



Chapter Three: MANAGEMENT ALTERNATIVES

INTRODUCTION

This chapter presents three alternatives, including the agencies' preferred alternative, for management of the eight wilderness areas within and adjacent to Lake Mead National Recreation Area. The three alternatives embody the range of management options that the public and agency staff want to see regarding the wilderness areas. The alternatives primarily focus on different ways to provide visitor access into and within the wilderness areas and to manage visitor use. Alternative A, the no-action alternative, presents a continuation of current management direction and is included as a baseline for comparing the consequences of implementing each alternative. Alternative B is the agencies' preferred alternative for the eight wilderness areas. Alternative C presents slightly different ways to manage visitor use in the areas. All of the alternatives are consistent with laws and NPS and BLM policies governing wilderness.

As noted in the "Foundation for Planning and Management" section of chapter 1, the National Park Service and Bureau of Land Management would continue to follow relevant laws and policies, special mandates, and administrative commitments that pertain to management of the wilderness areas regardless of which alternative in this wilderness management plan/environmental assessment is selected for implementation. These special mandates, laws, and policies are not repeated here. Likewise, the wilderness management directions and policies described in chapter 2 also are not repeated here.

Before describing the alternatives, this chapter explains how the alternatives were developed and how the preferred alternative was identified. Other sections describe the management zones (a key element of the alternatives) and the approaches taken to address user capacity. After the alternatives are described, mitigative measures that would

be used to reduce or avoid impacts are listed and the environmentally preferable alternative is identified. At the end of the chapter there are tables that summarize the key differences among the alternatives, and the differences in impacts that would be expected from implementing each alternative based on the analysis in "Chapter 5: Environmental Consequences."

FORMULATION OF THE ALTERNATIVES

The alternatives included in this chapter were developed by an interdisciplinary team with members from both the National Park Service and the Bureau of Land Management. The two action alternatives were based on issues and concerns identified by the public and NPS and BLM staff during the scoping period (see the "Scope of the Plan" section in chapter 1). The alternatives also were based on ensuring protection of the areas' wilderness character, providing opportunities for visitor access and use of the wilderness areas, including access to key attractions, and on relevant demographic trends in the region.

Each alternative is intended to effectively and efficiently manage the wilderness areas, and address all of the issues. All of the alternatives seek to balance protection of wilderness qualities with visitor opportunities: they all were developed to be functional and viable. However, the alternatives vary in their focus with regard to opportunities for visitor experiences in the wilderness areas and for facilities within and adjacent to the wilderness areas.

The implementation of any alternative depends on future funding and environmental compliance. This plan does not guarantee that funding will be forthcoming. The plan

establishes a vision of the future that would guide day-to-day and year-to-year management of the wilderness areas, but full implementation could take many years.

IDENTIFICATION OF THE AGENCIES' PREFERRED ALTERNATIVE

The preferred alternative was developed through a process called “Choosing by Advantages” (CBA). Using this process, the planning team identified and compared the relative advantages of each alternative according to a set of factors. The benefits or advantages of each alternative were compared for each of the following CBA factors:

- protection of wilderness character
- protection of natural resources
- protection of cultural resources
- improvement of the visitor experience
- improvement of agency operations

The planning team examined each wilderness area, identifying advantages regarding each of the above factors. Each alternative was then ranked based on the advantages. The planning team determined that alternative B gives the National Park Service and Bureau of Land Management the greatest overall benefits based on the factors listed above.

MANAGEMENT ZONES

Management zones apply to different areas of the wilderness areas and consist of descriptions of the desired conditions for natural and cultural resources, visitor experiences, and facilities in those different areas. Together, they identify the widest range of potential resource conditions, visitor experiences, and facilities for the wilderness areas. Two potential management zones were identified for the eight wilderness areas. These management zones are described in table 3.

In formulating the two action alternatives, the management zones were placed in different

locations or configurations on a map of the wilderness areas. The management actions described later in this chapter are consistent with these two management zones.

NPS Management Policies 2006 (§6.3.4.2) requires wilderness management plans to establish indicators, standards, conditions and thresholds “...beyond which management actions will be taken to reduce human impacts on wilderness resources.” Likewise, BLM’s 8560 Manual, “Management of Designated Wilderness Areas” (§.14C) requires the user capacity of wilderness areas to be determined. User capacity is defined as the type and level of visitor use that can be accommodated while sustaining the quality of resources and visitor opportunities consistent with the purposes of a wilderness area. It is not necessarily a set of numbers or limits, but rather a process involving monitoring, evaluation, actions (managing visitor use), and adjustments to ensure a wilderness area’s values are protected.

With any use on public lands comes some level of impact that must be accepted. However, the goal is to restore wilderness character and to maintain it and preserve it without degradation. Therefore it is the responsibility of the National Park Service and Bureau of Land Management to decide what level of impact is acceptable and what actions are needed to keep impacts within acceptable limits. Instead of solely tracking and controlling user numbers, NPS and BLM staff manage the levels, types, and patterns of visitor use and other public uses as needed to manage the condition of the resources and the quality of the visitor experience. The monitoring component of this process helps test the effectiveness of management actions and provides a basis for informed adaptive management of public use.

The foundation for user capacity decision making is the qualitative descriptions of desired resource conditions, visitor experience opportunities, and general levels of development and management described in the management zones. Based on these

desired conditions, indicators and standards are identified. An indicator is a measurable variable that can be used to track changes in resource and social conditions related to

human activity, so that existing conditions can be compared to desired conditions. A standard is the minimum acceptable condition for an indicator.

Table 3: Potential Management Zones for Lake Mead NRA/BLM Wilderness Areas

TOPIC	ZONE 1	ZONE 2
Concept	<ul style="list-style-type: none"> - Largely natural, unmodified landscape, with natural processes predominating; natural ecological functions, components, and processes would not be influenced by human use except for a few minimal modifications in localized areas - Provides a diversity of opportunity for wilderness activities that are relatively accessible to day users and to those who have limited wilderness travel skills or equipment 	<ul style="list-style-type: none"> - Essentially an untouched environment appearing to have been affected primarily by the forces of nature; natural ecological functions, components, and processes would be minimally influenced by human use - Provides opportunities for wilderness activities suitable for day users and overnight users in areas that are remote and require self-reliance; high amount of outdoor skill needed
Natural Resource Conditions	<ul style="list-style-type: none"> - The areas would appear to be largely undisturbed, with natural processes and surroundings predominating - Tolerance for degradation of natural resources and processes due to use would be low - Some resources may be manipulated along travel routes to direct visitors and avoid resource impacts, but they would be subtle and harmonize with the natural environment; the natural setting may be modified for visitor access but in ways that protect resources and have minimal visual impact - Management decisions would support healthy, viable, and naturally distributed wildlife and plant populations - Some natural resources and processes may be altered to preserve/maintain significant cultural resources, but such changes would be kept to the minimum extent possible 	<ul style="list-style-type: none"> - The areas would generally appear to have been primarily affected by the forces of nature - Tolerance for degradation of natural resources and processes due to human use would be very low - A few resources may be slightly manipulated along travel routes to direct visitors and avoid resource impacts, but they would be subtle and harmonize with the natural environment; the natural setting would not be modified for visitor access - Management decisions would support healthy, viable, and naturally distributed wildlife and plant populations - Some natural resources and processes may be altered to preserve/maintain significant cultural resources, but such changes would be kept to the minimum extent possible

TOPIC	ZONE 1	ZONE 2
Natural Resource Restoration	- Resources may be altered or manipulated if necessary to restore areas that have been disturbed or impacted by people or nonnative species	- Resources may be altered or manipulated if necessary to restore areas that have been disturbed or impacted by people or nonnative species
Cultural Resources	<ul style="list-style-type: none"> - Cultural resources would be documented and protected - Treatment methods would be consistent with the preservation of wilderness character and values 	<ul style="list-style-type: none"> - Cultural resources would be documented and protected - Treatment methods would be consistent with the preservation of wilderness character and values
Stock Use (Pack & Saddle) and Recreational Riding	- Recreational riding and public use of stock would be permitted on designated washes at designated times	- Recreational riding and public use of stock would be permitted on designated washes and at designated times
Visitor Use and Experience	<ul style="list-style-type: none"> - There would be opportunities to experience solitude and quiet; visitors would feel apart from other people, but not entirely alone; some sights and sounds of human activity would be present and the areas would feel less remote than zone 2 - Visitors would often not see or hear other visitors; the probability of encountering other people, including large groups, would be low throughout the year - Use of on-site management and site modification may be evident <p>Visitor contacts by agency staff would be rare</p>	<ul style="list-style-type: none"> - There would be an opportunity of feeling being alone in a remote area with few if any sights and sounds of human activity; visitors could have a sense of being immersed in a totally natural landscape - The probability of encountering other people would be very low throughout the year; visitors would rarely see or hear other visitors; visitors would not usually expect to encounter any other groups - Direct on-site management of visitors would not be practiced (unless required to reduce degradation); there would be little or no evidence of site management <p>Visitor contacts by agency staff would be very rare</p>
Party (Group) Size	- Group sizes would be limited to 12 or fewer people; groups larger than 12 would be divided	- Group sizes would be limited to 12 or fewer people; groups larger than 12 would be divided
Designated Routes (Cairns); Route Standards	<ul style="list-style-type: none"> - If routes are established to provide recreation opportunities and to prevent resource damage, they would be narrow and unpaved; new routes would generally follow user-created routes where appropriate - Routes would be identified with cairns 	<ul style="list-style-type: none"> -There would be no designated routes unless required to prevent/reduce resource degradation - Routes would be defined and marked with agency-identifiable cairns if necessary to prevent resource damage

TOPIC	ZONE 1	ZONE 2
Signs	- Signs may be provided for resource protection and visitor safety purposes; no interpretive or orientation signs (other than at boundary of the wilderness)	- No signs provided
Campsites	<ul style="list-style-type: none"> - No campsites would be designated unless necessary for resource protection - Dispersed camping would be permitted on durable surfaces; visitors would rarely see previously used sites - Campfires would be permitted if conditions allow, although stoves would be encouraged; all fire rings would be removed when discovered - Leave No Trace ethics would be promoted 	<ul style="list-style-type: none"> - No campsites would be designated unless necessary for resource protection - Dispersed camping would be permitted on durable surfaces; visitors would rarely see previously used sites - Campfires would be permitted if conditions allow, although stoves would be encouraged; all fire rings would be removed when discovered - Leave No Trace ethics would be promoted
Commercial Services (guides and outfitters)	<ul style="list-style-type: none"> - Subject to the commercial use permitting authorization process, hunting services would be permitted - Other guiding services for academically oriented organizations whose primary purpose is wilderness or environmental education and organizations whose service is primarily for the support of people with disabilities may be permitted if determined to be necessary and appropriate - At Spirit Mountain, commercial use would not be permitted without consultation with Native American Tribes 	<ul style="list-style-type: none"> - Subject to the commercial use permitting authorization process, hunting services would be permitted - Other guiding services for academically oriented organizations whose primary purpose is wilderness or environmental education and organizations whose service is primarily for the support of people with disabilities may be permitted if determined to be necessary and appropriate - At Spirit Mountain, commercial use would not be permitted without consultation with the Native American Tribes
Administrative Access	Use of aircraft – see <i>Aerial Operations Plan and Fire Management Plan</i>	Use of aircraft – see <i>Aerial Operations Plan and Fire Management Plan</i>
Administrative Facilities and Structures	- Limited administrative facilities may be maintained if they are needed for management of the wilderness area or for parkwide or field area-wide management (e.g., radio repeaters, weather stations) per a minimum requirement analysis; any necessary facilities would be temporary and located where rarely viewed by visitors	- There would be no new administrative facilities with the possible exceptions of research equipment and monitoring devices per a minimum requirement analysis

User capacity decision making is a continuous process; decisions are adjusted based on monitoring the indicators and standards. Management actions are taken to minimize impacts when needed. The indicators and standards included in this management plan would generally not change in the future. However, as monitoring of the wilderness areas' conditions continues, managers may decide to modify, add, or delete indicators if better ways are found to measure important changes in resource and social conditions. The public would be notified of the results of the NPS and BLM monitoring efforts, related visitor use management actions, and any changes to the indicators and standards.

Indicators and Standards

This wilderness management plan includes identification of user capacity indicators and standards. Table 4 includes the indicators, standards, related monitoring, and potential future management strategies that would be implemented as a result of this planning effort. These indicators and standards help translate the broader qualitative descriptions of desired conditions into measurable conditions.

Measurable indicators have been selected for monitoring key aspects of visitor experiences and resources in the eight wilderness areas. Standards that represent the points where visitor experience and resource conditions become unacceptable in each zone were then assigned based on desired conditions. The indicators would be monitored, and when necessary, management actions would be taken to ensure that visitor use and resource impacts remain within the established standards.

The planning team considered other potential resource indicators that would identify visitor use impacts of concern, but many were eliminated because they were not easy to monitor or did not provide adequate information on the issue of concern. Fourteen sets of indicators and standards were selected as measures of visitor use effects at the eight wilderness areas.

Natural Resource Indicators

The physical and biological (natural resources) indicators for the eight wilderness areas relate to the topics of user-created trails (visitors going off the designated routes and creating new, unofficial trails); disturbance resulting from motorized/mechanized use; occurrences and extent of nonnative species, specifically London rocket (*Sisymbrium irio*) and tumble mustard (*Sisymbrium altissimum*); level of disturbance at spring sites; occurrences of dumping; and the number of user-created campsites. These indicators can be monitored effectively while providing useful information about important resource impacts.

The biological indicators were selected to measure the disturbances to vegetation and soil resources from any uses that could potentially adversely affect the naturalness, natural resource processes, and distribution of wildlife and plant populations in the wilderness areas.

Social or Visitor Experience Indicators

Park Service and BLM staff also considered several potential social or visitor experience indicators that would measure how visitor use levels, types of use, and visitor behaviors were affecting other visitors. The social indicators selected relate to visitor encounter rates on designated routes, and noise levels, as well as visitor encounters with litter and human waste.

These indicators were selected to measure the level and extent of human occupation in the wilderness areas that may affect visitor opportunities for solitude and quiet.

Cultural Resource Indicators

The cultural resource indicators for Lake Mead National Recreation Area wilderness relate to the topics of disturbance levels to cultural sites; impacts associated with the ethnographic values of Spirit Mountain; and incidences of graffiti on rock art, other archeological sites, rocks, and government property.

These indicators were selected to measure the level and extent that cultural resources preservation and the maintenance of significant cultural resources and ethnographic values are being affected by inappropriate visitor behavior.

Standards and Monitoring

The standards for each indicator were based on best professional judgment that was informed by the wilderness management plan's desired conditions, the wilderness areas' baseline conditions for each indicator, and relevant wilderness-specific studies and national research studies.

National Park Service and BLM staff and volunteers from the wilderness stewardship program will monitor of use levels and patterns. (See the section on wilderness monitoring in Chapter 2 regarding more details on the wilderness stewardship program.) In addition, NPS and BLM staff and volunteers will begin monitoring the user capacity indicators. The rigor of monitoring the indicators (e.g., the frequency of monitoring cycles and/or the amount of geographic area monitored) may vary considerably, depending on how close existing conditions are to the standards. If the existing conditions are far below the standard, the rigor of monitoring may be less than if the existing conditions are close to or trending toward the standards.

In addition, the initial phases of monitoring for the indicators and standards defined above and detailed in Table 4 would help the NPS and BLM staff identify if any revisions are needed. The initial testing of the indicators and standards will determine if the indicators are accurately measuring the conditions of

concern. Park Service and BLM staff may decide to modify the indicators or standards and revise the monitoring program if better ways (more effective and efficient methods) are found to measure changes caused by visitor use. Most of these changes should be made within the first several years of initiating monitoring. The iterative learning and refining process is the strength of this approach to managing user capacity; it can be adapted and improved as knowledge grows.

After this initial testing period of monitoring indicators and standards, adjustments should not occur unless there is a compelling reason. Park Service and BLM staff need to be cautious of adjusting indicators and standards to a point where the indicators and standards are no longer consistent with the desired conditions. If desired conditions and subsequently indicators and standards need to be changed, these decisions may be subject to additional compliance.

Finally, if use levels and patterns change substantially, NPS and BLM staff may need to initiate additional monitoring of new indicators to ensure that desired conditions are maintained. The selection of any new indicators and standards for monitoring purposes, changes to the indicators and standards identified in this wilderness management plan, or the implementation of any management actions that would affect use would comply with NEPA, NHPA, and other laws, regulations, and policies as needed. Park Service and BLM staff would also inform the public of progress and proposed revisions to indicators and standards through regular reporting on user capacity management.

Table 4: Wilderness Management Plan User Capacity Indicators and Standards, and Strategies for Management

Desired Condition	Indicator	Standard	Potential Future Management Strategies
SOCIAL <i>High quality opportunities for visitors to find naturalness, solitude, and quiet</i>	Number of encounters with other visitor groups during a visit to the wilderness area more than a $\frac{1}{2}$ mile from the wilderness boundary	Encounters with other groups (within sight and sound of one another) more than a $\frac{1}{2}$ mile from the wilderness boundary would be infrequent, with no more than eight groups encountered per day, with this standard exceeded no more than four days per year	<ul style="list-style-type: none"> • Education (appropriate behaviors, voluntary distribution of use to other areas or off-peak times) • Redistribute use (time & space) • Limit use (limit length of stay, group sizes, levels of use)
	Noise levels, measured by maximum decibels, from human caused sources (excluding overflights and firearms)	No noise exceeding 60 decibels (measured on the A-weighted scale) at 50 feet would occur	<ul style="list-style-type: none"> • Education (appropriate behaviors) • Restrict activities • Limit levels of use
	Pieces* of litter per mile of route * A “piece” of litter is considered to be at minimum, the size of shotgun shells and/or candy wrappers.	Zone 1: No more than ten pieces per mile of designated route; no geocaches Zone 2: No more than five pieces per mile of designated route; no geocaches	<ul style="list-style-type: none"> • Education (Leave No Trace) • Place trash receptacles (where appropriate) • Monitor for and remove the advertised geocaches from websites
	Number of encounters with human waste	No more than 5% of visitors encounter evidence of human waste in the wilderness areas (standards would be achieved for 95% of all measurements or samples obtained through monitoring over the course of a visitor season)	<ul style="list-style-type: none"> • Remove human waste when observed • Education • Provide facilities at trailheads • Provide waste bags

Desired Condition	Indicator	Standard	Potential Future Management Strategies
PHYSICAL and BIOLOGICAL Protection of naturalness and natural resource processes, including viable and naturally distributed wildlife and plant populations	Number of user-created trails to an area or feature	No more than 2 user-created trails that are outside of NPS/BLM marked trails, except for Spirit Mountain and Bridge Canyon, Wildernesses where this indicator would not be monitored	<ul style="list-style-type: none"> • Education (resource sensitivity; appropriate behaviors) • Obliterate excess routes/trails • Designate routes/trails and sign accordingly • Limit use • Temporarily close areas
	Area (in acres) of disturbance resulting from motorized/mechanized use	For each wilderness area: No increase, from the previously monitored baseline, in the area of disturbance (measured in acres) resulting from motorized/ mechanized use	<ul style="list-style-type: none"> • Education (regulations, appropriate behaviors, reporting process of illegal uses to staff) • Signage at wilderness boundaries • Increase surveillance • Impose fines • Improve interagency coordination
	Occurrences and extent of invasions of London rocket (<i>Sisymbrium irio</i>) and tumble mustard (<i>Sisymbrium altissimum</i>)	No new occurrences of <i>Sisymbrium irio</i> and <i>Sisymbrium altissimum</i> where they do not presently exist; no spread or growth of existing invasions	<ul style="list-style-type: none"> • Education • Require weed free hay for stock • Require the cleaning of gear and equipment that is capable of transferring plant material • Temporarily or permanently close areas
	Level of disturbance of spring sites*	No negative change in disturbance level of any given spring site, compared to the previously monitored baseline, and no spring sites above a moderate disturbance level (as defined by Sada & Pohlmann 2006)	<ul style="list-style-type: none"> • Education • Restrictions on camping and fires • Revegetation • Increased enforcement • Removal of human structures and litter • Temporarily or permanently close areas

Desired Condition	Indicator	Standard	Potential Future Management Strategies
PHYSICAL and BIOLOGICAL: <i>(continued)</i>	Occurrences of dumping	No new occurrences of dumping	<ul style="list-style-type: none"> • Education (regulations, appropriate behaviors, reporting process of illegal uses to staff) • Sign accordingly (informational wayside exhibits/kiosks) • Increase law enforcement • Temporarily or permanently close areas • Immediate removal of dumped materials
	Number of user-created campsites* per $\frac{1}{4}$ mile and within 100 ft of sensitive resources *As evidenced by obvious fire activity (e.g., blackened soil, fire rings, burnt materials)	No more than 1 user-created campsite per $\frac{1}{4}$ mile; no user created campsites within 100 feet of sensitive resources (springs, archeological sites, etc.)	<ul style="list-style-type: none"> • Education (resource sensitivity & appropriate behaviors) • Obliterate unofficial campsites • Designate official campsites/concentrated use areas • Assign campsite locations and/or travel routes • Temporarily or permanently close areas • Restrict building of campfires
CULTURAL: <i>Preserve and maintain significant cultural resources, including ethnographic values</i>	Change in disturbance level* to cultural sites *Disturbance levels defined by the Southern Nevada Agency Partnership Cultural Site Stewardship Program.	No negative change in disturbance level of any given cultural site, compared to the previously monitored baseline, and no cultural sites above a minor disturbance level (impact level 1)	<ul style="list-style-type: none"> • Take appropriate site stewardship action based on level of impact under the guidance of the park cultural resource specialists. • Education • Restrictions on camping and fires • Restrictions on route use • Increased enforcement • Removal of litter and other debris • Revegetation

Desired Condition	Indicator	Standard	Potential Future Management Strategies
CULTURAL (continued)			<ul style="list-style-type: none"> • Temporary or permanently close areas
	Incidences of graffiti on rock art, other archeological sites, rocks, and government property	No new evidence of graffiti	<ul style="list-style-type: none"> • Education (appropriate behaviors; regulations, process of reporting graffiti to staff) • Remove routes/parking near areas • Temporarily or permanently close areas • Discourage the site being advertised/promoted • Increase area surveillance • Impose fines/post warning signs
	Consultation with the tribe	Concerns raised by tribe	<ul style="list-style-type: none"> • Education (resource sensitivity; appropriate behaviors; regulations, reporting process of illegal uses to staff) • Discourage the site being advertised/promoted • Increase area surveillance • Impose fines/post warning signs • Regulate public use (e.g., institute a permit system)

ALTERNATIVE A (NO ACTION)

CONCEPT AND SUMMARY

Alternative A provides a baseline for evaluating changes and impacts in the other alternatives. In this alternative, the no-action alternative, the National Park Service and Bureau of Land Management would continue to provide minimal management of the eight wilderness areas as has been the case since the wilderness areas were established in 2002. For the foreseeable future, there would be no major change in the management of the wilderness areas. NPS and BLM managers would continue to strive to protect and maintain current natural and cultural resource conditions in the areas, and provide for quality visitor experiences.

Existing visitor uses (e.g., hiking, rock climbing) would continue. Dispersed access into the areas would continue. The agencies would not change access to or within the wilderness areas, or current efforts in educating visitors and the public about the areas. One existing trail that enters the Pinto Valley Wilderness—the Redstone Dune Trail—would continue to be maintained. No cairns that mark routes would be maintained. Existing access points at Pinto Valley (e.g., Redstone picnic area), Spirit Mountain (Pipe Springs road trailhead), and Bridge Canyon (the parking area at Sacatone Wash and Christmas Tree Pass Road and the Grapevine Canyon trailhead) would continue to be maintained. Existing signs on the wilderness boundary and within the wilderness areas would be maintained. There would continue to be little effort expended by the agencies on orienting, interpreting, informing, and educating visitors and the public about the wilderness areas.

Natural and cultural resource management efforts would continue as they are, without substantial changes. Natural resource efforts would continue to focus on resource protection and the restoration of noticeably

disturbed areas and on inventorying and monitoring. No actions would be taken with regard to user-created trails, such as the user-created route at the end of Approved Road 59 in the Black Canyon, unless sensitive resources were being adversely affected. Cultural resource management efforts also would continue to focus on surveying and monitoring cultural resources and protecting historic structures. Natural and cultural resources would continue to be managed under existing approved plans (e.g., fire management plan, the Clark County *Multi-Species Habitat Conservation Plan, Las Vegas Resource Management Plan*). As appropriate, archeological surveys or monitoring would precede any ground disturbance associated with excavation or construction, and national register – eligible or national register – listed archeological resources would be avoided to the greatest extent possible. To appropriately preserve and protect national register – listed or national register – eligible historic structures, all stabilization, preservation, and rehabilitation efforts, as well as daily, cyclical, and seasonal maintenance, would be undertaken in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (1995).

MANAGEMENT ZONING

Currently, there are management zones existing in the wilderness areas. These zones that describe future desired resource and visitor experience conditions have not been applied to the wilderness areas. Thus, under the no-action alternative, there would be no new management zoning that would provide guidance for management of the areas.

USER CAPACITY

In this alternative, NPS and BLM managers would continue managing visitors as they have in the past, relying on approved plans. The agencies would continue to respond to user capacity issues on a case by case basis. No major new initiatives would be pursued to manage visitors or establish a user capacity approach (i.e., monitoring indicators and standards).

There would continue to be no limit on the size of groups entering the wilderness areas.

VOLUNTEER WILDERNESS STEWARDSHIP PROGRAM

Although some volunteers may occasionally assist agency managers in their work in the wilderness areas, in this alternative there would be no formal wilderness stewardship program.

COLLECTION OF NATURAL RESOURCES

In the wilderness areas managed solely by the National Park Service, collection of natural resources, including wildlife, plants, rocks, or fossils (including petrified wood), would continue to be prohibited without a valid scientific research and collecting permit.

In the portions of the three wilderness areas managed by the Bureau of Land Management, the collection of natural resources, including plants and rocks, for non-commercial purposes would continue to be allowed (see 43 CFR 6302.15). Under the no-action alternative, the collection of natural resources would continue to be permitted on all BLM lands in the Eldorado, Ireteba Peaks, and Spirit Mountain Wilderness areas.

PETS IN WILDERNESS AREAS

Under alternative A dogs and other pets would continue to be permitted in the wilderness areas. As stated in 36 *Code of Federal Regulations* 2.15, on NPS lands pets are required to be on a leash.

ALTERNATIVE B (PREFERRED ALTERNATIVE)

CONCEPT AND SUMMARY

Alternative B is the National Park Service's and Bureau of Land Management's preferred alternative for managing the eight wilderness areas. In this alternative, the emphasis would be on wilderness resource preservation while providing more opportunities for visitors to access most of the wilderness areas compared to alternative A; with particular emphasis on the Pinto Valley and Spirit Mountain Wilderness areas. The agencies would provide a variety of opportunities for appropriate wilderness activities, including provisions for both day users and overnight users, and for those who have limited wilderness skills as well as those who are experienced and self-reliant. Additional efforts would be made to inform and educate both visitors and the public about the presence of the wilderness areas and the opportunities that are available, as well as appropriate behaviors and uses in these areas. All signs, kiosks, and information would be provided close to or at the boundary of the wilderness areas. Dispersed use would continue to be encouraged, while the establishment and maintenance of official routes would concentrate use in some areas.

Entry to the wilderness areas would be improved primarily through the establishment of access points at various locations. These access points would be very basic and limited in extent, and generally consist of a small vehicle parking area, informational kiosk, and/or signs.

In this alternative, the Black Canyon Wilderness would receive additional NPS attention, because it is close to Boulder City and receives relatively high off-highway vehicle (OHV) use and other inappropriate uses, resulting in wilderness values being lost. More proactive management also will be given to the Pinto Valley, Spirit Mountain, and Bridge Canyon wilderness areas to ensure

their values are protected and unacceptable impacts do not occur.

As in all of the alternatives, NPS and BLM managers would continue to strive to protect and maintain current natural and cultural resource conditions in the wilderness areas. Natural and cultural resource management would primarily focus on restoration of disturbed areas, long-term inventory and monitoring, and mitigation where appropriate.

MANAGEMENT ZONING

Under alternative B, the potential management zones described in table 3 would be applied to the eight wilderness areas (see figures 3-6 and table 5). Most of the wilderness area would be included in zone 2. Higher use areas, or potentially popular use areas with improved access, would be included in zone 1; these areas would include Cleopatra Wash in Jimbilnan, the route to Hamblin Mountain in Pinto Valley, the northwestern side of Black Canyon closest to Boulder City, the route from Oak Creek Canyon to Lonesome Wash in Eldorado, the route from Christmas Tree Pass to the top of Spirit Mountain, and the eastern end of Grapevine Canyon in Bridge Canyon.

USER CAPACITY

As described in the management zones and in the beginning of this chapter, NPS and BLM staff would monitor visitor experience and resource indicators, evaluate current conditions against standards, and take appropriate steps to ensure the wilderness areas' user capacities are not exceeded. See table 4 for the user indicators, standards, and management and monitoring strategies that would be employed under this alternative.

Table 5: Management Zones in Alternative B (acres and percentages)

Management Zones	Jimbilnan	Pinto Valley	Black Canyon	Eldorado Canyon	Ireteba Peaks	Nellis Wash	Spirit Mtn	Bridge Canyon
Zone 1	414 (2.2%)	1,386 (3.5%)	6,031 (34.8%)	622 (1.9%)	0 (0.0%)	0 (0.0%)	191 (0.6%)	47 (0.6%)
Zone 2	18,707 (97.8%)	37,850 (96.5%)	11,302 (65.2%)	31,354 (98.1%)	32,777 (100.0%)	16,735 (100.0%)	33,695 (99.4%)	7,918 (99.4%)

Group Size Limits

To avoid impacts to opportunities for solitude and resources, all groups using the wilderness areas, including hikers, researchers, tour groups, etc., would be limited to no more than 12 people per group, including the leader of the group. Agency led hikes (including hikes led by groups that partner with the agency) also would be limited to 12 people per group; groups larger than 12 would be divided.

VOLUNTEER WILDERNESS STEWARDSHIP PROGRAM

The Bureau of Land Management and National Park Service, in cooperation with the other federal land management agencies, and with start-up support from the Southern Nevada Agency Partnership, would establish a wilderness stewardship program. This program would be intended to enhance the capacity of the two agencies and create a sense of ownership on the part of the public, as well as aid in the implementation of this plan. The wilderness stewardship program would train volunteers with an interest in wilderness management to assist the agencies in the monitoring and implementation of certain actions outlined in the wilderness management plan. Volunteer wilderness stewards would be trained to monitor cultural and natural resources and visitor use in the areas, as well as help complete resource condition assessments, minor route work, exotic plant surveys, wildlife observations, sign monitoring and sign installation.

Volunteers would be selected for specific tasks and trained to fully carry out the requested work. They would have an electronic reporting protocol to submit their findings following each of their field visits.

COLLECTION OF NATURAL RESOURCES

In the wilderness areas managed solely by the National Park Service, collection of natural resources, including wildlife, plants, rocks, or fossils (including petrified wood), would continue to be prohibited without a valid scientific research and collecting permit.

The Bureau of Land Management generally allows the collection of natural resources, including plants and rocks, for noncommercial purposes in wilderness areas (see 43 CFR 6302.15). However, on the lands managed by the Bureau of Land Management in the Spirit Mountain, Ireteba Peaks, and Eldorado Wilderness areas, different management policies would apply under this alternative.

The BLM administered lands in the Eldorado and Ireteba Peaks Wilderness areas would be closed to collection of natural resources with new regulations. This direction would ensure consistent management on both BLM and NPS lands (The NPS lands are closed to collection). Otherwise, visitors may not know where they can and cannot collect resources in the wilderness area—there are no natural

barriers to define where one can and cannot collect.

The BLM lands in the Spirit Mountain Wilderness also would be closed to collection of natural resources out of respect for the importance and cultural significance of this area to Native Americans. In addition, this area would be closed due to ensure consistent management of the BLM and NPS lands, and the potential for confusion among visitors about where they can and cannot collect natural resources.

The Bureau of Land Management would close all of these areas to natural resource collection (with the exceptions of permitted scientific collecting) through a supplementary rulemaking process in accordance with 43 *Code of Federal Regulations* 8365.1-6.

PETS IN WILDERNESS AREAS

Dogs and other pets would be prohibited in the wilderness areas due to the potential for negative impacts to wildlife and visitors. Dogs in particular may chase and bark at wildlife, pollute water sources and can become defensive and dangerous in strange surroundings. Specific to these wilderness areas, dogs intimidate and harass two important wildlife species – the desert bighorn sheep and the desert tortoise. The 2000 *Clark County Multiple Species Habitat Management Plan* directs the National Park Service to protect covered species from the impacts of domestic animals. Dogs can also negatively affect other visitor's enjoyment of the wilderness simply by encountering them in wilderness but more importantly through aggressive or defensive behavior. This prohibition includes dogs used in support of hunting. This prohibition would be included on informational signs at access points to the wilderness areas.

NEW DESIGNATED ROUTES

Several new routes would be designated in alternative B (see table 6). A total of approximately 25 miles of routes would be officially designated in the wilderness areas. Rock cairns marking routes would be maintained, but otherwise the routes would not be maintained.

Table 6: Proposed Designated Routes in Alternative B.

Route	Wilderness Area	Length (miles)
Pinto Valley (former road)	Pinto Valley	3.9
Cottonwood/Pinto Valley	Pinto Valley	5.9
Boy Scout Canyon/Hot Springs Route	Black Canyon	3.5
Ridge Route (old Approved Road 58A)	Black Canyon	0.5
Oak Creek/Lonesome Wash Route	Eldorado	6.7
White Rock Mine Route (old Approved Road 21)	Spirit Mountain	1.7
Newberry Route (old Approved Road 18)	Bridge Canyon	2.8
TOTAL		25.0

MANAGEMENT OF SPECIFIC AREAS

Jimbilnan Wilderness

No new visitor facilities would be provided in the wilderness area under alternative B. Self-discovery and self-reliance would continue to be encouraged for visitors going into this area. However, to provide visitors with information

regarding the area (as well as Pinto Valley) a kiosk and information sign would be installed outside of the wilderness area at the intersection of Northshore Road and Boathouse Cove Road (Approved Road 97). The kiosk would provide information on Cleopatra Wash, Cathedral Canyon, and Mangonese Wash.

The Boathouse Cove Road that forms the border of the wilderness area receives relatively high use. People often camp along the road, sometimes within the wilderness area. To minimize camping impacts in the wilderness area, designated camping areas just outside of the wilderness would be marked.

Pinto Valley Wilderness

Pinto Valley is one of the most accessible and popular of the eight wilderness areas. In this alternative, several actions would be taken to provide more opportunities for use of the area, while also protecting the area from resource damage. The Redstone picnic area currently can be used as an access point to the wilderness area. Two additional access points would be established off the Northshore Road. At milepost 18.2, an information sign about Pinto Valley, including directions to Hamblin Peak, would be provided at the pull off. An information sign also would be provided at milepost 25.5. A designated trail would be established along the old road to the wash, providing access into Pinto Valley. Visitors could also hike from this point through the wilderness area to milepost 18.2

Under this alternative, the existing Redstone Dune Trail would continue to be maintained. In addition, the former Pinto Valley road, from mile post 25.5 to the head of Boulder Wash, would be established as a stock/hiker route, providing horseback riders an opportunity to travel into the wilderness area. The old road from milepost 18.2 to the head of Boulder Wash would be converted into a hiking route. The footprint of the road would be made smaller to trail width, with the rest of the area restored to native vegetation.

To prevent resource damage from user-created trails, an official route up Hamblin Peak would be established with cairns, while all other unofficial routes would be removed and the landscape restored. Visitors would be directed to walk along the wash from milepost 18.2 to Cottonwood Spring, and then follow the cairned route up the peak. A loop option also could be provided.

An old mine site in the Pinto Valley area shows signs of human use. An evaluation of the mine is needed to determine if it is eligible for listing in the National Register of Historic Places. If the mine is not determined to be historically significant, the old mine site would be restored to natural conditions. If the mine is found to be eligible for listing, NPS managers would consult with the state historic preservation officer on the appropriate action to take.

Black Canyon Wilderness

Several actions would be taken under alternative B to address the inappropriate uses and resource impacts that have occurred in this area, particularly in Boy Scout Canyon. To inform and educate visitors about the wilderness status of this area, information signs would be placed on Boy Scout Canyon Road (Approved Road 59) and all other roads that provide access to the Black Canyon Wilderness. Park Service staff would work with Boulder City staff to place information signs on adjacent Boulder City lands to help reduce illegal off-highway vehicle use of the area.

To formalize and better manage access into Boy Scout Canyon, an access point, with information signs, would be established off Boy Scout Canyon Road, outside of the wilderness area, where visitors start hiking on the route to the head of the Boy Scout Canyon. Another trailhead would be established at the end of North Boy Scout Canyon (Approved Road 75D), which is an alternate route to Boy Scout Canyon via an unnamed wash. Both access points would provide information on appropriate uses of wilderness areas, including Leave No Trace

practices, to help avoid and minimize impacts at the hot springs—the primary destination of visitors.

A wilderness boundary sign would be placed at the Colorado River, along the route to the hot springs in Boy Scout Canyon, to inform river visitors that they are entering a wilderness area.

In Boy Scout Canyon, from the end of Boy Scout Canyon Road to the river, there are old signs and rock bolts for ropes that were used in the past to assist in access. The old signs would be removed to restore the wilderness character.

A sign also would be placed at the Canyon Point Road overlook, which provides a view into the wilderness area. This area also has had a trash problem in the past. It is hoped that the sign would help prevent this problem in the future.

Eldorado Wilderness

Additional access and information about the area would be provided by managers under this alternative. With improved access and more people aware of the area, more visitors could enjoy this area. Three actions would be taken in this regard:

- An access point with an information kiosk would be developed off highway 165, leading into the wilderness area. The kiosk would provide information on a designated route that follows Oak Creek Canyon and Lonesome Wash.
- Another access point with information signs would be established at the end of Yucca Camp Road (Approved Road 51).
- Finally, a wilderness boundary sign would be erected at the end of Approved Road 49 where the wilderness area begins.

Ireteba Peaks Wilderness

Ireteba Peaks is probably the most remote and isolated of the eight wilderness areas. Access into this area is challenging for both visitors and managers. The intent of alternative B is

for this area to continue providing opportunities for visitors seeking high quality solitude and primitive recreation experiences. Consequently, no actions would be taken to improve visitor access into this area.

The Tule Springs area has received relatively heavy past use and has some user-created campsites. Restoration work would be done in this area to restore the wilderness character, and tamarisk at the springs would be removed.

Nellis Wash Wilderness

Nellis Wash is an area that NPS managers do not have much data on. The area does not have prominent features or destinations that would draw people in. On the other hand, there are excellent opportunities for those seeking solitude. Consequently, under alternative B, NPS managers would continue to provide minimal management of this area, primarily focusing on restoration work, including work associated with the impacts of off-highway vehicles (OHVs), as needed. Access into the area would not be encouraged or discouraged.

Spirit Mountain Wilderness

Spirit Mountain is a popular destination that is receiving relatively high visitation and, as a result, more impacts than the other wilderness areas. The area likely will receive increasing use in the future. Consequently, more proactive management is needed in this area to ensure that wilderness values are protected, to meet the needs of both visitors and the tribes who recognize this as a sacred area.

In this alternative, car camping along Christmas Tree Road would continue to be prohibited, and dispersed overnight backcountry camping and day use would continue to be permitted in the area. Informational kiosks on the wilderness area, including information on leave no trace principles, would be established at the junction of U.S. Highway 95 and Christmas Tree Pass Road (Approved Road 20), and at the intersection of Approved Road 20 and Highway 163 in the national recreation area.

An information sign also would be placed at the intersection of Highway 163 and Nevada Telephone Cove Road (Approved Road 9). The Spirit Mountain access point at Christmas Tree Pass would continue to be maintained, and a kiosk and an interpretive panel on Spirit Mountain would also be developed at the parking area.

In alternative B, no action would be taken to encourage or discourage people from climbing up Spirit Mountain—no actions would be taken to establish a route up Spirit Mountain. Visitors would continue to follow existing user-created trails to the summit. However, an information kiosk would be located in the vicinity of Spirit Mountain, which mentions the importance of the area to the local tribes.

To improve wilderness information for visitors, signs may be installed as needed at the existing parking area at Sacatone Wash and Christmas Tree Pass Road (AR20). Another information sign may be placed on the Pipe Spring Road, where there already is a parking area, on the route to Pipe Spring. Another information kiosk would be placed in the lower Grapevine Canyon parking area off Approved Road 20. The Spirit Mountain informational kiosks at the junction of U.S. Highway 95 and Christmas Tree Pass Road (Approved Road 20), at the intersection of Approved Road 20 and Highway 163 in the national recreation area, and at the Spirit Mountain trailhead would also include information on the Bridge Canyon Wilderness.

Two roads, surrounded by the wilderness area, would be closed under alternative B. Neither of these areas receives much use and the roads are in poor condition. One of the roads also is used for illegal access into the wilderness area by off-highway vehicles. The road to White Rock Mine (Approved Road 21) would be converted to a route at the point where the road becomes impassable, or at another point where there is a turnaround. To protect a sensitive resource, smoke trees (*Dalea spinosa*), that occur only in this

wilderness area in Lake Mead National Recreation Area, the Lower Grapevine Canyon Road (Approved Road 13) would be closed and converted to a route. Both of these road closures would constitute an amendment to the national recreation area's general management plan.

Bridge Canyon Wilderness

Like Spirit Mountain, Bridge Canyon is a popular destination that likely will receive more use in the future, and potentially could see more impacts compared to the other wilderness areas. Consequently, more proactive management is needed in this area to ensure that wilderness values are protected and the needs of visitors are met.

Under alternative B, the Grapevine Canyon Trail outside the wilderness area would be improved to more clearly direct visitors into the wash and the multiple user-created trails would be restored to natural conditions.

The Approved Road 18 would be closed and converted to a hiking/horseback route at the point where the road is surrounded by the wilderness. This area receives little vehicular use, is in poor condition, and is used for illegal access into the wilderness area by off-highway vehicles. This road closure would constitute an amendment to the recreation area's general management plan.

Climbing bolts by Willow Springs would be removed. The bolts do not receive much use, are not NPS sanctioned, and are not consistent with the area's wilderness character.

STAFFING

One permanent employee from the National Park Service and one permanent employee from the Bureau of Land Management would be designated as the wilderness coordinators for the eight areas, and would supervise the wilderness stewardship program. This program would develop a volunteer base for activities associated with inventory and

CHAPTER 3: MANAGEMENT ALTERNATIVES

monitoring programs, the restoration of habitat, and sign placement, as well as other needs.

The coordinators would be specialist positions, if funding allows, or be filled as a collateral duty. The wilderness coordinators would have direct responsibility for the development, coordination, communication, implementation, and accountability for the wilderness program in the eight areas. As mandated by NPS Director's Order 41, all NPS positions having significant wilderness

responsibilities would be supported by position descriptions that detail these responsibilities. The coordinators would work with the Lake Mead National Recreation Area and BLM district staff, including resource management, protection, interpretation and education, planning, and facility management staff, to implement this plan and evaluate new proposals, provide mitigation when necessary, and make recommendations to modify the plan. The wilderness coordinators would also serve as a liaison to NPS regional and national wilderness programs.

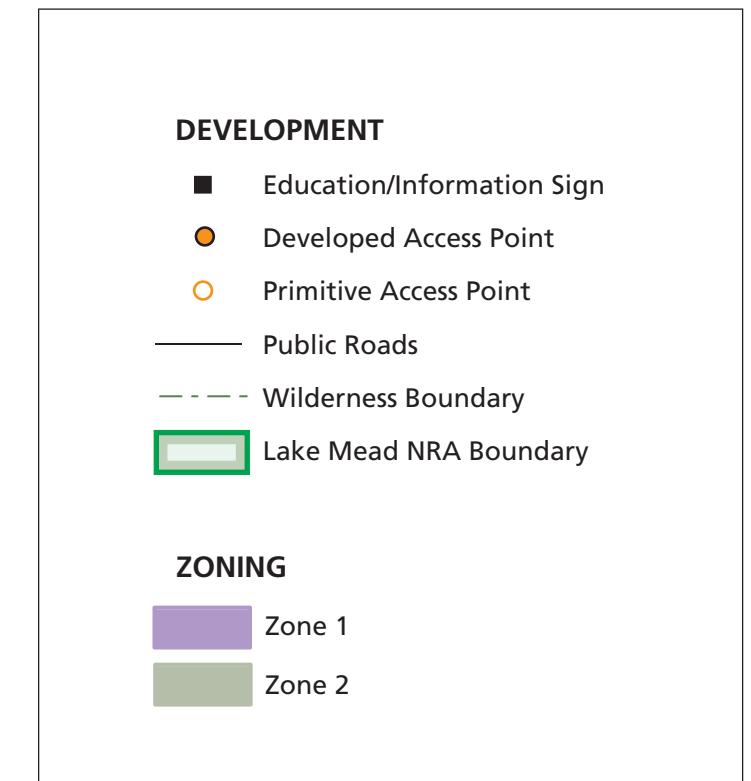
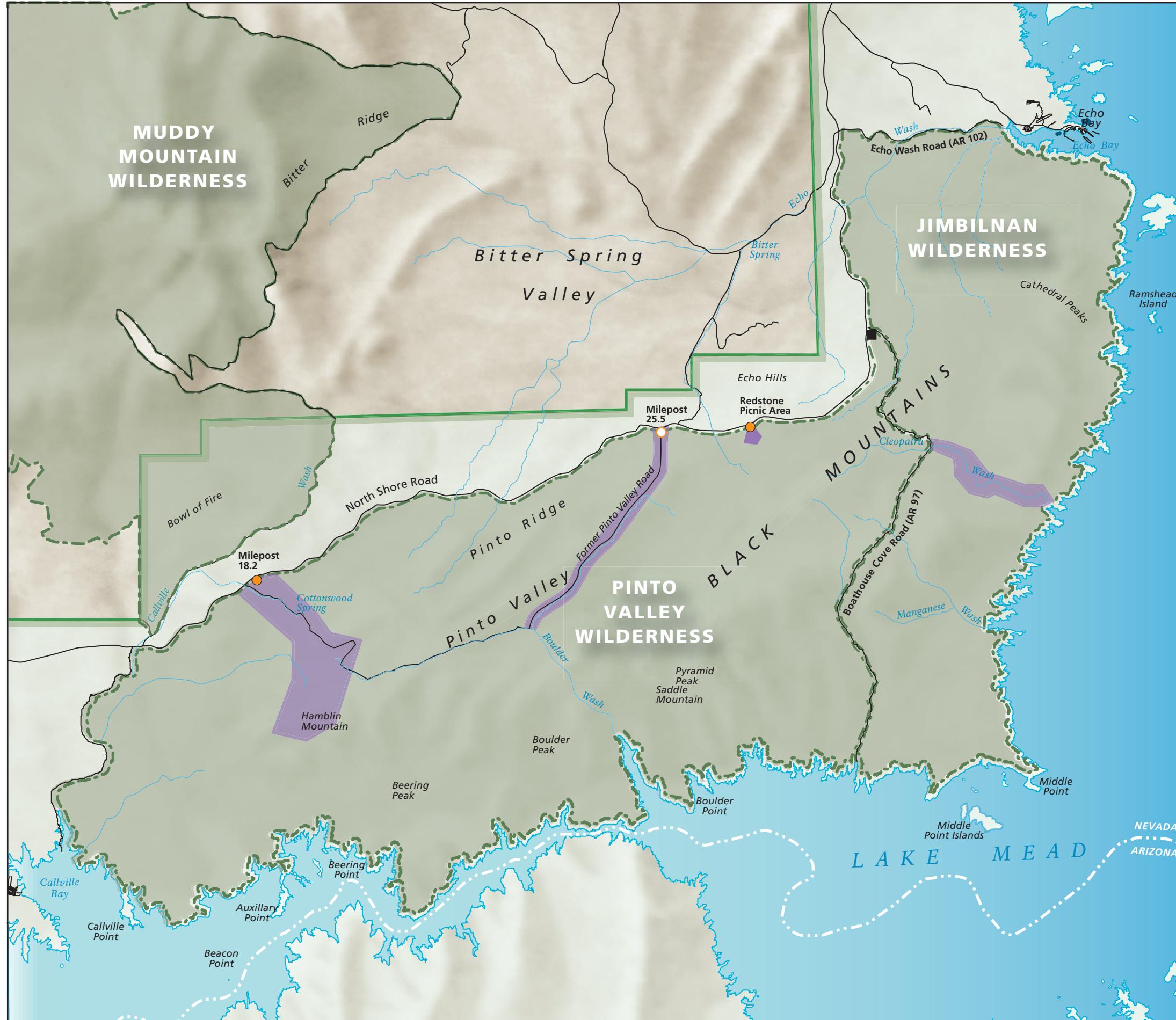


Figure 3
PINTO VALLEY AND JIMBILNAN WILDERNESS
Alternative B Preferred Alternative
WILDERNESS MANAGEMENT PLAN
Lake Mead National Recreation Area
 United States Department of the Interior
 Bureau of Land Management
 National Park Service



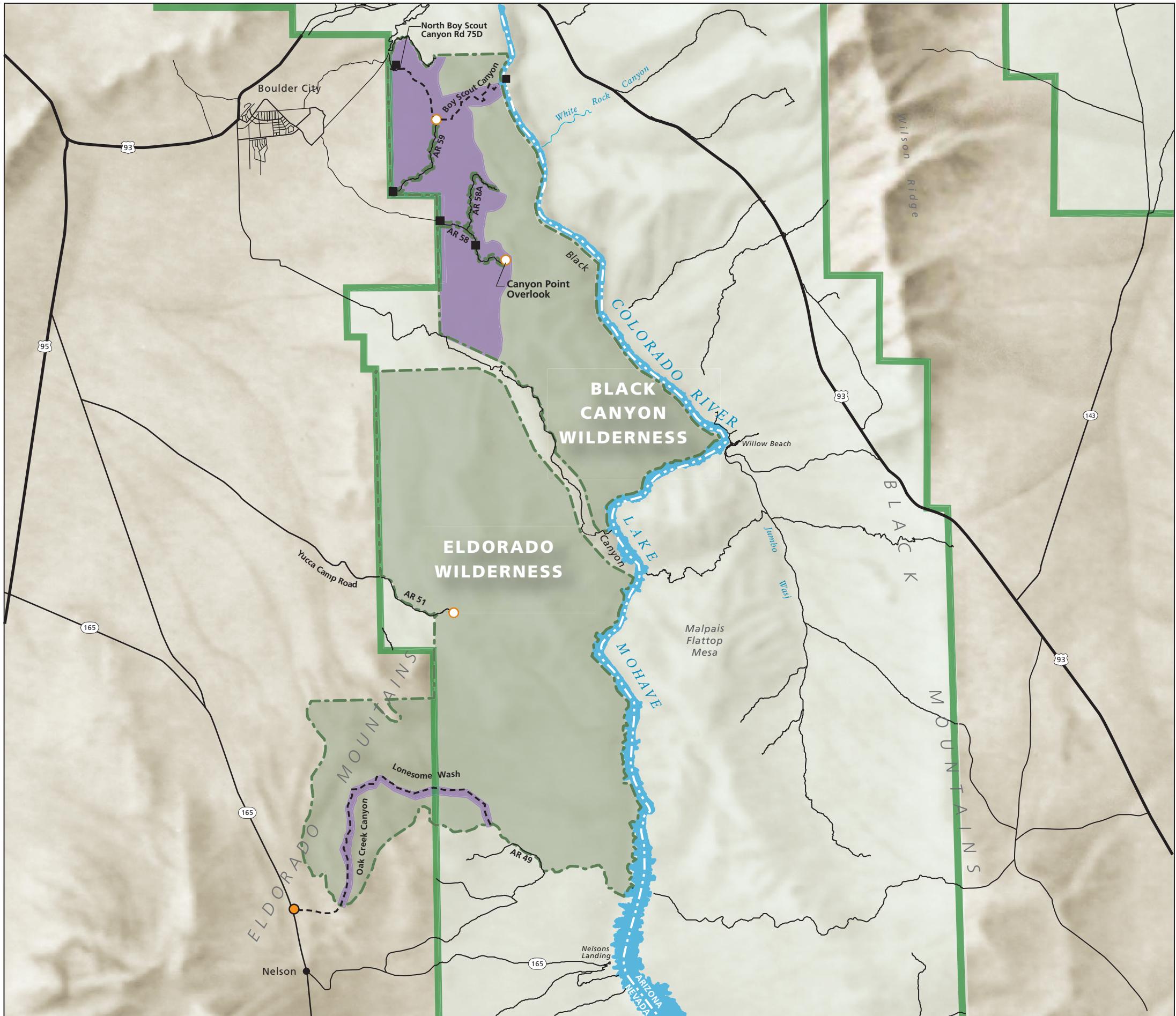


Figure 4
**BLACK CANYON
AND
ELDORADO WILDERNESS**

**Alternative B
Preferred Alternative**

WILDERNESS MANAGEMENT PLAN
Lake Mead National Recreation Area
United States Department of the Interior
Bureau of Land Management
National Park Service
DSC • 602 • 101426 • March 2010



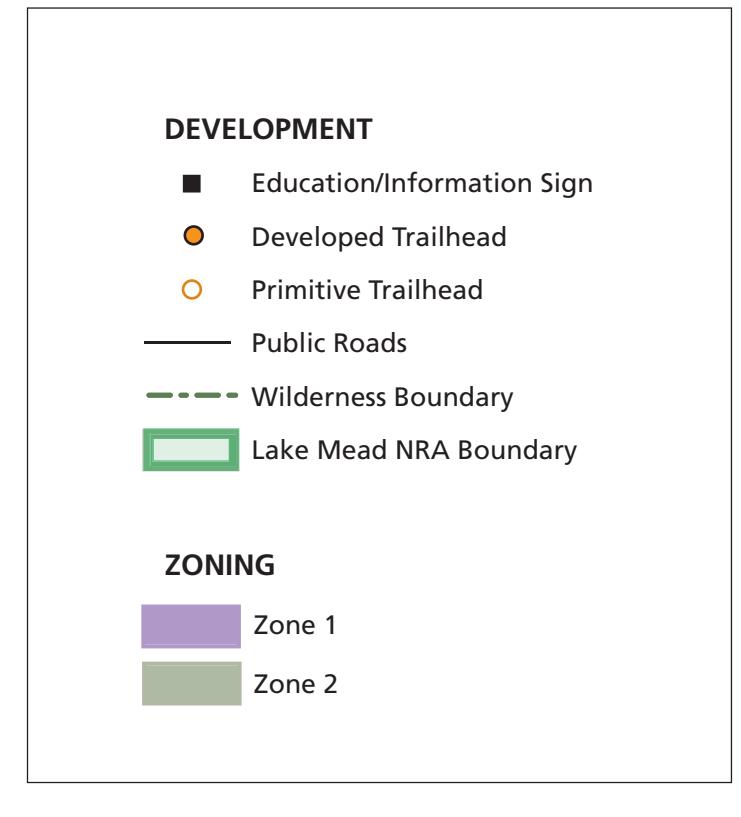
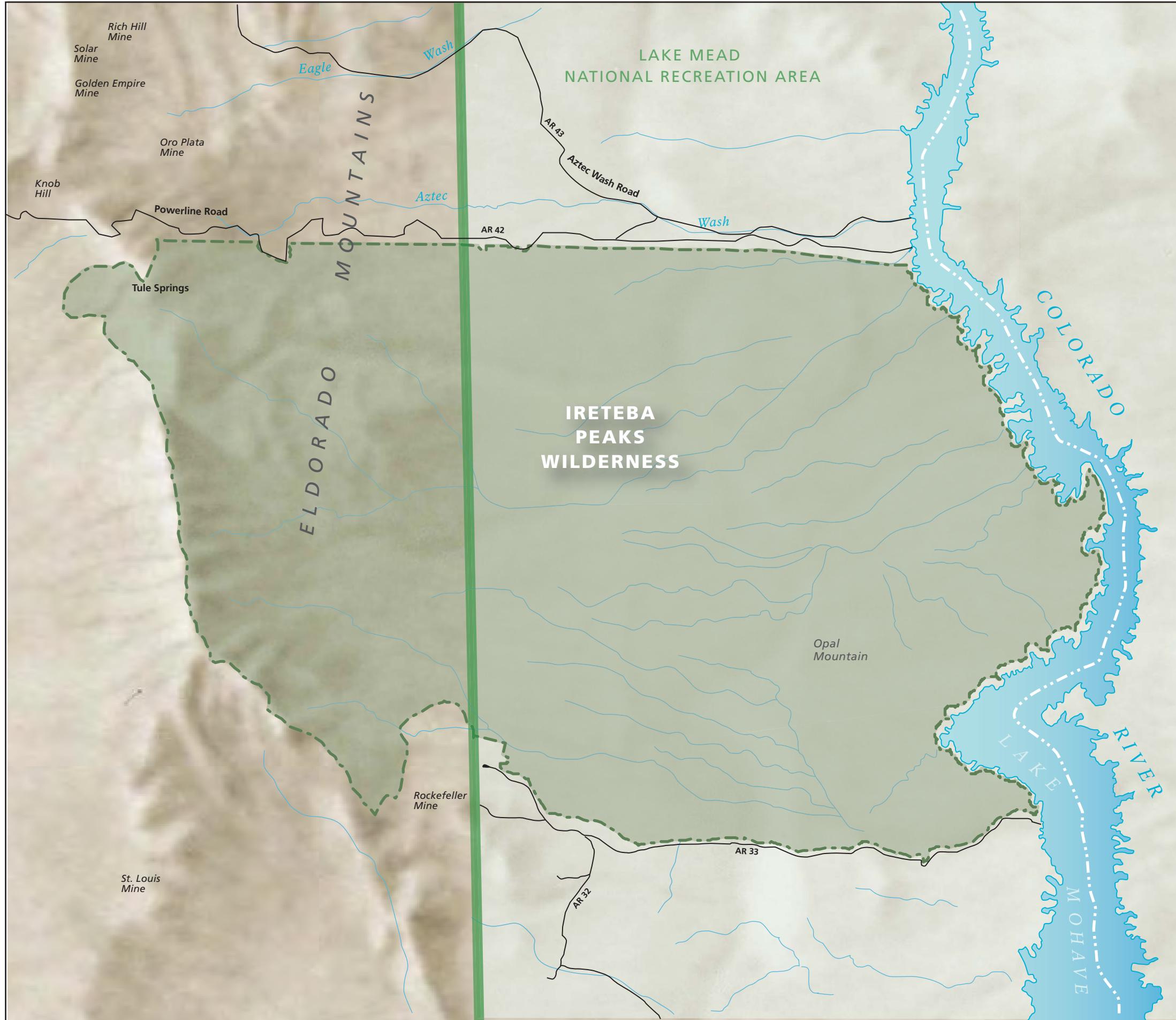


Figure 5
IRETEBA PEAKS
WILDERNESS
Alternative B
Preferred Alternative

WILDERNESS MANAGEMENT PLAN
Lake Mead National Recreation Area
United States Department of the Interior
Bureau of Land Management
National Park Service
DSC • 602 • 101427 • March 2010



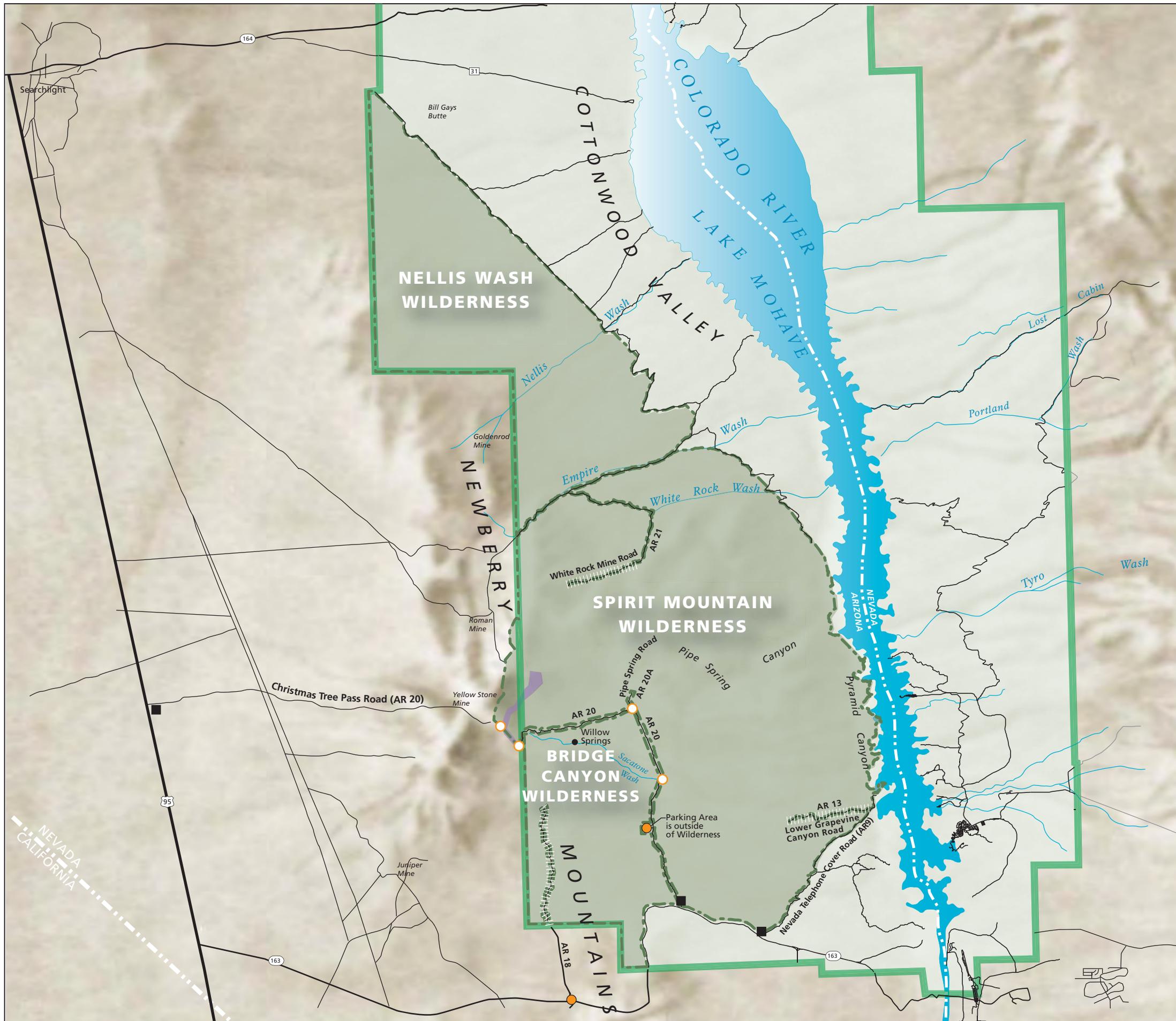


Figure 6

NELLIS WASH, SPIRIT MOUNTAIN AND BRIDGE CANYON WILDERNESS

Alternative B Preferred Alternative

WILDERNESS MANAGEMENT PLAN
Lake Mead National Recreation Area
United States Department of the Interior
Bureau of Land Management
National Park Service
DSC • 602 • 101428 • March 2010

ALTERNATIVE C

CONCEPT AND SUMMARY

In alternative C, the emphasis would be on continuing to preserve wilderness resources while providing additional opportunities for visitors to access several of the wilderness areas, particularly in the Pinto Valley and Spirit Mountain Wilderness areas. The agencies would provide for a variety of opportunities for appropriate wilderness activities, including both day use and overnight use, and for those who have limited wilderness skills as well as those who are experienced and are self-reliant. Additional efforts would be made to inform and educate both visitors and the public about the presence of the wilderness areas and opportunities that are available, as well as appropriate behaviors and uses in these areas. As in alternative B, all kiosks and information signs would be provided close to or at the boundary of the wilderness areas. Dispersed use would continue to be encouraged, while the establishment and maintenance of official routes would concentrate use in some areas.

Access to the wilderness areas would be improved primarily through the establishment of trailheads at various points. These trailheads would be limited in extent, and generally consist of a small parking area, informational kiosk, or signs. However, with a couple exceptions, no formal trails would be developed from the trailheads—the trailheads would simply be an entrance or access point in the wilderness areas.

As in alternative B, in alternative C additional NPS attention would be provided to Black Canyon, because it is close to Boulder City, receives relatively high off-highway vehicle (OHV) use, and is receiving other inappropriate uses, resulting in wilderness values being lost. As in alternative B, in

alternative C more proactive management would be given to the Pinto Valley, Spirit Mountain, and Bridge Canyon Wilderness areas to ensure their values are protected and unacceptable impacts do not occur. In alternative C, however, this protection is accomplished through intensive visitor management and a different application of the management zones.

As in all of the alternatives, NPS and BLM managers would continue to strive to protect/maintain current natural and cultural resource conditions in the wilderness areas. Natural and cultural resource management would primarily concentrate on restoration of disturbed areas, long-term inventory and monitoring, and mitigation where appropriate.

MANAGEMENT ZONING

Under alternative C, the potential management zones described in table 3 would be applied to the eight wilderness areas (see figures 7-10 and table 6). Most of the wilderness area would be included in zone 2. Higher use areas, or potentially popular use areas with improved access, would be included in zone 1. These areas would include Cleopatra Wash, Cathedral Peaks, and Manganese Wash in Jimbilnan; the route to Hamblin Mountain, Boulder Wash, and Pinto Valley in Pinto Valley; Tule Spring in Ireteba Peaks; the route from Christmas Tree Pass to the top of Spirit Mountain, the route to Pipe Spring, and the area between Sacatone Wash and Grapevine east of Approved Road 20 in the Spirit Mountain Wilderness; and the eastern end of Grapevine Canyon in Bridge Canyon.

Table 7: Management Zones in Alternative C (acres and percentages)

Management Zones	Jimbilnan	Pinto Valley	Black Canyon	Eldorado Canyon	Ireteba Peaks	Nellis Wash	Spirit Mtn	Bridge Canyon
Zone 1	2,748 (14.4%)	6,218 (15.8%)	0 (0.0%)	0 (0.0%)	231 (0.7%)	0 (0.0%)	2,599 (7.7%)	47 (0.6%)
Zone 2	16,373 (85.6%)	33,018 (84.2%)	17,333 (100.0%)	31,976 (100.0%)	32,546 (99.3%)	16,735 (100.0%)	31,287 (92.3%)	7,918 (99.4%)

USER CAPACITY

As described in the management zones and in the beginning of this chapter, NPS and BLM staff would monitor visitor experience and resource indicators, evaluate current conditions against standards, and take appropriate steps to ensure the wilderness areas' user capacities are not exceeded. See table 4 for the use indicators, standards, and the management and monitoring strategies that would be followed under this alternative.

Group Size Limits

To avoid impacts to opportunities for solitude and resources, all groups using the wilderness areas, including hikers, researchers, tour groups, etc., would be limited to no more than 12 people per group, including the leader of the group. Agency led hikes (including hike lead by groups that partner with the agency) also would be limited to 12 people per group; groups larger than 12 would be divided.

VOLUNTEER WILDERNESS STEWARDSHIP PROGRAM

The Bureau of Land Management and the National Park Service, in cooperation with the other federal land management agencies, and with start-up support from the Southern Nevada Agency Partnership, would establish a wilderness stewardship program. This program would be intended to enhance the capacity of the two agencies and create a sense of ownership on the part of the public, as well

as aid in the implementation of this plan. The wilderness stewardship program, would train volunteers with an interest in wilderness management to assist the agencies in the monitoring and implementation of certain actions outlined in the wilderness management plan. Volunteer wilderness stewards would be trained to monitor cultural and natural resources and visitor use in the areas, as well as help complete resource condition assessments, minor route work, exotic plant surveys, wildlife observations, sign monitoring and sign installation.

Volunteers would be selected for specific tasks and trained to fully carry out the requested work. They would have an electronic reporting protocol to submit their findings following each of their field visits.

COLLECTION OF NATURAL RESOURCES

In the wilderness areas managed solely by the National Park Service, collection of natural resources, including wildlife, plants, rocks, or fossils (including petrified wood), would continue to be prohibited without a valid scientific research and collecting permit.

The Bureau of Land Management generally allows the collection of natural resources, including plants and rocks, for noncommercial purposes in wilderness areas they manage (see 43 CFR 6302.15). However, on the lands managed by the Bureau of Land Management in the Spirit Mountain, Ireteba

Peaks, and Eldorado Wilderness Areas different management policies would apply under this alternative.

The BLM lands in the Eldorado and Ireteba Peaks Wilderness areas would be closed to collection of natural resources. This direction would ensure consistent management on both BLM and NPS lands (the NPS lands are closed to collection). Otherwise, visitors may not know where they can and cannot collect resources in the wilderness area—there are no natural barriers to define where one can and cannot collect.

The BLM administered lands in the Spirit Mountain Wilderness also would be closed to collection of natural resources out of respect for the importance and cultural significance of this area to Native Americans. In addition, this area would be closed due to ensure consistent management of the BLM and NPS lands, and the potential for confusion among visitors about where they can and cannot collect natural resources.

The Bureau of Land Management would close all of the areas to collection of natural resources (with the exceptions of permitted scientific collecting) through a supplementary rulemaking process in accordance with 43 *Code of Federal Regulations 8365.1-6.*

PETS IN WILDERNESS AREAS

Dogs and other pets would be prohibited in the wilderness areas due to the potential for negative impacts to wildlife and visitors. Dogs in particular may chase and bark at wildlife, pollute water sources and can become defensive and dangerous in strange surroundings. Specific to these wilderness areas, dogs intimidate and harass two important wildlife species—the desert bighorn sheep and the desert tortoise. The 2000 *Clark County Multiple Species Habitat Management Plan* directs the National Park Service to protect covered species from the impacts of domestic animals. Dogs can also negatively affect other visitor's enjoyment of the

wilderness simply by encountering them in wilderness but more importantly through aggressive or defensive behavior. This prohibition includes dogs used in support of hunting. This prohibition would be included on informational signs at access points to the wilderness areas.

NEW DESIGNATED ROUTES

Several new routes would be designated established in alternative C (see table 8). A total of approximately 44 miles of routes would be officially designated in the wilderness areas. Rock cairns marking routes would be maintained, but otherwise the routes would not be maintained.

Table 8: Proposed Designated Routes in Alternative C

Route	Wilderness Area	Length (miles)
Pinto Valley (former road)	Pinto Valley	3.9
Cottonwood/Pinto Valley	Pinto Valley	5.9
Boulder Wash Route	Pinto Valley	2.2
Hamblin Mountain Route	Pinto Valley	1.4
Cleopatra Wash Route	Jimbilnan	2.3
Manganese Wash North Route	Jimbilnan	1.6
Manganese Wash Route	Jimbilnan	2.5
Boy Scout Canyon/Hot Springs Route	Black Canyon	3.5
Ridge Route (old Approved Road 58A)	Black Canyon	0.5

Route	Wilderness Area	Length (miles)
Oak Creek/Lonesome Wash Route	Eldorado	6.7
Tule Spring Route	Ireteba	0.4
Pipe Spring Route	Spirit Mountain	1.3
Spirit Mountain Route	Spirit Mountain	1.6
Lower Grapevine Route	Spirit Mountain	3.5
White Rock Mine Route (old Approved Road 21)	Spirit Mountain	1.7
Sacatone Wash Route	Bridge Canyon	2.0
Bridge Spring Route	Bridge Canyon	0.6
Newberry Route (old Approved Road 18)	Bridge Canyon	2.8
TOTAL		44.4

kiosk and information sign would be installed outside of the wilderness area at the intersection of Northshore Road and Boathouse Cove Road (Road 97).

As in alternative B, in this alternative, designated camping areas just outside of the wilderness along the Boathouse Cove Road would be marked to minimize camping impacts within the wilderness area.

Pinto Valley Wilderness

Under this alternative, several actions would be taken to provide more opportunities for use of the area, while also protecting the area from resource damage. The Redstone picnic area currently can be used as an access point to the wilderness area. Under alternative C, an informational kiosk would be placed in this area. As in alternative B, two additional access points would be established off the Northshore Road. At milepost 18.2, a sign and information on Pinto Valley—including directions to Hamblin Peak—would be provided at the pull off. A sign and information on the wilderness area, including the Boulder Wash route, also would be provided at milepost 25.5. A designated route would be established along the old road to the wash, providing access into Pinto Valley. Visitors could also hike from this point along a designated route through the wilderness area to milepost 18.2.

MANAGEMENT OF SPECIFIC AREAS

Jimbilnan Wilderness

No new visitor facilities would be provided in the wilderness area under alternative C. However, several designated routes would be established and maintained, including routes along Cleopatra Wash, Cathedral Cove/Canyon, and Manganese Wash (via an old road). A new trailhead, including a parking area and informational kiosk, also would be established at Echo Wash (Approved Road 102) to prove access into the northern end of the wilderness area.

To provide visitors with information regarding the area (as well as Pinto Valley) a

Under this alternative, the existing Redstone Dune Trail would continue to be maintained. In addition, after appropriate compliance, the former Pinto Valley road would be partially restored, and maintained as a route. A portion would be a stock/hiker route, providing horseback riders an opportunity to travel into the wilderness area.

Also in alternative C, in addition to the above areas, information on the wilderness area would be provided at the pullouts along the Northshore Road. At milepost 18.2, information would be provided on both the Pinto Valley Wilderness and the Bowl of Fire, part of the Muddy Mountain Wilderness.

To prevent resource damage from user-created trails, an official route up Hamblin Peak would be established with cairns and would be maintained, while all other unofficial routes would be removed and the landscape restored. If appropriate, the route could be a designated trail. Visitors would be directed to walk along the wash from milepost 18.2 to Cottonwood Spring, and then follow the cairned route up the peak. A loop option also could be provided.

An old mine site in the Pinto Valley area shows signs of human use. An evaluation of the mine is needed to determine if it is eligible for listing in the National Register of Historic Places. If the mine were not determined to be historically significant, the old mine site would be restored to natural conditions. If the mine were found to be eligible for listing, NPS managers would consult with the state historic preservation officer on appropriate action to take.

Black Canyon Wilderness

Many of the same actions described in alternative B would also occur in alternative C to address the inappropriate uses and resource impacts that have occurred in this area, particularly in Boy Scout Canyon. To inform and educate visitors about the wilderness status of this area, information signs would be placed on Boy Scout Canyon Road (Approved Road 59) and all other roads that provide access to the Black Canyon Wilderness. Information signs also would be placed on adjacent Boulder City lands to help reduce illegal off-highway vehicle use of the area.

To formalize and better manage access into Boy Scout Canyon, an access point and information signs would be established off Approved Road 59, outside of the wilderness area, where visitors start hiking on the route to the head of the Boy Scout Canyon. Another access point would be established at the end of North Boy Scout Canyon Road (Approved Road 75D), which is an alternate route to Boy Scout Canyon via an unnamed wash. Designated routes would begin at these access

points. Both access points would provide information on appropriate uses of wilderness areas, including Leave No Trace practices, to help avoid and minimize impacts at the hot springs—the primary destination of visitors.

A wilderness boundary sign would be placed off of the Colorado River, along the route to the hot springs in Boy Scout Canyon, to inform river visitors that they are entering a wilderness area.

The old signs in Boy Scout Canyon, from the end of Approved Road 59 to the river, would be removed to restore the wilderness character. Existing ropes also would be removed.

An educational kiosk would be placed at the Canyon Point Road overlook, which provides a view into the wilderness area. This area also has had a trash problem in the past. It is hoped that the kiosk would help prevent this problem in the future.

Eldorado Wilderness

Compared to alternative A, alternative C would provide additional access and information about the area. With improved access and more people aware of the area, more visitors could enjoy this area. Four actions would be taken to provide this additional access and information:

- An access point with an information kiosk would be developed off highway 165, just north of Nelson, to provide access to the wilderness area. The kiosk would provide information on a route that follows Oak Creek Canyon and Lonesome Wash.
- Another access point with information signs would be established at the end of Yucca Camp Road (Approved Road 51).
- A third access point, with an information kiosk, would be established off highway 165, just north of Nelson, to provide access to Bridge Spring.
- Finally, an informational sign would be erected at the end of Approved Road 49 where the wilderness area begins.

Ireteba Peaks Wilderness

In this alternative, a trailhead would be established on the powerline road, at the edge of the wilderness area, and a maintained trail would go to Tule Spring—a primary attraction of this area. As in alternative B, restoration work would be done in the Tule Spring area to restore the wilderness character and tamarisk at the springs would be removed.

Nellis Wash Wilderness

Relatively few people are aware of this wilderness area, which has many opportunities for those seeking solitude and primitive recreation opportunities. Because little is known about this area, NPS managers would be cautious in encouraging changes in the use of the area. However, in alternative C, an access point and information signs would be placed off Approved Road 22 to provide visitors with an opportunity to learn about the area.

Spirit Mountain Wilderness

Under alternative C, additional opportunities would be available at Spirit Mountain compared to the previous alternatives. However, as in alternative B, more proactive management would be provided to ensure that wilderness values are protected to meet the needs of both visitors and tribes in this area.

To reduce the potential for impacts, only day use would be permitted on both the NPS and BLM lands that make up the wilderness area. Kiosks with informational on the wilderness area and Leave No Trace principles would be established at the junction of U.S. Highway 95 and Christmas Tree Pass Road (Approved Road 20) and at the intersection of Approved Road 20 and Highway 163. An informational sign would be placed at the intersection of Highway 163 and Nevada Telephone Cove Road (Approved Road 9). The Spirit Mountain access point at Christmas Tree Pass would continue to be maintained, and a kiosk and interpretive panel on Spirit Mountain would also be developed at the parking area.

To improve wilderness information for visitors, signs would be installed at the existing parking area at Sacatone Wash and Christmas Tree Pass Road. Another information sign would be placed on the Pipe Spring Road, where there already is a parking area.

Designated routes would be established in Sacatone Wash, lower Grapevine Canyon, and to Pipe Spring to improve access into these areas.

Also in this alternative, two official routes to the summit of Spirit Mountain would be established and maintained. One route would start from the trailhead on Christmas Tree Pass Road. The other route would go up the southeast side of Spirit Mountain from the Pipe Spring access road. Other existing user-created trails to the summit would be removed and the landscape restored.

One road, surrounded by the wilderness area, would be closed under alternative C. The road to White Rock Mine does not receive much use and the road is in poor condition. The road also is used for illegal access into the wilderness area by off-highway vehicles. The road to White Rock Mine would be converted to a route at the point where the road becomes impassable, or at another point where there is a turnaround. This road closure would constitute an amendment to the national recreation area's general management plan.

In alternative C, the Lower Grapevine Canyon Road (Approved Road 13) would continue to be open to vehicular use.

The summit register on Spirit Mountain provides valuable information on use of the area would be retained.

Bridge Canyon Wilderness

As in alternative B, in alternative C more proactive management would be provided in the Bridge Canyon Wilderness to ensure that wilderness values are protected and visitor needs are met.

As in alternative B, the Grapevine Canyon Trail outside of the wilderness area would be improved to more clearly direct visitors into the wash, and the multiple user-created trails would be restored to natural conditions.

The same information signs and kiosks noted in alternative B would be installed in alternative C. Information signs would be installed at the existing parking areas at Sacatone Wash and at the upper Grapevine Canyon on Christmas Tree Pass Road (Approved Road 20). A new access point (parking area and kiosk) would be established at the junction of Highway 163 and Approved Road 18. Another informational kiosk would be placed in the lower Grapevine Canyon parking area off Approved Road 20. The Spirit Mountain informational kiosks noted above at the junction of U.S. Highway 95 and Christmas Tree Pass Road (Approved Road 20), at the intersection of Approved Road 20 and Highway 163 in the national recreation area, and at the access point to Spirit Mountain on Christmas Tree Pass would include information on the Bridge Canyon Wilderness, as well.

In this alternative, an official route would be designated and maintained from the upper Grapevine Canyon trailhead.

The Approved Road 18 would be closed and converted to a hiking/horseback route at the point where the road enters the national recreation area. This area receives little vehicular use, is in poor condition, and is used for illegal access to the wilderness area by off-highway vehicles. This road closure would constitute an amendment to the national recreation area's general management plan.

Climbing bolts by Willow Springs would be removed. The bolts do not receive much use, are not NPS sanctioned, and are not consistent with the area's wilderness character.

STAFFING

One permanent NPS employee and one permanent BLM employee would be designated as the wilderness coordinators for the eight areas, and would supervise the wilderness stewardship program. This program would develop a volunteer base for activities associated with inventory and monitoring programs, the restoration of habitat, and sign placement, as well as other needs.

The coordinators would be specialist positions, if funding allows, or be filled as a collateral duty. The wilderness coordinators would have direct responsibility for the development, coordination, communication, implementation, and accountability for the wilderness program in the eight areas. As mandated by NPS Director's Order 41, all NPS positions having significant wilderness responsibilities would be supported by position descriptions that detail these responsibilities. The coordinators would work with the Lake Mead National Recreation Area and BLM district staff, including resource management, protection, interpretation and education, planning, and facility management staff, to implement this plan and evaluate new proposals, provide mitigation when necessary, and make recommendations to modify the plan. The wilderness coordinators would also serve as a liaison to NPS regional and national wilderness programs.

