

Figure 7

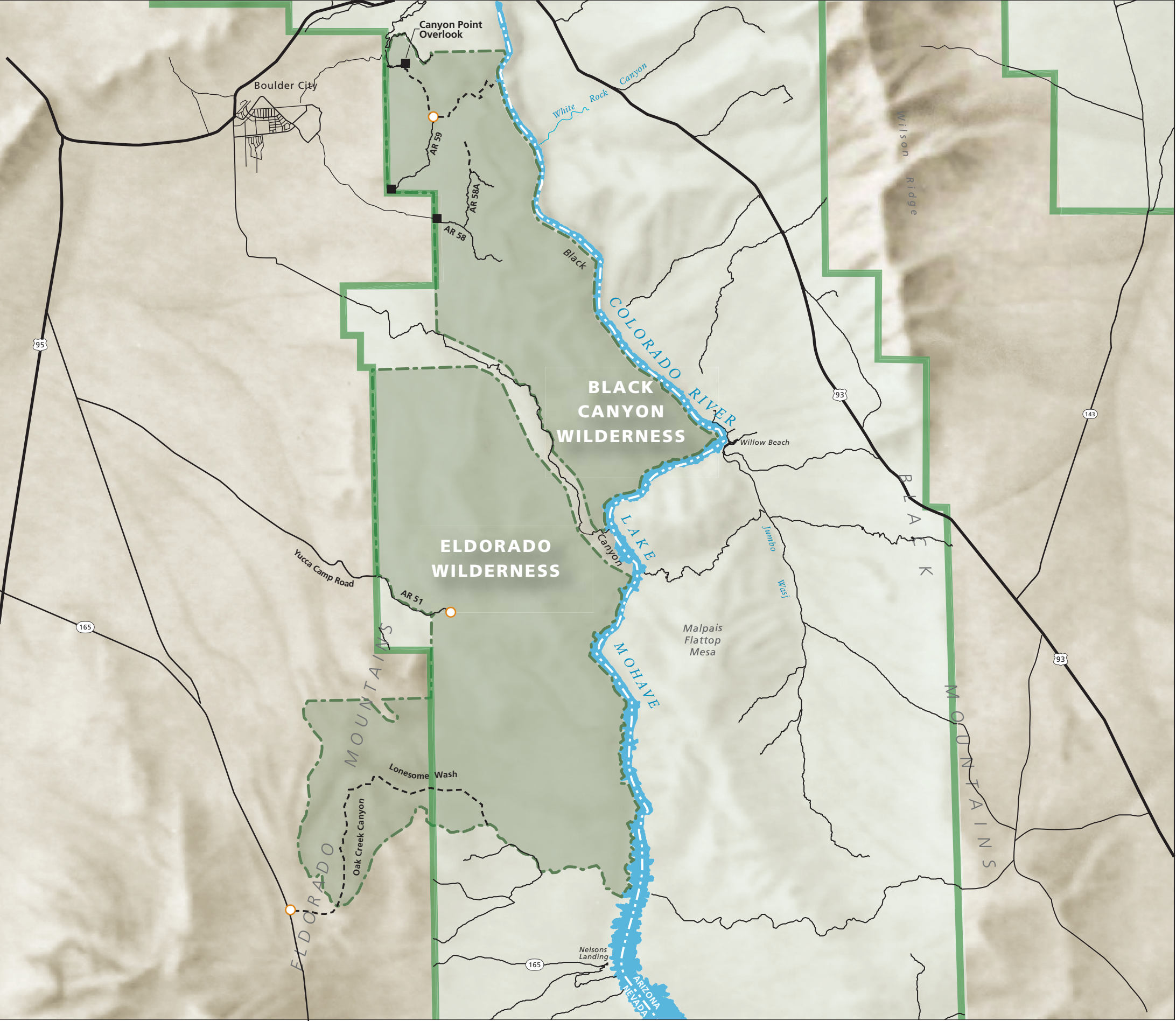
## PINTO VALLEY AND JIMBILNAN WILDERNESS

### Alternative C

**WILDERNESS MANAGEMENT PLAN**  
Lake Mead National Recreation Area  
United States Department of the Interior  
Bureau of Land Management  
National Park Service  
DSC • 602 • 101429 • March 2010







**DEVELOPMENT**

- Education/Information Sign
- Developed Trailhead
- Primitive Trailhead
- Designated Routes
- Public Roads
- Wilderness Boundary
- Lake Mead NRA Boundary

**ZONING**

- Zone 1
- Zone 2

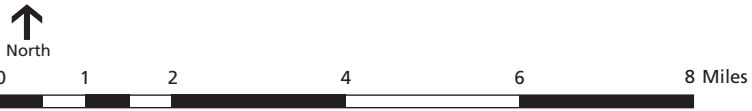




Figure 8

**BLACK CANYON AND ELDORADO WILDERNESS**

**Alternative C**

**WILDERNESS MANAGEMENT PLAN**  
Lake Mead National Recreation Area

United States Department of the Interior  
Bureau of Land Management  
National Park Service  
DSC • 602 • 101430 • March 2010





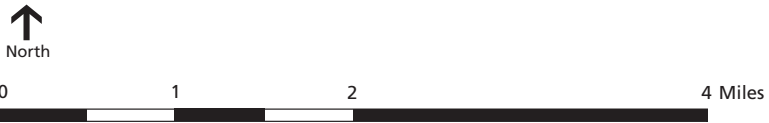
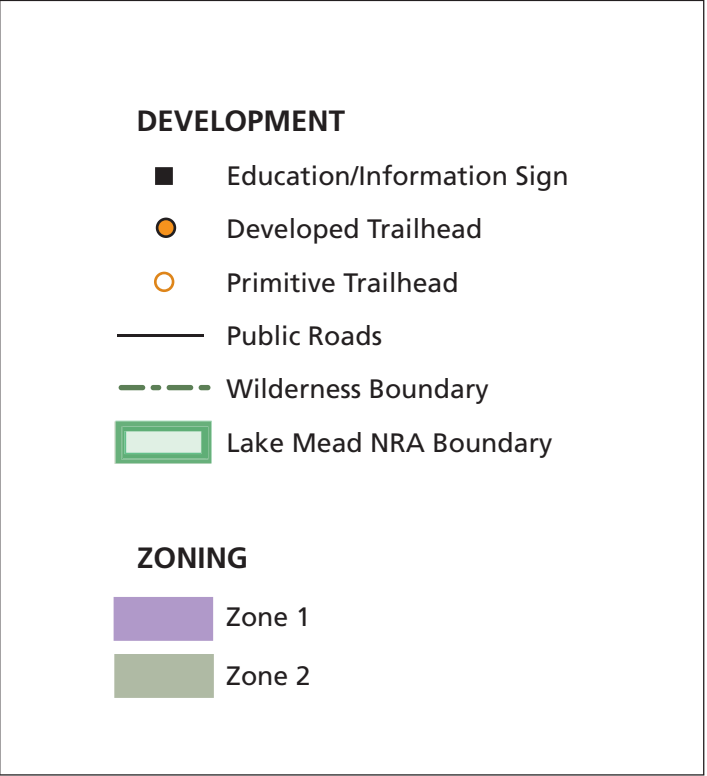
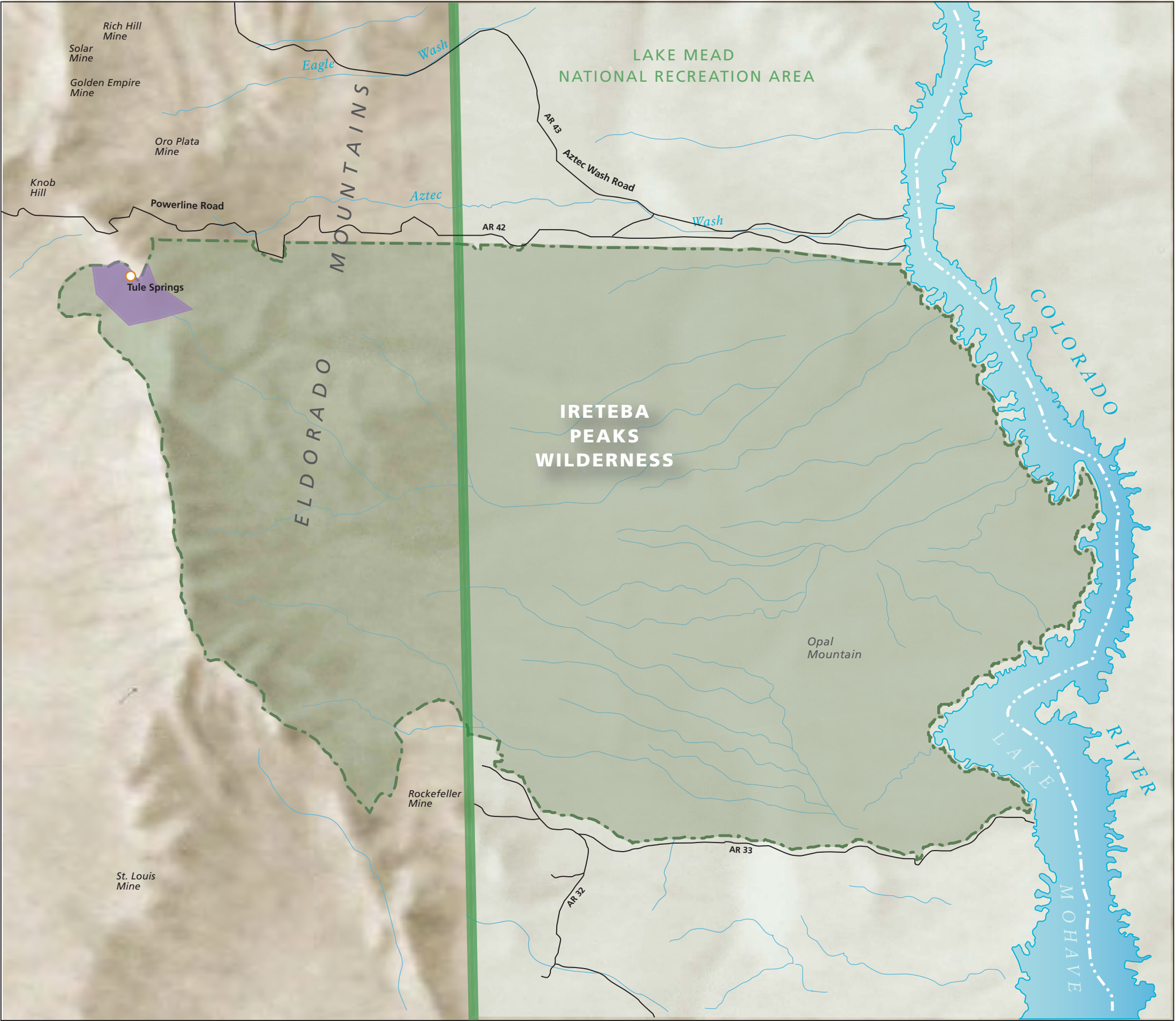


Figure 9

**IRETEBA PEAKS WILDERNESS**

**Alternative C**

**WILDERNESS MANAGEMENT PLAN**  
 Lake Mead National Recreation Area  
 United States Department of the Interior  
 Bureau of Land Management  
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 DSC • 602 • 101431 • March 2010





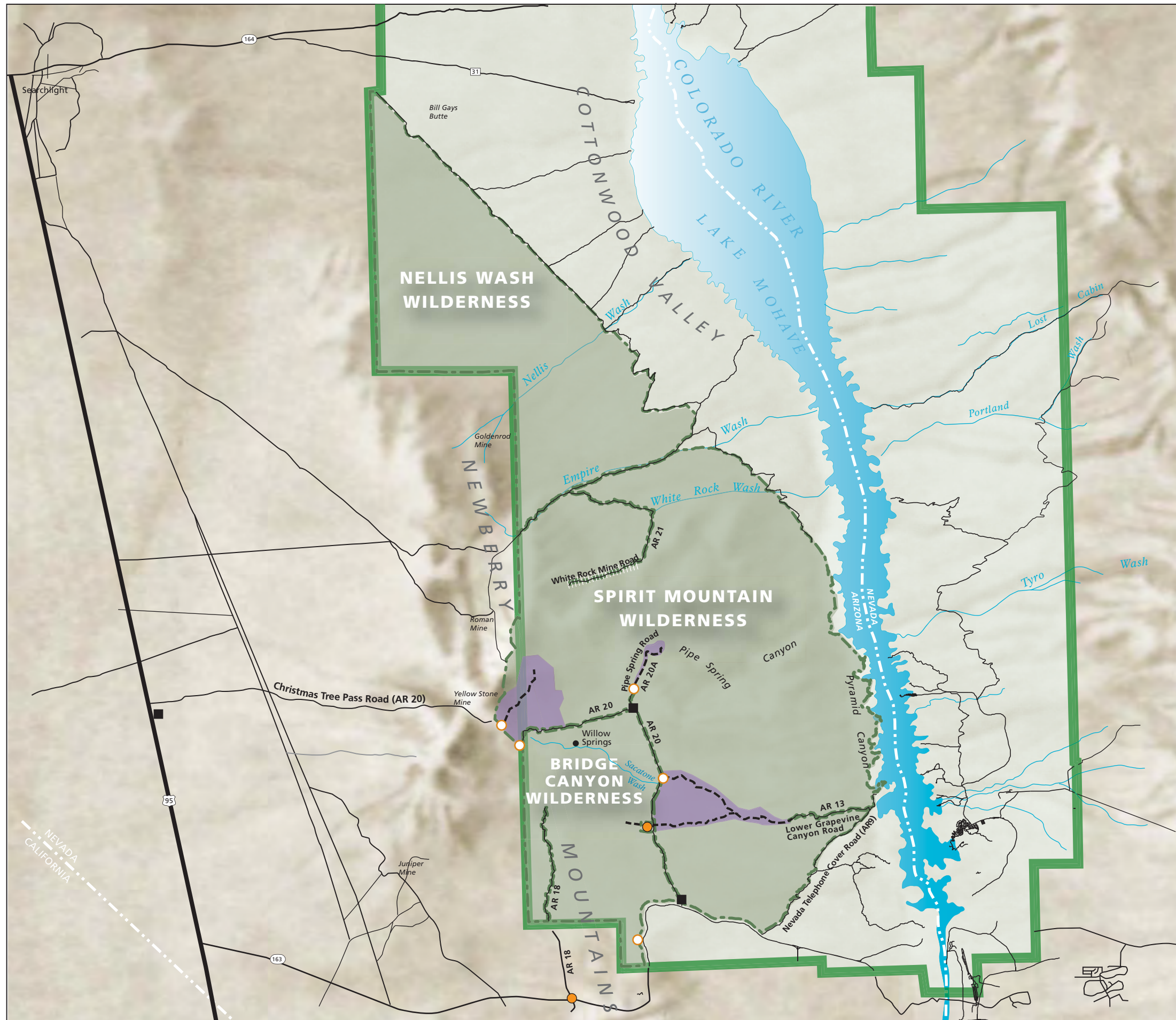


Figure 10

# **NELLIS WASH, SPIRIT MOUNTAIN AND BRIDGE CANYON WILDERNESS**

## **Alternative C**

**WILDERNESS MANAGEMENT PLAN**  
**Lake Mead National Recreation Area**  
 United States Department of the Interior  
 Bureau of Land Management  
 National Park Service  
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## MITIGATION MEASURES

Mitigation measures are the practicable and appropriate methods that would be used under the action alternatives to avoid or minimize harm to wilderness character, natural and cultural resources, visitors, and the visitor experience. The mitigation measures have been developed by using existing laws and regulations, best management practices, conservation measures, and other known techniques.

Note: Many of the mitigation measures below relate to construction of facilities, all of which would occur outside the wilderness areas.

### NATURAL RESOURCES

#### General

Previously disturbed areas would be utilized whenever possible and new disturbance would be confined to carefully selected sites with as small a construction footprint as possible.

Natural and cultural resource staff would identify sensitive areas during design and planning stages and would be onsite during periods of construction, if necessary, to ensure that all mitigation and conservation measures are followed.

Best management practices would be implemented to reduce impacts to air and water quality and natural soundscapes.

#### Soils

Erosion control measures would be incorporated into development projects. Areas of disturbance would be rehabilitated through raking and, as appropriate, replacement of topsoil and revegetation.

#### Vegetation

Best management practices would be used to avoid the introduction of nonnative plant species. This would include prohibiting the use of imported fill, soil, or hay bales; ensuring all equipment is clean and free of foreign soil or seeds; minimizing new ground disturbance and initiating restoration of disturbed sites immediately; and monitoring disturbed areas for growth of nonnative species.

#### Wildlife

Visitor impacts on wildlife would be addressed through such techniques as visitor education programs, restrictions on visitor activities, and ranger patrols.

During any construction of facilities to support wilderness management, noise abatement measures would be implemented. These measures could include the following: a schedule to minimize impacts in noise-sensitive areas, use of the best available noise control techniques wherever feasible, use of hydraulically or electrically powered impact tools when feasible, and the location of stationary noise sources as far from sensitive uses as possible.

#### Threatened, Endangered, and Rare Species

Surveys would be conducted for special status species, including rare, threatened, and endangered species, before taking any action that might cause harm. In consultation with the U.S. Fish and Wildlife Service and the Nevada Department of Wildlife, appropriate measures would be taken to protect any sensitive species, whether identified through surveys or presumed to occur.

Prior to any surface disturbing activities associated with the implementation of this wilderness management plan, the following conservation measures would be implemented

to ensure that the federally threatened desert tortoise (*Gopherus agassizii*) and its habitat are protected:

- Project areas would be surveyed for tortoises within 24 hours of the start of ground disturbance. If a tortoise is present, it would be allowed to move out of harm's way of its own volition.
- All project personnel would receive desert tortoise education, which would include information on the species' life history and legal status as well as all stipulations associated with project implementation.
- Litter control would be strictly enforced.
- No pets would be allowed in the wilderness areas.
- Speed limits would be strictly enforced.
- Sites where vegetation is disturbed would be rehabilitated as soon as possible to restore habitat.

## CULTURAL RESOURCES

As appropriate, archeological surveys and/or monitoring would precede any ground disturbance. National register-eligible or national register-listed archeological resources would be avoided to the greatest extent possible. If such resources could not be avoided, an appropriate mitigation strategy would be developed in consultation with the state historic preservation officer and

associated Indian tribes. If during construction previously unknown archeological resources were discovered, all work in the immediate vicinity of the discovery would be halted until the resources could be identified and documented; if the resources cannot be preserved *in situ*, an appropriate mitigation strategy would be developed in consultation with the state historic preservation officer and associated Indian tribes.

Sensitive traditional use areas would be protected to the extent feasible by avoiding or mitigating impacts on ethnographic resources and continuing to provide access to traditional use and spiritual areas.

Visitors would be educated on the importance of protecting the wilderness areas' cultural resources and leaving these undisturbed for the enjoyment of future visitors.

## VISITOR USE AND EXPERIENCES

Visitor safety concerns would be integrated into interpretive and educational programs.

Guidance consistent with leave no trace principles would be developed to educate visitors on minimizing impacts to wilderness areas.

## ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferable alternative is defined as “the alternative that will promote national environmental policy as expressed in Section 101 of the National Environmental Policy Act” Section 101 states that it is the continuing responsibility of the federal government to . . .

1. fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
2. assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
3. attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
4. preserve important historic, cultural, and natural aspects of our national heritage; and maintain, wherever possible, an environment which supports diversity, and a variety of individual choices;
5. achieve a balance between population and resource use which would permit high standards of living and a wide sharing of life’s amenities; and
6. enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

The environmentally preferable alternative is alternative B. This alternative best satisfies the national environmental goals—it provides the highest level of protection of wilderness resources while concurrently improving access opportunities to the areas and providing for an appropriate range of neutral

and beneficial uses of the environment. The preferred alternative maintains an environment that supports a diversity and variety of individual choices, and it integrates resource protection with an appropriate range of visitor uses and understanding.

The preferred alternative (alternative B) surpasses the other alternatives in realizing the full range of the Section 101 national environmental policy goals. The no-action alternative does not provide as much resource protection as the preferred alternative. The no-action alternative does not balance population and resource use because, unlike alternative B, there would be no user capacity framework to proactively manage impacts from future visitor use. In addition, the preferred alternative would provide more opportunities for public enjoyment and understanding of the wilderness areas than the no-action alternative, and thus better fulfills criteria 3, 4, and 5.

Alternative C would provide for more visitor use opportunities and increased information to visitors, compared to alternative B, but there also would be a higher potential for more impacts to wilderness resources and values in comparison with the preferred alternative. In addition, current and expected use levels for the eight wilderness areas do not justify the higher level of management that would occur under alternative C. Thus, alternative C would not satisfy criterion 3 (attain the widest range of beneficial uses of the environment without degradation or other undesirable consequences) and criterion 4 (preserve important aspects of our national heritage) as well as the preferred alternative satisfies these criteria.

## SUMMARY TABLES

Table 9: Summary of the Wilderness Alternatives

	Alternative A (No Action)	Alternative B (Preferred Alternative)	Alternative C
<b>Overall Concept</b>	<p>The NPS and the BLM would continue to provide minimal management of the eight wilderness areas</p> <p>For the foreseeable future there would be no major change in the management of the wilderness areas</p>	<p>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, particularly in the Pinto Valley and Spirit Mountain Wilderness areas</p>	<p>The emphasis would be on continuing to preserve wilderness resources while providing additional opportunities for visitors to access several of the wilderness areas compared to alternatives A and B, particularly in the Pinto Valley and Spirit Mountain Wilderness areas</p>
<b>Wilderness Stewardship Program</b>	<p>No effort to institute a volunteer stewardship program</p>	<p>A volunteer wilderness stewardship program would be established to aid in the management and monitoring of the wilderness areas</p>	<p>Same as alternative B.</p>
<b>Collection of Natural Resources</b>	<p>Not permitted on NPS lands (with the exceptions of permitted scientific collecting)</p> <p>Permitted on BLM lands for non-commercial purposes</p>	<p>Not permitted on NPS lands (with the exceptions of permitted scientific collecting)</p> <p>Not permitted on BLM lands in the Ireteba Peaks, Eldorado, or Spirit Mountain Wildernesses (with the exceptions of permitted scientific collecting);</p>	<p>Same as alternative B.</p> <p>Same as alternative B.</p>
<b>Dogs and Other Pets</b>	<p>Pets would continue to be permitted, with pets required to be on leash on NPS lands</p>	<p>Pets would be prohibited in the wilderness areas.</p>	<p>Same as alternative B</p>
<b>Group Sizes</b>	<p>No limits on group sizes in the wilderness areas</p>	<p>Groups would be limited to no more than 12 people, total, per group, including the leader of the group; groups larger than 12 would be divided</p>	<p>Same as alternative B</p>



	Alternative A (No Action)	Alternative B (Preferred Alternative)	Alternative C
<b>Jimbilnan Wilderness</b>	No changes to management of the area; dispersed access to the area	<p>A kiosk &amp; information would be provided on the area at intersection of Northshore and Boathouse road (road 97)</p> <p>To minimize camping impacts inside the wilderness area the existing designated camping areas located just outside the wilderness would be marked</p>	<p>A kiosk and information would be provided at the intersection of Northshore and Boathouse road (road 97)</p> <p>To minimize camping impacts inside the wilderness area the existing designated camping areas located just outside the wilderness would be marked</p> <p>A designated pullout/trailhead and an official route would be designated along Cleopatra Wash, all the way to the road</p> <p>A route would be provided to Cathedral Canyon</p> <p>A route would be provided to Manganese Wash route via old road</p> <p>A trailhead would be provided at Echo Wash (road 102)</p>
<b>Pinto Valley Wilderness</b>	No changes to the Cottonwood Valley road or to Hamblin Peak	<p>A route to Hamblin Peak would be formalized (cairn system); all other routes would be removed and the area restored</p> <p>A sign/information to Pinto Valley would be provided, with directions to Hamblin Peak at MP 18.2 off the Northshore Road</p> <p>A sign/information would be provided at MP 25.5 off the Northshore Road: a route along the old road to the wash would be designated and maintained</p> <p>A portion of the former Pinto Valley road would be designated a stock/hiker route; the remainder would be a designated hiking route</p>	<p>A route to Hamblin Peak would be formalized (possibility of designated trail) with a loop option</p> <p>A sign/information to Pinto Valley would be provided, with directions to Hamblin Peak at MP 18.2 off the Northshore Road</p> <p>A sign/information would be provided at MP 25.5 off the Northshore Road: a route along the old road to the wash would be designated and maintained; acknowledge the Boulder Wash route</p> <p>Same as alternative 2</p>

	<b>Alternative A (No Action)</b>	<b>Alternative B (Preferred Alternative)</b>	<b>Alternative C</b>
<b>Pinto Valley Wilderness (continued)</b>		If appropriate, after evaluation for national register eligibility the old mine site in the Pinto Valley area would be restored to natural conditions	If appropriate, after evaluation for national register eligibility the old mine site in the Pinto Valley area would be restored to natural conditions  An informational kiosk at the Redstone picnic area (MP27) would be provided
<b>Black Canyon Wilderness</b>	No change to access to Boy Scout Canyon  No new signs, trailheads, or kiosks provided	An access point and information signs would be established at Boy Scout Canyon Road (Approved Road 59) on the route that leads to the canyon  An access point would be established on Boy Scout Canyon (via North Boy Scout Canyon Road 75D, unnamed wash) and a route would be designated down the unnamed wash  A designated route would lead down Boy Scout Canyon  A kiosk would be provided at Canyon Point Road Overlook (view into wilderness area)  Informational signs would be provided at the entry of every road to Black Canyon Wilderness  Informational signs on the wilderness area would be provided at the national recreation area boundary  The old signs in Boy Scout Canyon/Wash would be removed	An access point and information signs would be established at Boy Scout Canyon Road (Approved Road 59) on the route that leads to the canyon  An access point would be established on the Boy Scout Canyon (via North Boy Scout Canyon Road 75D, unnamed wash) and a route would be designated down the unnamed wash  A designated route would lead down Boy Scout Canyon  A kiosk would be provided at Canyon Point Road Overlook (view into wilderness area)  Informational signs would be provided at the entry of every road to Black Canyon Wilderness  Informational signs on the wilderness area would be provided at the national recreation area boundary  The old signs in Boy Scout Canyon/Wash would be removed

	<b>Alternative A (No Action)</b>	<b>Alternative B (Preferred Alternative)</b>	<b>Alternative C</b>
<b>Eldorado Canyon Wilderness</b>	<p>Minimal management of area would continue</p> <p>No additional access or educational materials provided by the agencies</p>	<p>An access point would be established at Highway 165, providing information on a designated route into the wilderness area along Oak Creek and Lonesome Wash</p> <p>An access point would be established at the end of Yucca Camp Road (Approved Road 51) into the wilderness area</p> <p>A sign would be placed at the end of Approved Road 49 where the wilderness area begins.</p>	<p>An access point would be established at Highway 165, providing information on a designated route into the wilderness area along Oak Creek and Lonesome Wash</p> <p>An access point would be established at the end of Yucca Camp Road (Approved Road 51) into the wilderness area</p> <p>A sign would be placed at the end of Approved Road 49 where the wilderness area begins</p>
<b>Ireteba Peaks Wilderness</b>	<p>No change; minimal management of area would continue</p>	<p>No change to access or visitor management of this area</p> <p>Restoration work and tamarisk removal would occur at Tule Springs</p>	<p>A trailhead and maintained route would be provided to Tule Spring from the powerline road at the edge of the wilderness area</p> <p>An access point would be established along Approved Road 22</p> <p>Restoration work and tamarisk removal would occur at Tule Springs</p>
<b>Nellis Wash Wilderness</b>	<p>No change; minimal management of area would continue</p>	<p>Same as alternative A</p>	<p>An access point and information sign would be provided off Approved Road 22</p>
<b>Spirit Mountain Wilderness</b>	<p>Day use and dispersed overnight camping would continue to be permitted on both BLM and NPS lands in the wilderness area</p> <p>No new access provided to the area</p>	<p>Day use and dispersed overnight camping would continue to be permitted on both BLM and NPS lands in the wilderness area</p> <p>Informational signs would be developed at the Spirit Mountain trailhead on Christmas Tree Pass</p>	<p>Only day use would be permitted on both BLM and NPS lands in the wilderness area</p> <p>Informational signs would be developed at the Spirit Mountain trailhead on Christmas Tree Pass</p>

	Alternative A (No Action)	Alternative B (Preferred Alternative)	Alternative C
<b>Spirit Mountain Wilderness (continued)</b>	<p>Pipe Springs Road parking area would continue to be maintained</p> <p>Prohibition on car camping in this area would continue</p> <p>No action would be taken to encourage or discourage visitors from climbing up Spirit Mountain; visitors would continue using user-created trails to hike up to the top of Spirit Mountain</p>	<p>No action would be taken to encourage or discourage visitors from climbing up Spirit Mountain; visitors would continue using user-created trails to hike up to the top of Spirit Mountain</p> <p>Information signs would be installed at Sacatone Wash and Xmas Tree Pass Road and on Pipe Spring Road, at the beginning of the route to Pipe Spring</p> <p>Informational kiosks would be developed at the junction of Approved Road 20 and Highway 163, and at the junction of US95 and Approved Road 20, and an information sign would be placed at the junction of Nevada Telephone Cove Road and Highway 163</p> <p>The road to White Rock Mine would be converted to a route at the point where the road becomes impassable or where a turnaround is present</p> <p>The Lower Grapevine Canyon Road (Approved Road 13) would be converted to a route</p>	<p>An official route would be maintained to the summit of Spirit Mountain (need consultation with tribe)</p> <p>A second route from the SE side of Spirit Mountain also would be maintained</p> <p>A trail register would be installed at the Spirit Mountain access points and the existing register at the summit would be removed</p> <p>Routes would be designated in Sacatone Wash, lower Grapevine Canyon, and to Pipe Spring</p> <p>Information signs would be installed at Sacatone Wash and Christmas Tree Pass Road, and on Pipe Spring Road, at the beginning of the route to Pipe Spring</p> <p>Informational kiosks would be developed at the junction of Approved Road 20 and Highway 163, and at the junction of US95 and Approved Road 20, and an information sign would be placed at the junction of Nevada Telephone Cove road and Highway 163</p> <p>The road to White Rock Mine would be converted to a route at the point where the road becomes impassable or where a turnaround is present</p> <p>An access point would be established off of Christmas Tree Pass Road at Grapevine Canyon</p>



	Alternative A (No Action)	Alternative B (Preferred Alternative)	Alternative C
<b>Bridge Canyon Wilderness</b>	<p>Parking area would be located at Sacatone Wash and Christmas Tree Pass Road into wilderness</p> <p>Trailhead at Grapevine Canyon area also have parking area/turnaround at the end of AR18</p>	<p>An access point would be established at Sacatone Wash off of Christmas Tree Pass Road</p> <p>An access point would be established at upper Grapevine Canyon</p> <p>An access point would be established at the junction of Highway 163 and Approved Road 18</p> <p>The Spirit Mountain kiosks on Christmas Tree Pass, at the intersection of Highway 163 and Christmas Tree Pass and at U.S. Highway 95 and Christmas Tree Pass would also provide information on the Bridge Canyon Wilderness</p> <p>An informational kiosk would be placed in the lower Grapevine Canyon parking area off of Approved Road 20</p> <p>Climbing bolts at Willow Springs would be removed</p> <p>Approved Road 18 would be converted to a hiker route in the national recreation area</p>	<p>An access point would be established at Sacatone Wash and Christmas Tree Pass Road</p> <p>An access point would be established at upper Grapevine Canyon and a formal route would be maintained</p> <p>An access point would be established at the junction of Highway 163 and Approved Road 18</p> <p>The Spirit Mountain kiosks on Christmas Tree Pass, at the intersection of Highway 163 and Christmas Tree Pass and at U.S. Highway 95 and Christmas Tree Pass would also provide information on the Bridge Canyon Wilderness</p> <p>An informational kiosk would be placed in the lower Grapevine Canyon parking area off of Approved Road 20</p> <p>Climbing bolts at Willow Springs would be removed</p> <p>Approved Road 18 would be converted to a stock/hiker route</p>

**Table 10: Summary of Key Impacts of the Alternatives**

	<b>Alternative A (No Action)</b>	<b>Alternative B (Preferred Alternative)</b>	<b>Alternative C</b>
<b>NATURAL RESOURCES – Soils</b>	<p>Some soils would be compacted, eroded, and lost, and some soil properties would be altered due to visitor use in localized areas such as along routes, in washes, and at particular points of interest such as at Boy Scout Canyon and Spirit Mountain.</p> <p>These adverse impacts on soils and cryptogamic soil crust would likely be minor to moderate, highly localized, and long term.</p> <p>When the impacts inside the wilderness areas are added to past and foreseeable future impacts from land uses and increased visitation, there would be the potential for a long-term, minor to moderate, adverse cumulative impact on area soils—although the actions in alternative A would add a very small increment to this overall impact.</p>	<p>Some soils would be eroded and lost and some soil properties would be altered. This would be due to the creation of designated routes and from visitor use in localized areas, such as along routes, in washes, and at specific points of interest.</p> <p>Overall, these adverse impacts would likely be minor to moderate and long term in extent. On the other hand, establishing and monitoring user capacity indicators and standards should help prevent the development of new user-created trails and resulting soil erosion, compaction or loss; this would have a long-term, beneficial impact.</p> <p>When the impacts of alternative B are added to other impacts from past and foreseeable future actions, there would be the potential for a long-term, minor to moderate, adverse cumulative impact on area soils—although the actions in alternative B would add a very small increment to this overall cumulative impact.</p>	<p>Some soils would be eroded and lost and some soil properties would be altered. This would be due to the creation of designated routes and from visitor use in localized areas, such as along routes, in washes, and at specific points of interest.</p> <p>Overall, these adverse impacts would likely be minor to moderate and long term in extent. On the other hand, establishing and monitoring user capacity indicators and standards should help prevent the development of new user-created trails and resulting soil erosion, compaction or loss; this would have a long-term, beneficial impact.</p> <p>When the impacts of alternative C are added to other impacts from past and foreseeable future actions, there would be the potential for a long-term, minor to moderate, adverse cumulative impact on area soils—although the actions in alternative C would add a very small increment to this overall cumulative impact.</p>

	<b>Alternative A (No Action)</b>	<b>Alternative B (Preferred Alternative)</b>	<b>Alternative C</b>
<b>NATURAL RESOURCES – Soils (continued)</b>	No impairment to the national recreation area's lands, resources, and values would result from soil impacts in this alternative.	No impairment to the national recreation area's lands, resources, and values would result from soil impacts in this alternative.	No impairment to the national recreation area's lands, resources, and values would result from soil impacts in this alternative.
<b>NATURAL RESOURCES – Vegetation</b>	<p>Some impacts would occur due to visitor use in the formation of user-created, unofficial trails, and illegal off-highway vehicle use. These adverse impacts would likely be localized, minor to moderate, and long-term in extent. Nonnative plants would likely continue to spread in the wilderness areas, resulting in unknown, long-term, adverse impacts on native vegetation.</p> <p>However, continuing efforts to control nonnative species would likely have a long-term, beneficial impact in local areas.</p> <p>When the impacts inside the wilderness areas are added to past and foreseeable future impacts from past land uses and increased visitation, as well as the beneficial impacts of restoration of disturbed areas, there would be the potential for a moderate to major, long-term, adverse cumulative impact on area vegetation. However, the actions in alternative A would add a very small increment to this overall impact.</p>	<p>Some long-term, negligible to minor, adverse impacts would occur in local areas due to the development of proposed new, designated trails and from visitor use. The existence and spread of nonnative plants would continue to have a negligible to minor, long-term, adverse impact on native vegetation.</p> <p>However, efforts to restore native vegetation, remove tamarisk and user-created trails, and establish and monitor user capacity indicators and standards would likely have long-term, beneficial impacts on native vegetation in localized areas.</p> <p>When the effects of alternative B are added to the effects of other past, present and foreseeable future actions, there would be a negligible to minor, long-term, adverse cumulative impact on native vegetation. The actions in alternative B would add both small beneficial and small adverse increments to this overall cumulative impact.</p>	<p>Some long-term, negligible to minor, adverse impacts would occur in local areas due to the development of proposed new, designated routes and from visitor use. The existence and spread of nonnative plants would continue to have a negligible to minor, long-term, adverse impact on native vegetation.</p> <p>However, efforts to restore native vegetation, remove tamarisk and user-created trails, and establish and monitor user capacity indicators and standards would likely have long-term, beneficial impacts on native vegetation in localized areas.</p> <p>When the effects of alternative C are added to the effects of other past, present, and foreseeable future actions, there would be a negligible to minor, long-term, adverse cumulative impact on native vegetation. The actions in alternative C would add both small beneficial and small adverse increments to this overall cumulative impact.</p>

	<b>Alternative A (No Action)</b>	<b>Alternative B (Preferred Alternative)</b>	<b>Alternative C</b>
<b>NATURAL RESOURCES – Vegetation (continued)</b>	None of the vegetation impacts resulting under this alternative would be sufficient to result in an impairment of the national recreation area's lands, resources, and values.	None of the vegetation impacts that would occur in alternative B would be sufficient to result in an impairment of the national recreation area's lands, resources, and values.	None of the vegetation impacts that would occur in alternative C would be sufficient to result in an impairment of the national recreation area's lands, resources, and values.
<b>NATURAL RESOURCES – Terrestrial Wildlife</b>	<p>Some wildlife habits and movements may be altered due to increased visitor use in localized areas such as in pull-offs outside the wilderness areas, along popular routes, and at points of interest. Long-term, negligible, adverse impacts would continue to occur in localized areas due to visitor use.</p> <p>When the beneficial and adverse impacts of alternative A are added to the impacts that have occurred and are likely to occur in the future in the wilderness areas, there would be a long-term, minor to moderate, adverse cumulative impact on wildlife populations and habitats. However, the actions in alternative A would contribute only a small beneficial increment and a very small adverse increment to this impact.</p> <p>None of the wildlife impacts resulting from alternative A would constitute impairment to the wilderness areas' lands, resources, and values.</p>	<p>Long-term, negligible, adverse impacts would continue to occur in localized areas due to visitor use of the wilderness areas. There would also be long-term, beneficial impacts on some wildlife populations due to vegetation restoration efforts and the closure and restoration of roads and unofficial user-created trails in the wilderness areas.</p> <p>When the beneficial and adverse impacts of alternative B are added to the impacts that have occurred in the wilderness areas, there would be a long-term, negligible to minor, adverse cumulative impact on the areas' wildlife populations and habitats. However, the actions in alternative B would contribute only a small beneficial increment and a very small adverse increment to this impact.</p> <p>None of the wildlife impacts resulting from alternative B would be expected to constitute an impairment of the wilderness areas' lands, resources, or values.</p>	<p>Long-term, negligible, adverse impacts would continue to occur in localized areas due to visitor use of the wilderness areas. There would also be long-term, beneficial impacts on some wildlife populations due to vegetation restoration efforts and the closure and restoration of roads and unofficial user-created trails in the wilderness areas.</p> <p>When the beneficial and adverse impacts of alternative C are added to the impacts that have occurred in the wilderness areas, there would be a long-term, negligible to minor, adverse cumulative impact on the areas' wildlife populations and habitats. However, the actions in alternative C would contribute only a small beneficial increment and a very small adverse increment to this impact.</p> <p>None of the wildlife impacts resulting from alternative C would be expected to constitute an impairment of the wilderness areas' lands.</p>



	Alternative A (No Action)	Alternative B (Preferred Alternative)	Alternative C
<b>NATURAL RESOURCES – Threatened and Endangered Species</b>	<p>A few individual state-listed Las Vegas bear poppy, threecorner milkvetch, and sticky buckwheat may be lost or damaged due to visitor use in the future in localized areas, and rarely some desert tortoise may be harassed by visitors, but this would be expected to have a negligible to minor, long-term, adverse effect on these populations. The alternative would not affect the integrity, distribution, or presence of state and federal threatened and endangered species in the wilderness areas. Overall, alternative A may affect, but would not be likely to adversely affect, the desert tortoise.</p> <p>When the beneficial and adverse impacts of alternative A are added to the impacts that have occurred and are likely to occur in the wilderness areas and adjacent lands, there would be the potential for a long-term, minor to moderate, adverse cumulative impact on the desert tortoise and the areas' state-listed threatened and endangered species populations and habitats. However, alternative A would contribute a very small increment to this overall cumulative impact.</p>	<p>Long-term, negligible, adverse impacts would continue to occur in localized areas due to visitor use of the wilderness areas. There would also be long-term, beneficial impacts on some threatened and endangered species populations due to vegetation restoration efforts, and the closure and restoration of unofficial user-created trails in the wilderness areas.</p> <p>When the beneficial and adverse impacts of alternative B are added to the impacts that have occurred in the wilderness areas, there would be a long-term, negligible to minor, adverse cumulative impact on the areas' threatened and endangered species populations and habitats. However, the actions in alternative B would contribute only a small beneficial increment and a very small adverse increment to this impact.</p>	<p>Long-term, negligible, adverse impacts would continue to occur in localized areas due to visitor use of the wilderness areas. There also would be long-term, beneficial impacts on some threatened and endangered species populations due to vegetation restoration efforts, and the closure and restoration of unofficial user-created trails in the wilderness areas.</p> <p>When the beneficial and adverse impacts of alternative C are added to the impacts that have occurred in the wilderness areas, there would be a long-term, negligible to minor, adverse cumulative impact on the areas' threatened and endangered species populations and habitats. However, the actions in alternative C would contribute only a small beneficial increment and a very small adverse increment to this impact.</p>

	<b>Alternative A (No Action)</b>	<b>Alternative B (Preferred Alternative)</b>	<b>Alternative C</b>
<b>NATURAL RESOURCES – Threatened and Endangered Species (continued)</b>	No impairment to the wilderness areas' lands, resources, and values would result from threatened and endangered species impacts in this alternative.	None of the threatened and endangered species impacts resulting from alternative B would be expected to constitute an impairment of the wilderness areas' lands, resources, or values.	None of the threatened and endangered species impacts resulting from alternative C would be expected to constitute an impairment of the wilderness areas' lands, resources, or values.
<b>NATURAL RESOURCES – Natural Soundscape</b>	<p>Some long-term, minor to moderate, adverse impacts to soundscapes would occur due to visitor use in localized areas such as at parking areas, along popular routes and at points of interest, such as Boy Scout Canyon and Hamblin Peak, illegal off-highway vehicle use, and boating traffic on Lake Mead and Lake Mohave.</p> <p>When the impacts inside the wilderness areas resulting from alternative A are added to past and foreseeable future impacts from uses and activities outside the wilderness areas (primarily overflights from the addition of two new airports), there would be the potential for a long-term, moderate to major adverse cumulative impact on the areas' natural soundscapes—although the actions in alternative A would add a very small increment to this overall cumulative impact.</p>	<p>Some natural soundscapes would be degraded due to visitor use in localized areas such as along routes, in washes, in high use areas such as at Boy Scout Canyon, and in some wilderness areas where boating traffic on Lake Mead and Lake Mohave can be heard. These adverse impacts would likely be negligible to minor and long term in extent.</p> <p>When the impacts inside the wilderness areas are added to past and foreseeable future impacts from visitor use and from the addition of two airports outside the wilderness boundary, there would be a long-term, moderate to major, adverse cumulative impact on the areas' natural soundscapes—although the actions in alternative B would add a very small increment to this overall impact.</p>	<p>Some natural soundscapes would be degraded due to visitor use in localized areas such as along routes, in washes, in high use areas such as Boy Scout Canyon, and in some wilderness areas where boating traffic on Lake Mead and Lake Mohave can be heard. These adverse impacts would likely be minor and long-term in extent.</p> <p>When the impacts inside the wilderness areas are added to past and foreseeable future impacts from visitor use and the addition of two airports outside the wilderness boundary, there would be the potential for a long-term, moderate to major, adverse cumulative impact on the areas' natural soundscapes— although the actions in alternative C would add a very small increment to this overall impact.</p>

	Alternative A (No Action)	Alternative B (Preferred Alternative)	Alternative C
<b>NATURAL RESOURCES – Natural Soundscape (continued)</b>		Continuing efforts to monitor and establish a baseline for natural soundscapes in the wilderness areas, and to develop and implement of mitigation measures would result in a long-term, beneficial impact on the natural soundscapes. Instituting and monitoring user capacity indicators and standards that would address group sizes, illegal off-highway vehicle use, and general noise disturbances would also result in long-term, beneficial impacts on the natural soundscape in the wilderness areas.	Continuing efforts to monitor and establish a baseline for natural soundscapes in the wilderness areas, and to develop and implement mitigation measures would result in a long-term, beneficial impact on the natural soundscapes. Instituting and monitoring user capacity indicators and standards that would address group sizes, illegal off-highway vehicle use, and general noise disturbances would also result in long-term, beneficial impacts on the natural soundscape in the wilderness areas.
	None of the noise impacts resulting from alternative A would be sufficient to result in impairment to the national recreation area's lands, resources, and values.	None of the noise impacts resulting from alternative B would be sufficient to result in impairment to the national recreation area's lands, resources, and values.	None of the noise impacts resulting from alternative C would be sufficient to result in impairment to the national recreation area's lands, resources, and values.
<b>WILDERNESS CHARACTER</b>	Implementing the no-action alternative would have no effect on wilderness character, including untrammeled character, undeveloped character, apparent naturalness, opportunities for solitude, or primitive and unconfined recreation. Because this alternative would have no impact, there would be no project-related cumulative effects.	Implementing alternative B would result in no effects on the undeveloped character of the areas; long-term, negligible to minor, beneficial impacts to naturalness; a long-term, negligible, adverse impact to untrammeled character; long-term, negligible, adverse impacts to opportunities for solitude; and long-term, negligible, beneficial impacts to primitive and unconfined recreation. Cumulative effects on wilderness character would be minor and beneficial.	Implementing alternative C would result in no effects on the undeveloped character of the areas; long-term, negligible, beneficial impacts to naturalness; a long-term, negligible, adverse impact to untrammeled character; long-term, minor, adverse impacts to opportunities for solitude; and long-term, negligible, beneficial and adverse impacts to primitive and unconfined recreation. Cumulative effects on wilderness character would be minor and beneficial.

	<b>Alternative A (No Action)</b>	<b>Alternative B (Preferred Alternative)</b>	<b>Alternative C</b>
<b>WILDERNESS CHARACTER (continued)</b>	No impairment to the national recreation area's resources and values, including wilderness character, would result from this alternative.	No impairment to the national recreation area's resources and values, including wilderness character, would result from this alternative.	No impairment to the national recreation area's resources and values, including wilderness character, would result from this alternative.
<b>CULTURAL RESOURCES – Archeological Resources</b>	In alternative A, there would be some long-term indirect negligible to minor adverse impacts on the wilderness areas' archeological sites as current practices continue and visitation remains light.	<p>Overall, there would be a potential negligible to minor adverse impact from actions proposed in alternative B. Most of the wilderness areas' archeological resources would not be affected by the actions in alternative B. With the creation of designated trails and increased visitor use in localized areas such as along routes, in washes, and at specific points of interest, there may be some minor adverse impacts to archeological sites from trampling or vandalism. Overall, these adverse impacts would likely be minor, although permanent. On the other hand, establishing and monitoring user capacity indicators and standards should help prevent any moderate adverse impacts to archeological sites and instead, could have a beneficial impact through increased preservation and monitoring.</p> <p>Because alternative B would have no adverse effects, it would not contribute to the adverse cumulative effects described above.</p>	The creation of designated routes and increased visitor use in localized areas such as along routes, in washes, and at specific points of interest, would create some negligible to minor adverse impacts to archeological sites due to trampling or vandalism; however, most of these impacts would likely be avoidable. If they occur, these adverse impacts likely would be negligible to minor, although long term. Additionally, establishing and monitoring user capacity indicators and standards should help prevent any moderate adverse impacts to archeological sites and instead could have a moderate beneficial impact through increased preservation and monitoring.

	<b>Alternative A (No Action)</b>	<b>Alternative B (Preferred Alternative)</b>	<b>Alternative C</b>
<b>CULTURAL RESOURCES – Archeological Resources (continued)</b>	There would be no adverse effect under section 106 of the National Historic Preservation Act for archeological sites in the various wilderness areas.	Under §106 requirements, the determination of effect would be no adverse effect for the negligible to minor impacts.	Under §106 requirements, the determination of effect would be no adverse effect for the negligible to minor impacts.
<b>CULTURAL RESOURCES – Ethnographic Resources</b>	Alternative A would have some adverse impacts on the wilderness areas' only traditional cultural property, Spirit Mountain—located in the Spirit Mountain Wilderness. Continued use of the area without instituting some controls on visitor use through the establishment of designated trailheads and signs may result in continuing negligible to minor adverse impacts as visitation remains light. A negligible to minor adverse impact would constitute no adverse effect under §106. However, if a moderate adverse impact is noted, the determination of effect on this national register-listed property for §106 requirements would be an adverse effect.	Alternative B would have some negligible to minor long-term adverse impacts on the wilderness areas' only traditional cultural property, Spirit Mountain, located in the Spirit Mountain Wilderness. A negligible to minor adverse impact would be considered a no adverse effect under §106. However, if a moderate adverse impact is noted, the determination of effect on this national register-listed property for §106 would be an adverse effect. Implementation of alternative B would result in negligible to minor, long-term adverse effects to ethnographic resources. The determination of effect for §106 requirements would be no adverse effect.	Alternative C would have some adverse negligible to minor long-term impacts on the wilderness areas' only traditional cultural property, Spirit Mountain—located in the Spirit Mountain Wilderness. A negligible to minor adverse impact would be a no adverse effect under §106. However, if a moderate adverse impact is noted, the determination of effect on this national register-listed property for §106 would be an adverse effect. It is likely that directed use in the Spirit Mountain Wilderness would serve to keep impacts in the negligible to minor range. Implementation of alternative C would result in negligible to minor, long-term adverse effects to ethnographic resources. The determination of effect for §106 requirements would be no adverse effect.

	<b>Alternative A (No Action)</b>	<b>Alternative B (Preferred Alternative)</b>	<b>Alternative C</b>
<b>VISITOR USE AND EXPERIENCE</b>	<p>Implementing the no-action alternative would result in the continuation of existing adverse and beneficial impacts to visitor use of the wilderness areas. This alternative would not change how visitors use the areas and would have no effect on the number of visitors; therefore, this alternative would have no new impact on visitor use or experience.</p> <p>Because this alternative would have no impact, there would be no project-related cumulative impact.</p>	<p>Implementing the preferred alternative would change how visitors use the areas and could increase the number of visitors, which would have a long-term, negligible to minor, beneficial impact and a long-term negligible adverse impact on visitor use or experience.</p> <p>The overall cumulative effects associated with this alternative would be minor to moderate and beneficial.</p>	<p>Implementing alternative C would change how visitors use the areas and would increase the number of visitors; this would have a long-term, minor, beneficial impact and long-term, negligible to minor, adverse impacts on visitor use and experience.</p> <p>The overall cumulative effects associated with this alternative would be minor to moderate and beneficial.</p>