate SR 157 improvements with NDOT.	Construct the Village on both sides of SR 157, making the highway the "main street" of the Village. Install traffic calming devices and/or a roundabout on SR 157 to reduce traffic speed through this area and facilitate traffic movement. Construction of a roundabout would require granting additional easement width to NDOT. Provide for safe pedestrian crossing of SR 157. Coordinate with NDOT for improvements to SR 157.
No similar action at this location.	Construct visitor center (12,000 square feet) with 1 indoor classroom.	Construct visitor center (10,000 square feet) with retail/sundry/gift shop and café. No indoor classroom.
No similar action.	Construct a separate building (4,200 square feet) for meeting space, rental space for 4 to 6 retail shops, and 3 food vendors.	Limited retail (books and sundries), formal meeting space not included, and 1 food vendor/café included in Kyle Canyon Interim Visitor Center space.

No Action Alternative	Proposed Action	Market Supported Alternative
No similar action.	Provide a separate building (2,400 square feet.) for artist-in-residence and security facilities.	Provide security staff space in administrative facilities in Northern Area. Separate artist-in-residence building would not be provided.
No similar action at this location.	Construct the following amenities: ▪ Plaza area (60,000 square feet) ▪ Landscape and play space (40,000 square feet) ▪ Amphitheater (1,500-person capacity) ▪ Outdoor classroom (1) ▪ Commons area (4.25 acres) ▪ Interpretive exhibits (2,000 square feet) ▪ Three 50-person group picnic sites with covered pavilions and restrooms	Construct the following smaller scale amenities: ▪ Plaza area (40,000 square feet) ▪ Landscape and play space (40,000 square feet) ▪ Amphitheater (150-person capacity) ▪ Utilize amphitheater for educational purposes ▪ Commons area (4.25 acres) ▪ Interpretive exhibits (2,000 square feet) ▪ One 50-person group picnic site with covered pavilion and restroom Construction of a separate education facility will be considered.
The existing interpretive exhibits and selection of information would continue to be available at the Kyle Canyon Interim Visitor Center. A way-finding system would not be implemented.	Install support facilities including an improved way-finding system.	Same as the Proposed Action.
No similar action at this location.	Construct an underground parking structure and surface parking (1,300 spaces).	Construct surface parking lot (250 spaces).
No similar action.	Construct a transit center (2,000 square feet).	Allocate space for future transit center and bus stop but no facilities would be constructed.
No similar action.	Construct a biomass facility near the visitor center to provide heating and cooling for new facilities.	Biomass facility would not be constructed.
Existing ornamental trees and non-native vegetation planted as landscaping for golf course would be removed to restore site to a more natural state.	Remove selected non-native trees and shrubs. Landscape developed and restored areas with native plants and with non-native, non-invasive tree and turf species in some high use areas, such as recreation and administrative areas.	Same as the Proposed Action.

No Action Alternative	Proposed Action	Market Supported Alternative
VALLEY		
Portions of the 128-acre site would be restored to a more natural state including removal of ornamental trees and non-native vegetation, removal of trash and debris and some asphalt.	Remove remaining golf course infrastructure including in-stream log structures. Recontour tee boxes and portions of former golf course area to approximate natural contours. Relocate golf cart trails as required to improve grades and alignment. Restore select areas in the surrounding uplands and Kyle wash.	Same as the Proposed Action.
Existing artificial ponds would provide water for fire suppression.	Reconstruct existing ponds. Construct modest recreation amenities near ponds including restrooms, small natural amphitheater for educational programs, and picnic tables.	Same as the Proposed Action.
User-created trails would remain undesignated and would be closed as necessary to minimize or prevent resource damage.	Construct trail system including FSTAG-accessible paved interpretive trail, crossings over the Kyle wash, and trail/stairs connecting to the Resort on Mount Charleston.	Same as the Proposed Action.
User-created trails would remain undesignated and would be closed as necessary to prevent resource damage.	Construct unpaved canyon bottom trail for hiking only, extending from Valley to trailhead west of Harris Springs Road. Connect canyon bottom trail to Village with paved FSTAG trail and to Rim Trail with 3 unpaved hiking trails.	Same as Proposed Action except construct trail with two connections to Rim Trail.
No similar action.	Provide two outdoor classrooms and a natural picnic area.	Same as the No Action Alternative.
Snow play would continue in designated area in Lee Canyon. Areas in Kyle Canyon would not be designated for winter activities.	Designate a winter snow play area including a sledding hill.	No designated snow-play area. Design and space considerations would be given to provide for limited snow play only when suitable winter conditions exist on site.
MAIN CAMPING & PICNIC AREA		
User-created trails would remain undesignated and would be closed as necessary to prevent resource damage.	Construct paved 8-foot-wide FSTAG-accessible Rim Trail from Village to overlook of slot canyon in Eastern Area. Align trail south of Main Camping and Picnic Area. Allow hiking and biking on trail. Construct hiking trails to three canyon overlook areas.	Construct Rim Trail as described under Proposed Action, except with hiking trail leading to only one canyon overlook. Construct trail bridge over slot canyon connecting to trails in Eastern Area.

No Action Alternative	Proposed Action	Market Supported Alternative
Existing width of SR 157 would be maintained.	Widen SR 157 to provide turn and acceleration/deceleration lanes to improve safety and facilitate traffic movement at four-way intersection where entrances to the Main Camping and Picnic Area and Northern Area. Coordinate with NDOT for improvements to SR 157.	Same as Proposed Action. Consider installing roundabout at four-way intersection where entrances to the Main Camping and Picnic Area and Northern Area in lieu of acceleration/deceleration/turn lanes. Coordinate with NDOT for improvements to SR 157.
NFS roads 45531 and 45531A would be maintained as unpaved roads.	Realign and pave NFS road 45531 as the main access road to camping and picnic areas approximately 3 miles in length. Construct new road, or improve existing road, parallel to and connecting to SR 157 at each terminus. Revegetate abandoned road segments. Install gates near each terminus and at easternmost parking area to provide controlled access within the fee area. Upgrade the low-water crossing on the east. Realign and pave NFS 45531A for approximately 500 feet as the main entrance to this area.	Same as the Proposed Action.
Existing erosion controls on SR 157 would be maintained.	Install riprap for energy dissipation of runoff east of main entrance on south side of SR 157 at highway drainage outlets to reduce erosion.	Same as the Proposed Action.
No similar action at this location.	Construct a camp store/registration area at main entrance to camping and picnic fee area.	Same as Proposed Action except parking in this area would be enlarged to accommodate Class A RVs.
No similar action.	Construct traditional Forest Service campgrounds for individual RV and tents with 211 campsites/291 units (167 single, 35 double, 9 triple). Some sites may include shade shelters. In addition, the following may also be included: ▪ 10 campsites in small group RV campground. ▪ 100 campsites in walk-in large group tent campground. ▪ 10 campsites in equestrian campground. ▪ A small amphitheater. ▪ Restrooms with flush toilets and showers.	Construct traditional Forest Service campground for individual RV and tents with 48 campsites/62 units (36 single, 10 double, 2 triple). May include the following: ▪ A small amphitheater. ▪ Restrooms with flush toilets and showers.

No Action Alternative	Proposed Action	Market Supported Alternative
No similar action.	Same as the No Action Alternative.	Construct commercial-style campground with 144 campsites (71 back-in sites, 48 pull-thru sites, 12 tent sites, and 13 camp cabins) in concentrated area. Construct an earthen landscaped berm to act as a sound barrier between campground and SR 157. Include a camp store with multi-purpose space and Laundromat. Provide a 15-site campground for workers. Provide additional recreation facilities that may include a disc golf course, splash pad, grassy playground, two multi-use playing fields, and a small amphitheater.
No similar action.	Construct two picnic loops with 85 picnic sites/132 units (38 single, 47 double) west of campgrounds. Include shade shelters at select sites. Construct 3 large group picnic sites (1, 50-person sites and 2, 25-person sites).	Construct one picnic loop with 42 picnic sites/ 65 units (19 single, 23 double) west of campgrounds. Include shade shelters at select sites.
The existing helipad location would be maintained in its current location. Illegal dumping occurring adjacent to this site may continue.	Remove existing helipad and dump site material; restore area. Construct helipad in the Northern Area near interagency fire station and Forest Service administrative facility.	Remove existing helipad and dump site material; restore area. Construct helipad, 15,000-gallon portable tank for aerial dipping, parking and heliport support facilities east of the campground areas.
No similar action.	Install on-site sewage treatment with septic tanks and leach fields.	Construct a central sewage treatment facility with lagoons east of new helipad location.
No similar action.	Construct an RV dump station east of main entrance to camping and picnic area within the fee area.	Same as Proposed Action, except locate RV dump station outside the fee area, west of main entrance near the registration/camp store.
No similar action.	Build a large walk-in group tent campground (100 campsites total) at far east end of the campground road.	Add trailhead at east end of campground road accessing Rim Trail and bridge over Kyle wash/slot canyon connecting to south rim trail system.

No Action Alternative	Proposed Action	Market Supported Alternative
NORTHERN AREA		
No similar action.	Build trailhead in Telephone Canyon area west of NDOT maintenance station, including equestrian rental concession, corrals and parking area.	Build trailhead with parking area and corral only, no rental concession.
No similar action.	Construct trailhead and corrals east of main entrance to the Northern Area with parking available for equestrians, hikers, and bikers. Provide trail connection to Telephone Canyon trail system and trailhead west of main entrance. Construct equestrian campground (10 pull-thru sites) east of trailhead.	Same as the No Action Alternative.
User-created trails in this area would remain undesignated and would be closed as necessary to minimize or prevent resource damage.	Construct new unpaved trails, improve selected existing undesignated trails and existing NFS road 45530 (Telephone Canyon Road) to create trail system in Telephone Canyon area for a total of approximately 19.5 miles. Designate approximately 2.7 miles for biking only. Designate other trails for hiking and equestrian use or hiking, biking, and equestrian use. Telephone Canyon Road would be closed to motorized vehicles north of gate. Trails would extend north to existing Robbers Roost trailhead. Provide trail connection to trailhead and equestrian campground east of main entrance road southeast of employee housing area. Provide additional connection to same area further south and parallel to SR 157.	Same as Proposed Action, except trail system would be a total of approximately 17 miles without trail connection along SR 157 or trails connecting to equestrian facilities included under Proposed Action.
Access to area would remain unchanged. User-created trails would remain undesignated and would be closed as necessary to minimize or prevent resource damage.	Connect Telephone Canyon trails to improved Fletcher Canyon Trails (approximately 0. 9 mile), via pedestrian/equestrian crossing on SR 158.	Construct trails in Telephone Canyon without connection to Fletcher Canyon Trails or pedestrian/equestrian crossing on SR 158.
Existing entrance to NDOT maintenance station would be maintained.	Reroute access road from SR 157 to NDOT maintenance office from new entrance road. Leave office in existing location; restore and revegetate abandoned highway access road.	Same as the No Action Alternative.
Existing width of SR 157 would be maintained.	Improve SR 157 entrance to Northern Area as described under Main Camping and Picnic Area.	Improve SR 157 as described under Main Camping and Picnic Area.

No Action Alternative	Proposed Action	Market Supported Alternative
No similar action.	Sign and stripe pedestrian crossings on SR 157 for access to Village, fee areas, and trail system south of SR 157.	Same as the Proposed Action.
Existing solid waste transfer station would continue to be permitted in the existing location.	Relocate solid waste transfer station to another location outside the project area and off NFS lands. Existing permit would not be reauthorized. Restore and revegetate site.	Leave solid waste transfer station in existing location, eliminate access road off SR 157, and reroute access road from main entrance. Extend electrical and communication lines to facility as required. Restore and revegetate abandoned access road.
Forest Service administrative activities and facilities would continue in the existing locations at Kyle CCC Camp. Nevada Division of Forestry (NDF) and Clark County Fire Department (CCFD) would continue operating in their current locations and facilities in Mt. Charleston. Nevada Highway Patrol (NHP) and Las Vegas Metropolitan Police Department (Metro) would continue to operate out of their existing locations. Existing helipad location would be maintained.	Construct administrative facility (10,000 square feet), including facilities or permitted adjacent NFS land for the following agencies: ▪ Forest Service administration, warehouse, and maintenance. ▪ Interagency fire facilities (NDF and CCFD) station. ▪ Helipads. ▪ Law enforcement (Metro office at new permitted location near administrative facilities). ▪ Separate concessionaire office (2,000 square feet). ▪ Locate administrative facilities more than 1,000 feet north of SR 157 on main (Telephone Canyon) road.	Construct Forest Service and interagency administrative complex including the following facilities: ▪ Construct interagency (Forest Service, NDF, CCFD) fire facilities (13,400 square feet) closer to SR 157. ▪ Interagency (Forest Service, NHP, Metro) law enforcement (5,000 square feet) with exterior fenced impound area. ▪ Concessionaire/non-profit partner (2,000 square feet). ▪ Forest Service administrative building (8,200 square feet). ▪ Forest Service warehouse (5,000 square feet). ▪ Exterior fenced storage yards (30,000 square feet). ▪ Locate administrative facilities, law enforcement, and concession office 0.6 mile east of main road. ▪ Move helipad to more remote location south of SR 157.

No Action Alternative	Proposed Action	Market Supported Alternative
Existing employee housing would be maintained at Kyle CCC Camp.	Build employee and volunteer housing area consisting of 3 single family houses, 1 barrack, and 8 trailer pads north of administrative facilities.	Construct employee and volunteer housing area consisting of 4 duplex units, 2 barracks and 8 trailer pads. Include additional facilities such as outdoor play area and gathering area for trailer pads.
No similar action.	Construct a research center (3,000 square feet) located adjacent to employee housing area.	Include office space for research center in Forest Service administrative facility.
No similar action.	No similar action.	Build wildlife rehabilitation facility north of gate on main road. Extend utilities (water, sewer, electrical and communication) to proposed facility within road corridor.
No similar action.	Build biomass facility to heat and cool administrative facilities in this area.	Biomass facility would not be constructed.
NFS road 45530 (Telephone Canyon Road) would be maintained as unpaved road. Road would remain open to all motorized vehicles.	Realign NFS road 45530 and pave as the main entrance to this area. Install gate approximately 0.6 mile north of SR 157. Close road to all motor vehicle use north of the gate, excluding authorized vehicles. Extend paved portion of road to gate and include a widened gravel shoulder to accommodate foot traffic. Install drainage crossing to meet Forest Service standards.	Same as Proposed Action, except install gate approximately 300 feet further south than under Proposed Action. Extend pavement north of gate for access to wildlife rehabilitation facilities by authorized vehicles only.
NFS road 45530A would be maintained as unpaved road.	Realign, pave, and extend NFS road 45530A to the east by 0.6 miles to provide access to trailhead and equestrian campground.	Same as Proposed Action, except road would access the interagency fire, law enforcement, and Forest Service administrative facilities.
NFS road 45577 (Wooden Pole Power Line Road) would be maintained as unpaved road open to all motorized vehicles.	Build OHV trailhead with vault toilet east of NFS road 45577 on the north side of SR 157 for access to existing NFS roads and trails.	Same as the No Action Alternative.
Designated NFS trails shown on Motor Vehicle Use Map would remain open to all motorized vehicles.	Close NFS trails 25871 and 25872 to motorized vehicles.	Same as the Proposed Action.
Existing deteriorating fiberglass water storage tanks on 128-acre parcel would be removed. Existing reservoirs would be maintained for fire suppression purposes.	Remove existing water storage tanks and reservoirs including aboveground portions of distribution lines. Restore and revegetate surrounding areas, including abandoned and unauthorized routes[2] north of SR 157 and east of SR 158.	Same as the Proposed Action.

No Action Alternative	Proposed Action	Market Supported Alternative
EASTERN AREA		
Existing width of SR 157 would be maintained.	Widen SR 157 for westbound deceleration preceding left turn lane at intersection with Harris Springs Road. Coordinate with NDOT for improving SR 157.	Revise traffic study based on reduced scale of development under this alternative to validate the need for highway widening. Coordinate with NDOT.
Harris Springs Road would continue to be maintained by Clark County as an unpaved improved road.	Widen and pave approximately 0.7 mile of Harris Springs Road to meet Clark County standards, including a paved bike lane. Upgrade drainage crossing to meet Clark County standards.	Same as the No Action Alternative.
NFS roads 45532H and 45532J would be maintained as unpaved and unimproved roads. Unimproved access to area would be maintained. User-created trails would remain undesignated and would be closed as necessary to minimize or prevent resource damage.	Construct trailhead and pave approximately 1,000 feet of NFS road 45532H and parking area west of Harris Springs Road. Include restroom with vault toilet. Close NFS road 45532J to motor vehicles.	Construct trailhead in same location as under Proposed Action, except NFS road 45532 H and parking area would not be paved. Include restroom with vault toilet. Close NFS road 45532J to motor vehicles.
	Access canyon bottom trail (hiking only) from trailhead to Village and Valley areas to west. See description of canyon bottom trail provided under Valley area.	Same as the Proposed Action.
	Build paved FSTAG-accessible trail from trailhead parallel to and south of SR 157 leading to paved road at eastern end of camping area.	Provide access to canyon bottom trail only at this trailhead.
Existing unimproved access to area would be maintained.	Construct and pave trailhead west of Harris Springs Road at approximately 0.6 milepost. Build bicycle rental/concession building and restroom with vault toilet. Install on-site sewage treatment system with septic tank and leachfield. Extend water, power, and communication utilities to this location.	Construct unpaved trailhead in same location including restroom with vault toilet. No utilities would be provided to this location.
NFS roads 45532A thru 45532C and NFS trails 25875 and 25876 would be maintained as unimproved dirt routes open to all motorized vehicles. User-created routes would remain undesignated and may be closed as necessary to minimize or prevent resource damage.	Close NFS routes 25875, 25876, and 45532A through 45532C to all motor vehicle use and convert to hiking and biking south rim trail system. Provide approximately 8.5 miles hiking and biking trails with an overlook on east rim of slot canyon.	Same as the Proposed Action. Connect trail at overlook to trail bridge (approximately 300-foot span) over Kyle wash/slot canyon and paved FSTAG-accessible Rim Trail on west.

No Action Alternative	Proposed Action	Market Supported Alternative
Designated routes west of Harris Springs Road would remain open to use by motorized vehicles. Some areas and unauthorized routes may be closed as necessary to minimize or prevent resource damage.	Install signs and traffic management devices (e.g., barrier rock, fence, signs) west of Harris Springs Road to discourage unauthorized vehicle access.	Same as Proposed Action.
OTHER ACTIONS		
Dispersed camping would be allowed to continue within the Lee Canyon, Kyle Canyon, and Deer Creek Canyon areas of the SMNRA. Some areas would be closed as necessary to prevent or restore resource damage.	Prohibit dispersed camping within 300 feet on either side of Forest Service roads and trails open to motorized vehicles, trailheads, county roads, and state highways within the Lee Canyon, Kyle Canyon, and Deer Creek areas of the SMNRA, including connecting and tributary Forest Service routes such as those in the Macks Canyon and Harris Springs areas. This closure would occur within the Middle Kyle Complex area and on an additional area of approximately 4,900 acres.	Same as the Proposed Action.
Existing landscaping at Kyle CCC Camp, Kyle Interim Visitor Center and other developed sites in canyon would be maintained.	Implement vegetation treatment and management recommendations included in *Vegetation Management for the Kyle Campground, Kyle CCC Camp and the Proposed Middle Kyle Complex(2009),* which includes vegetative treatments at existing facilities, the proposed Middle Kyle Complex, and areas that would be restored and revegetated.	Same as the Proposed Action.
ELECTRICAL AND COMMUNICATION UTILITIES- SUMMARY BY ALTERNATIVE		
Existing overhead electrical transmission lines owned and operated by NV Energy would be maintained in current configuration.	Install new or upgraded underground electrical distribution lines within road and trail corridors in developed areas. Consider installing portions of NV Energy's overhead transmission lines underground (see *Public Utility Companies* below). Extend underground line across SR 157 Main Camping and Picnic Area and locate within road and trail corridors to facility locations in this area.	Same as the Proposed Action although location of underground electrical distribution lines would extend to location of facilities included in this alternative.
	Extend electrical service to bicycle rental facility on Harris Springs Road underground within road and trail corridors where possible.	Terminate underground electrical service at the waste treatment site and helipad area east of Main Camping and Picnic Area.

No Action Alternative	Proposed Action	Market Supported Alternative
	Move solid waste transfer station to another location, service not required.	Existing electrical service to solid waste transfer station would be maintained.
	Extend underground electrical service to employee housing area within road corridor.	Extend electrical service from employee housing area to wildlife rehabilitation facility and within road corridor to facility.
Existing Embarq communication trunk lines would be maintained in existing configuration. Lines are buried throughout project area, except areas where topography (e.g., slot canyon area and deep drainage crossings) prohibited burial.	Install new or upgraded communication lines within road and trail corridors in developed areas. Consider installing portions of Embarq's overhead communication lines underground. Leave overhead lines in areas restricted by topography, east of Main Camping and Picnic Area and over slot canyon. Relocate some segments of Embarq's buried communication lines in the Main Camping and Picnic Area outside of development areas and along road corridors (see *Public Utility Companies* below).	Same as the Proposed Action. Include overhead lines crossing slot canyon in conduits added to trail bridge, also providing a utility corridor to serve Eastern Area if future needs warrant.
WATER SYSTEM- SUMMARY BY ALTERNATIVE		
Las Vegas Valley Water District (LVVWD) would continue to supply water to facilities in western area (Fletcher View Campground, Kyle CCC Camp, and Kyle Canyon Campground) via 1 ½ -inch and 2-inch water main.	Upgrade water main distribution line to 4 to 8 inches and upgrade existing connection to the LVVWD system to serve western area. Replace water main in existing water line alignment within road and trail corridors.	Same as the Proposed Action.
The existing water system improvements on the 128-acre parcel including 2 wells and 3 water reservoirs would be maintained in current condition. Existing fiberglass storage tanks adjacent to the reservoirs would be removed. The artificial ponds in the former golf course may be retained for fire suppression needs.	Existing storage tanks, reservoirs, and aboveground distribution lines would be removed and the area including access road restored. Forest Service would develop and operate a public water system, using existing wells and water rights permitted by the State of Nevada to supply water to all proposed facilities east of Western Area.	Same as Proposed Action except connect water system for all proposed facilities east of Western Area to existing public water system, Mount Charleston Water Company (MCWC) connection.
	Water supply and distribution lines would be extended to a new water storage tank (330,000 gallons) in the Northern Area. Water line corridors would utilize road and trail corridors to the greatest extent practicable.	Connect existing wells to MCWC to provide water for proposed facilities in all project areas excluding the western area. Extend water distribution lines to project areas utilizing road and trail corridors to the greatest extent practicable.

No Action Alternative	Proposed Action	Market Supported Alternative
SEWER SYSTEM- SUMMARY BY ALTERNATIVE		
The existing restroom facilities and sewer system at Kyle CCC Camp with septic tanks and leach field would be maintained. The existing vault toilets at Kyle Canyon Campground would be maintained. Existing sewer system installed for golf course operation would remain in its current state. Additional restrooms would not be provided in middle Kyle Canyon area.	Maintain sewer systems at Kyle CCC Camp with septic tanks and leach field. Install separate on-site sewage treatment systems consisting of septic tanks and leachfields at project locations in Kyle Canyon Campground, Village, Main Camping and Picnic Area, Northern Area, and Eastern Area. Unneeded existing vault toilets and septic tanks would be properly removed or abandoned. Install restrooms with vault toilets at OHV trailhead and canyon bottom trailhead on Harris Springs Road. Install restrooms with septic tank and leachfield at bicycle concession trailhead.	Install sewer collection system connecting all project areas to a central treatment facility with lagoons or package treatment facility south of SR 157and east of Main Camping and Picnic Area. Maintain flexibility to add additional users to the system. Unneeded existing vault toilets and septic tanks would be properly removed or abandoned. Install vault toilets at trailhead restrooms on Harris Springs Road.
ROADS - SUMMARY BY ALTERNATIVE		
NFS Roads, unsurfaced – 12.9 miles	NFS Roads, unsurfaced – 0.3 mile	NFS Roads, unsurfaced – 0.6 mile
NFS Roads, paved – 0.7 mile	NFS Roads, paved – 17.1 miles	NFS Roads, paved – 12.2 miles
NFS Roads, closed/restored – 0 miles	NFS Roads, closed/restored – 5.2 miles	NFS Roads, closed/restored – 5.2 miles
NFS Roads, converted to trail – 0 miles	NFS Roads, converted to trail – 6.0 miles	NFS Roads, converted to trail – 5.6 miles
Clark County Roads, improved/paved – 0 miles	Clark County Roads, improved/paved – 0.7 mile	Clark County Roads, improved/paved – 0 miles
Unauthorized Roads – 6.9 miles	Unauthorized Roads – 0 miles	Unauthorized Roads – 0 miles
TRAILS - SUMMARY BY ALTERNATIVE		
Existing designated non-motorized trails that would be maintained in middle Kyle Canyon area: ▪ Fletcher Canyon Trail – 1.6 miles, hiking and equestrian use authorized.	Provide trail mileage designated for specific use as follows (all mileages approximate and includes Fletcher Canyon Trail mileage): ▪ Hiking only trails – 8.6 miles. ▪ Biking only trails – 2.8 miles. ▪ Hiking and biking trails – 17.4 miles. ▪ Hiking and equestrian trails – 6.0 miles. ▪ Hiking, biking and equestrian trails – 13.3 miles.	Provide trail mileage designated for specific use as follows (all mileages approximate and includes Fletcher Canyon Trail mileage): ▪ Hiking only trails – 8.6 miles. ▪ Biking only trails – 2.8 miles. ▪ Hiking and biking trails – 16.4 miles. ▪ Hiking and equestrian trails – 4.2 miles. ▪ Hiking, biking and equestrian trails – 11.8 miles.

No Action Alternative	Proposed Action	Market Supported Alternative
Existing designated motorized trails – 1.4 miles	Designated motorized trails – 0 miles	Designated motorized trails – 0 miles
Motorized trails closed/restored – 0 miles	Motorized trails closed/restored – 1.4 miles	Motorized trails closed/restored – 1.4 miles
Unauthorized trails – 16.0 miles	Unauthorized trails – 0 mile	Unauthorized trails – 0 miles
RESTORATION AND VEGETATION TREATMENTS		
Kyle CCC Camp restoration – 0 acres	1.4 acres	1.2 acres
Fletcher Canyon Trailhead parking restoration – 0 acres	0 acres	0.1 acre
Valley (former golf course restoration – 3.0 acres (includes 0.7 acre restoration in Village)	2.7 acres	2.7 acres
Northern Area restoration – 0 acre	8 acres	7.6 acres
Dump (near helipad) removal and restoration – 0 acres	0.9 acre	0.9 acre
Designated routes closed and restored – 0 acres	6.7 acres	6.7 acres
Unauthorized routes closed and restored – 0 acres	15.9 acres	15.9 acres
Vegetation Treatment - Maintain vegetation in existing developed sites with limited treatments, (e.g., removal of hazard trees)	Vegetation treatment and management plan would be implemented.	Same as the Proposed Action.
PERMITTED AND OTHER LAND OCCUPANCIES		
PUBLIC UTILITY COMPANIES		
NV Energy		
Existing utility easements and transmission lines would be maintained.	Approximately 8,900 linear feet of aerial electric transmission line north of SR 157 may be removed and installed underground within the existing utility easement. NFS trails 25871 and 25872, which follow the transmission line, would be closed to public motorized use. Approximately 3,900 linear feet of aerial electric transmission line south of SR 157 may be removed and	Same as the Proposed Action.

No Action Alternative	Proposed Action	Market Supported Alternative
	installed underground in a new utility corridor within the Kyle Canyon Wash Trail corridor. The granting of new utility easements would be required. Underground primary power utilities would be installed from NV Energy transmission lines to new NV Energy pad mount transformers at locations throughout the proposed development. Proposed improvements and easement modifications would be coordinated with NV Energy.	
Embarq		
Existing utility easements and communication lines would be maintained.	Overhead communication trunk lines in the Main Camp and Picnic Area (approximately 2,140 linear feet) may be relocated underground within the existing utility easement where feasible. Approximately 2,200 linear feet of overhead communication line north of SR 157 located on NV Energy poles may be removed and installed underground within the existing utility easement. Approximately 3,900 linear feet of overhead communication line south of SR 157 may be removed and installed underground in a new utility corridor that is within the Kyle Canyon Wash Trail corridor. The granting of new utility easements would be required. Proposed improvements and easement modifications would be coordinated with Embarq.	Underground and aerial communication trunk lines in the Main Camping and Picnic Area may be relocated to new underground locations paralleling proposed road and trail corridors. This approach would require granting new utility easements. The length of the new easement would be approximately 16,900 linear feet. Approximately 15,830 linear feet of existing utility easement would be abandoned. The aerial span across slot canyon would be removed and installed on the proposed trail bridge over Kyle wash/slot canyon. Approximately 2,200 linear feet of overhead communication line north of SR 157 located on NV Energy poles may be removed and installed underground within the existing utility easement. Approximately 3,900 linear feet of overhead communication line south of SR 157 may be removed and installed underground in a new utility corridor that is within the Kyle Canyon Wash Trail corridor. The granting of new utility easements would be required. Proposed improvements and easement modifications would be coordinated with Embarq.

No Action Alternative	Proposed Action	Market Supported Alternative
Mount Charleston Water Company		
Existing MCWC wastewater utility easements would be maintained. The Forest Service may permit the use of existing Forest Service wells for use in the MCWC public water system.	Same as the No Action Alternative except only the existing well in Kyle wash would be considered for permitting to MCWC for their water system. The other Forest Service well would be used exclusively by the Forest Service for the proposed water system that would serve the MKC development. The water system under this alternative would be operated and managed by the Forest Service.	The Forest Service would connect to the MCWC water system. The two existing Forest Service wells would be connected to the MCWC. Use of the wells and supply lines to MCWC would be authorized under a special use permit. MCWC would expand its service area to include the Forest Service facilities. The Forest Service would allocate water rights sufficient for connection to MCWC. Additional water storage, if required, would be constructed on private land adjacent to existing MCWC storage tanks. The existing wastewater easement would not be affected; however, under this alternative, which includes a central sewage treatment facility, the MCWC would have an opportunity to abandon the easement and connect to the central sewage treatment facilities. The area identified in the EIS for the wastewater treatment plant was sized to include MCWC wastewater flows. Proposed improvements and permits/agreements would be coordinated with MCWC and the State of Nevada, as appropriate.
Kyle Canyon Water District/Las Vegas Valley Water District		
Existing facilities in the Western Area are connected to the Kyle Canyon Water District, operated by LVVWD; there would be no change to existing service.	The existing Forest Service meter service connection in the Rainbow Subdivision in Mt. Charleston would be enlarged and upgraded to include backflow prevention. Proposed improvements would be coordinated and permitted through LVVWD.	Same as Proposed Action.

No Action Alternative	Proposed Action	Market Supported Alternative
Solid Waste Transfer Facility		
Permitted to Clark County and operated by Republic Services, the solid waste transfer facility is a permitted use. Occupancy at the current location would continue.	The Special Use Permit would not be reauthorized. The facility would be moved to a location off NFS lands; improvements at the current site would be removed and the area restored.	The Special Use Permit would be reauthorized at the current location with expanded requirements for visual screening. The existing access off SR 157 would be removed and restored, and a new access road off the proposed main road to the Northern Area would be established. Proposed improvements and permit modifications would be coordinated with Clark County.
PUBLIC ROAD AGENCIES		
Nevada Department of Transportation		
There would be no change to the existing NDOT facilities.	The following activities would occur within the NDOT highway easements and would require consultation, coordination, and permitting from NDOT: ▪ Pavement markings and signage for pedestrian crossings on SR 157 and SR 158. ▪ Highway widening for acceleration, deceleration, and turn lanes at major intersections. ▪ Permanent encroachments within the highway easement (frontage roads, new intersections, underground utilities). ▪ Highway information signage associated with new improvements. ▪ Improvements to some highway drainage outlets to reduce erosion and resource damage to adjacent NFS lands. ▪ Restoration of Kyle Canyon Interim Visitor Center, restroom building, and parking area. ▪ Relocation of SR 157 access to the existing NDOT Maintenance Station. This alternative does not require granting additional rights-of-way to NDOT.	Same as Proposed Action with the following exceptions: ▪ The pedestrian crossings on SR 158 to the Fletcher Canyon Trail network would not be constructed. ▪ The highway shoulder parking for the Fletcher Canyon Trailhead would be eliminated; the area would be signed for No Parking and restored. ▪ The SR 157 access to the existing NDOT Maintenance Station would not be relocated. ▪ A highway roundabout and/or highway shoulder parking with traffic calming and speed reductions may be constructed at the Village area. Construction of a roundabout would require granting additional easement width to NDOT. The additional right-of-way easement area is estimated at 0.46 acre.

No Action Alternative	Proposed Action	Market Supported Alternative
Clark County		
Existing Clark County road in the project area would continue to be maintained by the County.	The first 0.7 mile of the Harris Springs Road would be upgraded to a double-lane paved road with shoulder bike lanes meeting County road standards. The Kyle wash crossing would be improved to meet Clark County requirements. Required permits and agreements would be coordinated with Clark County.	Same as the No Action Alternative.
FIRE PROTECTION SERVICES		
Nevada Division of Forestry		
NDF would continue to operate out of its facilities located in the community of Mt. Charleston.	Space would be provided at the proposed interagency fire facilities in the Northern Area. An agreement with the Forest Service for facility occupancy, operation, and maintenance expenses would be executed.	Same as the Proposed Action except location would be closer to SR 157. A special use permit for NDF-owned facilities at the same or nearby location may also be considered.
Clark County and Mt. Charleston Volunteer Fire Department		
The Clark County and Mt. Charleston Volunteer Fire Department would continue to operate out of their facilities located in the community of Mt. Charleston.	Space would be provided at the proposed interagency fire facilities in the Northern Area for the fire engine. The Clark County and Mt. Charleston Volunteer Fire Department Emergency Services would continue to operate out of their current facility in Mt. Charleston. An agreement with the Forest Service for facility occupancy, operation, and maintenance expenses would be executed.	Same as the Proposed Action except location would be closer to SR 157.
LAW ENFORCEMENT SERVICES		
Las Vegas Metropolitan Police		
The existing Special Use Permit and occupancy at the current location north of SR 157 would continue.	The permitted occupancy would be relocated to an area adjacent to the proposed Forest Service administrative facilities in the Northern Area. The existing facilities and paved access would be removed and the site revegetated.	Space would be provided at the proposed interagency law enforcement building in the Northern Area. An agreement with the Forest Service for facility occupancy, operation, and maintenance expenses would be executed.

No Action Alternative	Proposed Action	Market Supported Alternative
Nevada Highway Patrol		
The existing periodic shared use of the Las Vegas Metro office would continue.	Same as the No Action Alternative.	Space would be provided at the proposed interagency law enforcement building in the Northern Area. An agreement with the Forest Service for facility occupancy, operation, and maintenance expenses would be executed.
WILDLIFE REHABILITATION FACILITIES		
This use does not currently exist in Kyle Canyon area.	Same as the No Action Alternative.	A permit would be issued to a local non-profit to operate a wildlife rehabilitation facility in the Telephone Canyon area for birds/raptors. The non-profit would also provide wildlife education programs at the Village. The non-profit would be responsible for the construction and maintenance costs of the proposed rehabilitation facilities.
OUTFITTER GUIDES		
Pink Jeep Tours		
The existing Special Use Permit to operate jeep tours on designated routes within the project area would continue.	The Special Use Permit would be amended to exclude those routes in the project area identified for closure to motorized vehicles.	Same as the Proposed Action.
Robert Humphries		
The existing Special Use Permit to operate guided horse and carriage rides north of SR 157 on designated routes in the Telephone Canyon area would continue.	The existing permit would not be reauthorized and a new concession contract to operate the proposed equestrian rental facilities and corrals would be competitively advertised in accordance with federal regulations.	An outfitter guide permit may be issued utilizing proposed equestrian trails identified under this alternative. Physical improvements necessary to implement this service would be provided at the permitee's expense and would be located north of SR 157 near the proposed corrals and trailhead parking, and would conform to requirements in this EIS.

No Action Alternative	Proposed Action	Market Supported Alternative
RIGHT-OF-WAY ACQUISITION NEEDS		
Clark County Assessor's Parcel Number 128-28-602-001: Existing paved access road and access rights would remain unchanged.	Existing paved road would be improved as a secondary/emergency access to the Village area if right-of-way was acquired. Formal right-of-way would be acquired from the land owner, approximately 75 feet in length and 50 feet wide (0.09 acre).	Same as the Proposed Action.
Clark County Assessor's Parcel Number 128-28-602-005: Existing occasional public use would continue on this undeveloped and unposted parcel.	The proposed Rim Trail and underground utilities would be constructed on the south portion of the private parcel if right-of-way was acquired. Formal public right-of-way would be acquired from the land owner, approximately 460 feet in length and 30 feet wide (0.32 acre).	The proposed Rim Trail and underground utilities would not be located within the private parcel. Instead, the trail and utilities would be located north of the parcel within the NDOT SR 157 right-of-way. Appropriate permits and easements would be coordinated through NDOT.

Notes:

[1] Reference in this document to a picnic or camp "site" is defined as an individual developed area that may be a single unit, double unit, or triple unit. The term "unit" refers to the number of family units at a site. For example a triple unit would have parking space for three vehicles, three picnic tables, and three tent pads at a single location, and would be counted as three units.

[2] The term "route" refers to both trails and roads, e.g., motorized Forest Service routes would include both Forest Service roads and motorized Forest Service trails (reference Forest Service Manual 7705).

[3] The terms "restored" and/or "restoration" used throughout this EIS refers to rehabilitation activities that may vary in intensity depending on the land use impacts and resources affected: it can range from a simple road or trail closure left to revegetate on its own through natural processes, to full recontouring and revegetation with erosion control measures. The intensity of restoration that would be implemented will be determined in the design process and is not identified in the EIS.

Appendix C

General Wildlife Observed within the Middle Kyle Complex Project Area

Appendix C

General Wildlife Observed within the Middle Kyle Complex Project Area

Table C-1 provides a list of the general wildlife that were observed during resource surveys conducted for the Middle Kyle Complex project. For additional information on wildlife see Section 3.3.0, *General Biological Resources*.

Table C-1. General Wildlife Observed within the Middle Kyle Complex Project Area

Avian Species	
American kestrel	House wren
American robin	Juniper titmouse
Anna's hummingbird	Lark sparrow
Ash-throated flycatcher	Lazuli bunting
Bewick's wren	LeConte's thrasher
Black phoebe	Lesser goldfinch
Black-chinned sparrow	MacGillivray's warbler
Black-headed grosbeak	Mountain chickadee
Black-throated gray warbler	Mourning dove
Black-throated sparrow	Northern flicker
Blue-gray gnatcatcher	Northern rough-winged swallow
Brewer's blackbird	Orange-crowned warbler
Brewer's sparrow	Pine siskin
Broad-tailed hummingbird	Pinyon jay
Brown-headed cowbird	Plumbeous vireo
Bullock's oriole	Red crossbill
Bushtit	Red-tailed hawk
Canyon wren	Rock wren
Chipping sparrow	Rose-breasted grosbeak
Chukar	Rufous hummingbird
Cliff swallow	Sage sparrow

Common raven	Say’s phoebe
Common nighthawk	Scott's oriole
Common yellowthroat	Spotted towhee
Cooper's hawk	Townsend's solitaire
Crissal thrasher	Tree swallow
Dark-eyed junco	Violet-green swallow
Downy woodpecker	Virginia's warbler
European starling	Western bluebird
Evening grosbeak	Western kingbird
Gambel's quail	Western scrub-jay
Golden eagle	Western tanager
Gray flycatcher	Western wood-pewee
Gray vireo	White-throated swift
Green-tailed towhee	Wilson's warbler
Hermit thrush	Yellow-rumped warbler
House finch	Yellow warbler
House sparrow	
Bat Species	
Pallid bat	Little brown myotis
Townsend’s big-eared bat	Fringed myotis
Big brown bat	Long-legged myotis
Silver-haired bat	Yuma myotis
California myotis	Western pipistrelle
Small-footed myotis	Brazilian free-tailed bat
Long-eared myotis	
Reptile Species	
Western whiptail	Western fence lizard
Sagebrush lizard	Side-blotched lizard
Desert spiny lizard	Desert night lizard

Appendix D

Summary of Revisions since the DEIS

Appendix D

Summary of Revisions since the Draft Environmental Impact Statement

Changes, corrections, and clarifications have been made to the *Middle Kyle Complex Draft Environmental Impact Statement* (DEIS) based on public and agency comments and internal review. The majority of the changes were made to improve the clarity and intent of the information, and resource impacts were updated based on input from resource agencies. The changes reflected in the EIS are within the scope and analysis of the DEIS and did not change the analysis of environmental consequences. Only substantive changes to the text or figures are described; grammatical or punctuation corrections are not included in the summary.

Several general changes were made throughout the EIS including the following:

- The content of the DEIS has been updated or changed, where appropriate:
  - Appendix A, *Forest Service Responses to Scoping Comments* in the DEIS is now Appendix A, *Response to Public Comment* in the FEIS.
  - Section 3.8, *Nuwuvi and the Spring Mountains Landscape* has been added to Chapter 3, and
  - Appendix D, *Summary of Revisions since the Draft Environmental Impact Statement* has been added.
- The term "heritage resources" has been revised to "cultural resources". This change was made because of revised policy direction in Forest Service Manual 2360 revising the term "heritage resource(s)" and comments submitted by the Nuwuvi Working Group.
- Document references were updated between the DEIS and FEIS. Several supporting documents were finalized and the titles or dates of the documents were updated, where applicable, in the EIS text. In addition, three documents have been divided into separate botany and wildlife resource reports. These documents included the Biological Assessment/Biological Evaluation (BA/BE), Management Indicator Species (MIS) reports, and biological specialist reports. The references to the individual reports were revised as appropriate.

The DEIS is available for review in the project record at the Spring Mountains National Recreation Area (SMNRA) office in Las Vegas, Nevada. Appendix A, *Forest Service Responses to Scoping Comments*, of the DEIS will be posted on the Forest Service's Web site during the administrative appeal period.

Table D-1 presents a summary of revisions since the DEIS that have been incorporated into the FEIS.

Table D-1. Summary of Revisions since the Draft Environmental Impact Statement

Section and Page Number	Description of Change
CHAPTER 1 PURPOSE OF AND NEED FOR ACTION	
Section 1.3.1, page 1-12	The *Existing Condition* discussion has been revised to incorporate comments submitted by the Nuwuvi Working Group (see the responses to comment numbers 24 and 25 in Appendix A4).
Section 1.6.1, page 1-28	The second bullet item has been revised to incorporate comments made by the Nuwuvi Working Group (see the responses to comment numbers 35 and 36 in Appendix A4).
Section 1.6.3, page 1-29	Section 1.6.3, *Notice of Availability* was added to Chapter 1 to include information regarding release of the DEIS for public review and comment.
Section 1.6.5, page 1-30	Section 1.6.5, *American Indian Collaboration*, has been revised to incorporate comments made by the Nuwuvi Working Group (see the response to comment number 37 in Appendix A4). In addition, this section was updated and additional detail regarding the collaborative process that has occurred during development of the EIS was added.
Section 1.7.2, page 1-32	The third paragraph was deleted from the EIS because it was incorrect and inconsistent with the discussion of effects in Chapter 3, *Affected Environment and Environmental Consequences*.
Section 1.7.2, page 1-32	The last two paragraphs of this section were deleted. Consultation and coordination with the culturally affiliated tribes, Nevada State Historic Preservation Office (SHPO) and U.S. Fish and Wildlife Service (USFWS) is disclosed in the Section 1.6.5, *American Indian Collaboration*, Table 2-3, *Summary Comparison of Effects by Alternative*, Section 3.4, *Cultural Resources*, Section 3.3, *Biological Resources*, Section 3.7, *Required Disclosures and Executive Orders* and Chapter 4, *Consultation and Coordination* of the EIS.
Figure 1-3, Proposed Action	The figure was modified to clarify components of the Proposed Action including ▪ the Main Camping and Picnic Area main access road alignment was shifted south so it was not overlain by SR 157, and ▪ the location of the gate at the southern terminus of this same road was realigned to be more apparent. Two corrections were also made to the figure: ▪ the waste treatment facility at the trailhead on Harris Springs Road was removed, and ▪ the location of the communication line was moved to the east.
Figure 1-4, Proposed Dispersed Camping Closure Areas	The figure's legend has been corrected to identify that the La Madre Wilderness Area is not a wilderness study area.

Section and Page Number	Description of Change
CHAPTER 2 ALTERNATIVES, INCLUDING THE PROPOSED ACTION	
Section 2.3, page 2-24	Table 2-2, *Issue Comparison by Alternative*, has been updated based on coordination with the USFWS during review of the wildlife BA/BE. The acreage of permanent and temporary impacts on known Spring Mountains acastus checkerspot butterfly (*Chlosyne acastus robusta*) foraging habitat within Kyle wash was revised to include adjacent habitat that could experience impacts from project implementation. The acreage of permanent and temporary impacts on known mate selection habitat in Kyle wash was also revised.
Section 2.3, pages 2-27 and 2-28	In Table 2-3, *Summary Comparison of Effects by Alternative*, the Cultural Resources row has been updated regarding the number of sites recommended as National Register of Historic Places (NRHP) eligible, potential effects on cultural resources, and the status of Section 106 of the National Historic Preservation Act (NHPA) consultation with the Nevada SHPO and culturally affiliated tribes. In addition, new text was added to incorporate comments submitted by the Nuwuvi Working Group (see the responses to comment numbers 54 through 58 in Appendix A4).
Section 2.3, pages 2-39 and 2-30	In Table 2-3, *Summary Comparison of Effects by Alternative*, the Effects on Natural Landscape Character row has been revised to incorporate comments submitted by the Nuwuvi Working Group (see the response to comment number 59 in Appendix A4).
Section 2.3.1, 2-36	In Table 2-4, *Design Criteria Common to Action Alternatives*, wildlife design criterion W1 has been revised. The last sentence of the second bullet item has been deleted based on a comment made by the Nuwuvi Working Group (see the response to comment number 64 in Appendix A4).
Figure 2-4, Market Supported Alternative	This figure was modified to correctly illustrate the location of proposed underground and abandoned utility lines, the location of the Administrative/Interagency facility was moved to the correct location to the east and the location of the gate at the southern terminus of the Main Camping and Picnic Area road was realigned to distinguish it from the project boundary.
CHAPTER 3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES	
Section 3.0, page 3.2	This section has been revised to clarify that Section 3.2 through Section 3.5 include a description of the affected environment for the respective resources in these sections.
Section 3.2.1, page 3.2-6 and page 3.2-10	The discussion regarding hunting, trapping, and recreational shooting under the Proposed Action in Table 3.2-1, *Comparison of Effects by Alternative* on page 3.2-6, has been revised. A sentence was added to clarify that recreational shooting (e.g., target practice) would be allowed outside 150 yards of developed areas. In addition, this sentence was added to the first paragraph on page 3.2-10.
Section 3.3.2, page 3.3-8 and page 3.3-13	The impact discussion on Spring Mountains acastus checkerspot butterfly habitat under the Proposed Action has been revised based on coordination with the USFWS during review of the wildlife BA/BE. This same information was updated in Table 3.3-3, *Summary of Species Analyzed in Detail and Determination of Effects for the Proposed Action and Market Supported Alternative*.
Section 3.3.3, page 3.3-20	In Table 3.3-3, *Summary of Species Analyzed in Detail and Determination of Effects for the Proposed Action and Market Supported Alternative*, the species name in the Proposed Action column has been corrected for two species: the Great Basin collared lizard (*Crotophytus insularis bicinctores*) and the western red-tailed skink (*Eumeces gilberti rubricaudatus*).

Section and Page Number	Description of Change
Section 3.4.1, page 3.4-2	This text has been updated to incorporate comments submitted by the Nuwuvi Working Group (see the response to comment number 84 in Appendix A4).
Section 3.4.1, pages 3.4-2-3.4-3	Table 3.4-1 has been deleted from the section and updated text has been added to reflect the revised information included the final version of the *Middle Kyle Complex Cultural Resources Survey*. The updated text provides information on the number of previously recorded sites, newly recorded sites, and those sites recommended eligible for listing in the NRHP located in the project area of potential effect. In addition, updated text has been added identifying the potential adverse effect on NRHP-eligible sites and the status of the Section 106 of NHPA consultation with the Nevada SHPO.
Section 3.4.2, pages 3.4-5	The description of effects on NRHP-eligible sites under the Proposed Action and Market Supported Alternative has been updated to reflect the potential for adverse effects. In addition, text has been added to incorporate comments submitted by the Nuwuvi Working Group (see the response to comment number 57 in Appendix A4).
Section 3.5.1, page 3.5-3	A paragraph has been added to this section to incorporate comments submitted by the Nuwuvi Working Group (see the response to comment number 59 in Appendix A4).
Section 3.5.2, page 3.5-11	A paragraph has been added to the *Effects on Natural Landscape Character* discussion to incorporate comments submitted by the Nuwuvi Working Group (see the response to comment number 59 in Appendix A4).
Section 3.6.3, page 3.6-3	A sentence has been added to the last paragraph in this section clarifying that a project-specific amendment to the General Management Plan (GMP) would be required if either action alternative is implemented.
Section 3.7.3, page 3.7-3	This section has been updated to include the unavoidable adverse effect on the landscape important to the culturally affiliated Nuwuvi tribes.
Section 3.7.4, page 3.7-3	This section has been updated to include the acreage of impacts on the Spring Mountains acastus checkerspot butterfly habitat that was revised based on coordination with the USFWS.
Section 3.7.7, page 3.7-11	The last paragraph in this section was replaced with updated text regarding receipt of the Preliminary Jurisdictional Determination from the U.S. Army Corps of Engineers.
Section 3.7.12, page 3.7-15	This section has been updated regarding the status of the Section 106 of the NHPA consultation with Nevada SHPO.
Section 3.7.15, page 3.7-16	This section has been revised to incorporate comments submitted by the Nuwuvi Working Group (see the responses to comment numbers 37, 56 and 93 in Appendix A4).
CHAPTER 4 CONSULTATION AND COORDINATION	
Section 4.1, page 4-1	This chapter has been updated to reflect the status of consultation and coordination efforts that changed between the DEIS and FEIS.
Section 4.2, page 4-1	Table 4-1 has been updated to include the names of persons who participated in or contributed to the preparation of the EIS.
Section 4.3.1, page 4-5	The list of federal, state, and local agencies has been updated to include the Advisory Council on Historic Preservation and U.S. Army Corps of Engineers.