National Park Service
U.S. Department of the Interior

Great Basin National Park
Nevada

Lower Lehman Creek Campground Expansion
Great Basin National Park

Environmental Assessment

March 2022

Great Basin National Park
100 Great Basin National Park
Baker, NV 89311

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Publication Credits:

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

PURPOSE AND NEED

INTRODUCTION

Great Basin National Park (GRBA or park) is proposing to rehabilitate and expand the Lower Lehman Creek Campground (existing campground). Improvements would include adding more campsites, rehabilitating the existing campsites, and upgrading and extending the existing waterline.

Lower Lehman Creek Campground was constructed in 1955 in what was then known as the Wheeler Peak Scenic Area in White Pine County, Nevada, which is now encompassed by Great Basin National Park, established in 1986. The Wheeler Peak Scenic Area was designated by the U.S. Forest Service (USFS) under their Operation Outdoors program, an effort similar to the National Park Service (NPS) Mission 66 program to improve recreation. The campground has 11 campsites and is one of six campgrounds in the park (Figure 1). It is located at 7,338 feet in elevation along the Lehman Creek corridor and is the first campground visitors come to on their way up the historic Wheeler Peak Scenic Drive. The campground was designed using innovative landscape architecture principles first developed in the 1930s and later incorporated into Operation Outdoors design principles (ERO 2022). Operation Outdoors design principles used landscape architecture to site individual camping spots around a distinctive layout with good vistas. Lower Lehman Creek Campground is sought out for its recreational vehicle (RV) access with six pull-through sites. It is the only campground in the park that remains open year-round. The campground also contains a trailhead for a trail that connects to Upper Lehman Creek Campground, about 0.5 mile away. The trail also connects to the Wheeler Peak Campground, providing access to the Wheeler Peak Summit Trail.

The park has experienced an increase in visitation in recent years, with a peak in visitation in 2017, which had a 45 percent increase in visitation compared to 2015. In 2016, the Strawberry Creek Fire burned 2,790 acres in the park, including all 11 campsites and associated infrastructure at the Strawberry Creek Campground. The increase in visitation and loss of the Strawberry Creek Campground has reduced availability of campsites in the park for visitors until the Strawberry Creek campsites can be replaced, pending funding. Within the last 10 years, five of the six campgrounds in the park have undergone rehabilitation, modernizing the amenities and access. Lower Lehman Creek Campground would be the last to undergo modernization improvements.

PURPOSE AND NEED FOR THE PROJECT

GRBA proposes to reconstruct and expand Lower Lehman Creek Campground to extend its useful life, enhance the public enjoyment of the outdoors, increase campground capacity, and connect visitors to the natural environment.

The project is needed because in the years since its construction, the campground and its features have deteriorated, and its amenities are outdated. Too few restrooms are in place for the number of visitors, and they need to be rehabilitated for accessibility compliance. Fire rings,

grills, and picnic tables need replacement. Accessibility improvements and multilingual signage are needed to better serve a changing park visitor demographic.

PROJECT OBJECTIVES

In addition to the purpose and need, the park identified objectives for the project, which include the following.

1. Ensure that the Lower Lehman Creek Campground will continue to provide outstanding outdoor recreational opportunities.
2. Extend the useful life of the campground.
3. Conserve and restore cultural resources.
4. Stabilize and restore campsites, the trailhead, and fee stations.
5. Minimize and restore impacts on natural resources.
6. Upgrade restrooms and waterlines up to current standards.
7. Improve accessibility and multilingual informational/education signage by adding features in response to a changing visitor demographic.

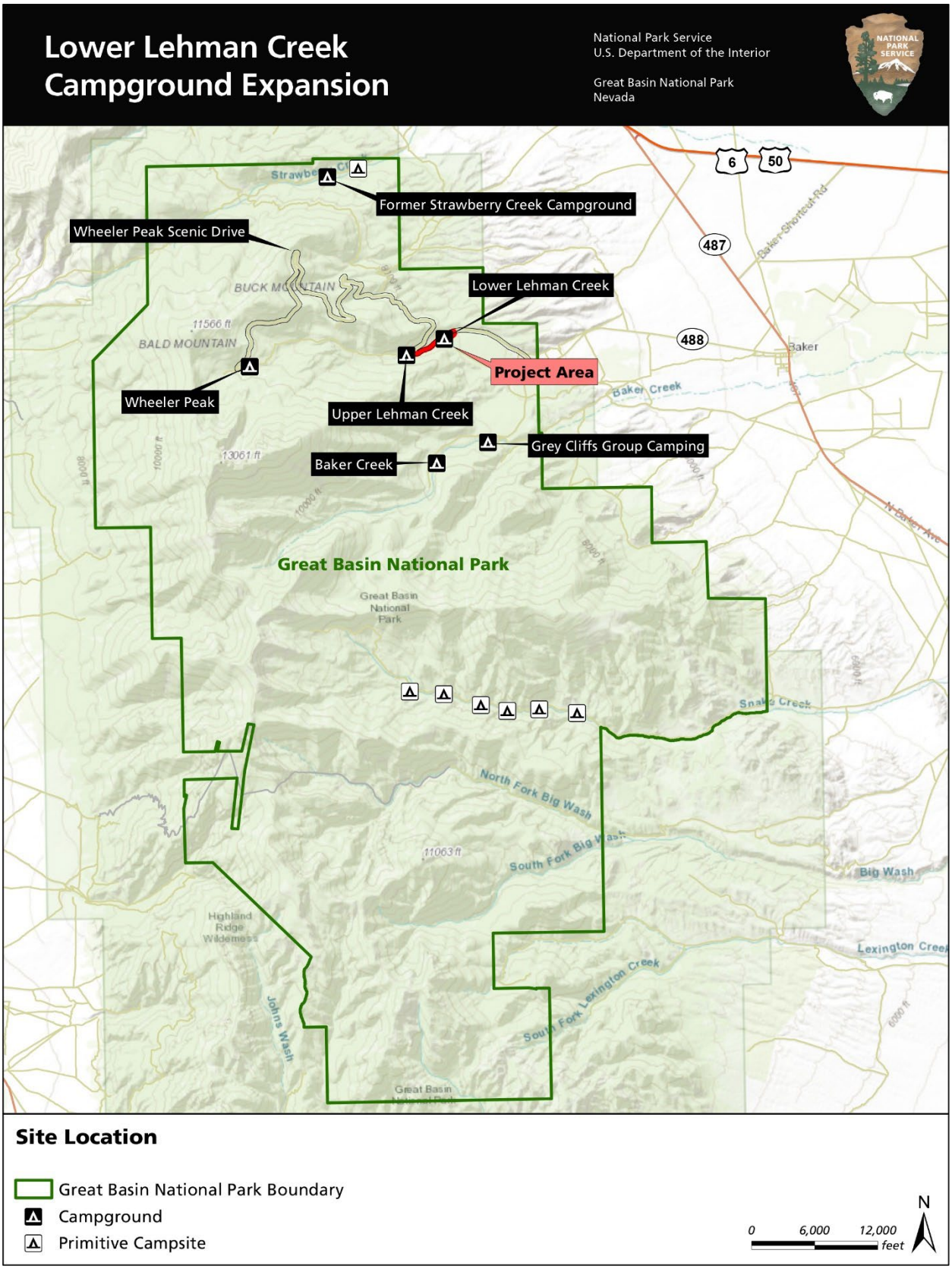

Figure 1. Lower Lehman Creek Campground Vicinity Map.

ALTERNATIVES

Two alternatives are carried forward for analysis in this Environment Assessment (EA): Alternative 1 – Proposed Action and Alternative 2 – No Action. These alternatives are summarized below. During development and consideration of the Proposed Action, the NPS also considered other alternatives that were dismissed due to unacceptable resource impacts or because they did not meet the purpose and need for the project (see *Alternatives Considered but Dismissed* in Appendix B). A Value Analysis Study Workshop (VA) was conducted on September 8, 2021, during the schematic design phase of the project, to evaluate a range of alternatives to meet the project goals. The VA reviewed background information, identified design criteria, and conducted an analysis of the campground entry and expansion alternatives (DHM Design 2021).

ALTERNATIVE 1 – PROPOSED ACTION (PREFERRED ALTERNATIVE)

The proposed action includes rehabilitation of the existing campground, expansion of the campground to add new sites and other facilities including a vault toilet, replacement of the existing waterline with a new waterline, and reconfiguration of the campground entrance from Wheeler Peak Scenic Drive. These project components are described in greater detail below and shown on Figure 2.

Campground Rehabilitation

The existing campground would be rehabilitated and improved. Of the 11 existing campsites, 9 would be retained, including three existing 25- to 45-foot back-in sites and five existing 30- to 52-foot pull-through sites. The existing accessible back-in campsite (campsite #1) would be improved with an asphalt parking pad and concrete use area to meet the requirements of federal accessibility standards and guidelines. One additional back-in campsite (the host site) would be added to the existing road, on the east side near the campground exit. Campsite #11 would be removed to make room for the road leading to the campground expansion, described below.

Campsite #7, which was originally constructed in a wetland area, would be removed and restored to wetlands. Restoration of campsite #7 would consist of removing all infrastructure and nonnative fill, contouring the site to match existing natural grade, and reseeding or planting with native vegetation as needed.

The fee station and trailhead would be improved to match the Upper Lehman Creek Campground fee station, including an asphalt pull-off. Additional improvements at the fee station/trailhead would include a free-standing stone wall, kiosk, iron ranger, and trailhead signage with new interpretive displays. The trail connecting to Upper Lehman Creek Campground would remain in place with minor grading improvements for the trailhead improvements.

Additional improvements to the existing campground would include:

- New campsite furnishings would be installed at each site, including a picnic table, fire pit with grill, and site marker.

- Minor improvements would be made to the concrete at the existing vault toilets and to one of the asphalt pullouts.
- Existing culverts in and around the campground would be cleaned and flushed of sediment and debris. Riprap would be placed at the inlet and outlet sides of the culverts.
- Existing rock headwalls would be protected, except for the rock headwalls at the campground entrance.
- A slurry seal (mixture of water, asphalt emulsion, aggregate, and additives) would be applied to the existing campground road.

Campground Expansion

Eleven new campsites would be constructed in an undeveloped area just east of the existing campground, bringing the total number of campsites at Lower Lehman Creek to 20, including the host site and two accessible campsites (Figure 2). The new campsites would include two 30-foot back-in sites, four 40-foot back-in sites, one 45-foot back-in site, three 50-foot back-in sites, and one accessible 40-foot pull-through site. Site furnishings would include a fire ring, picnic table and campsite marker at each campsite, as described above for the existing campground. The host site would have a sewer vault, water hookup, and propane tank. Campsites would be located along a new one-way S-shaped road located east of the existing campground. Campers would enter the proposed expansion from the existing campground and exit via a new intersection onto Wheeler Peak Scenic Drive. The existing entrance and exit intersections at Wheeler Peak Scenic Drive would remain in place. Pedestrian routes, parking, vault toilet, signage, and campsites would be designed to meet accessibility standards from proposed accessible sites to campsite amenities. Pedestrian circulation would be shared with cars via the campground road corridor.

One additional vault toilet would be constructed. This new accessible vault toilet would be located centrally in the proposed campground area. Installation of the vault toilet would include subgrade preparation and construction of the structural foundation system. An accessible concrete parking area is proposed at the vault toilet for access with one van accessible parking stall and one standard parking stall.

A retaining wall ranging from 6 inches to 3 feet in height would be constructed in the expanded campground area at one campsite. The wall would reduce disturbance to vegetation and preserve existing trees for camper experience and privacy.

Stormwater culverts would be constructed to mitigate runoff from sheet flows through campsites and the new circulation road, where feasible. Culverts are generally proposed where broader areas of sheet flow would have the potential to concentrate and flow through campsites or portions of the circulation road.

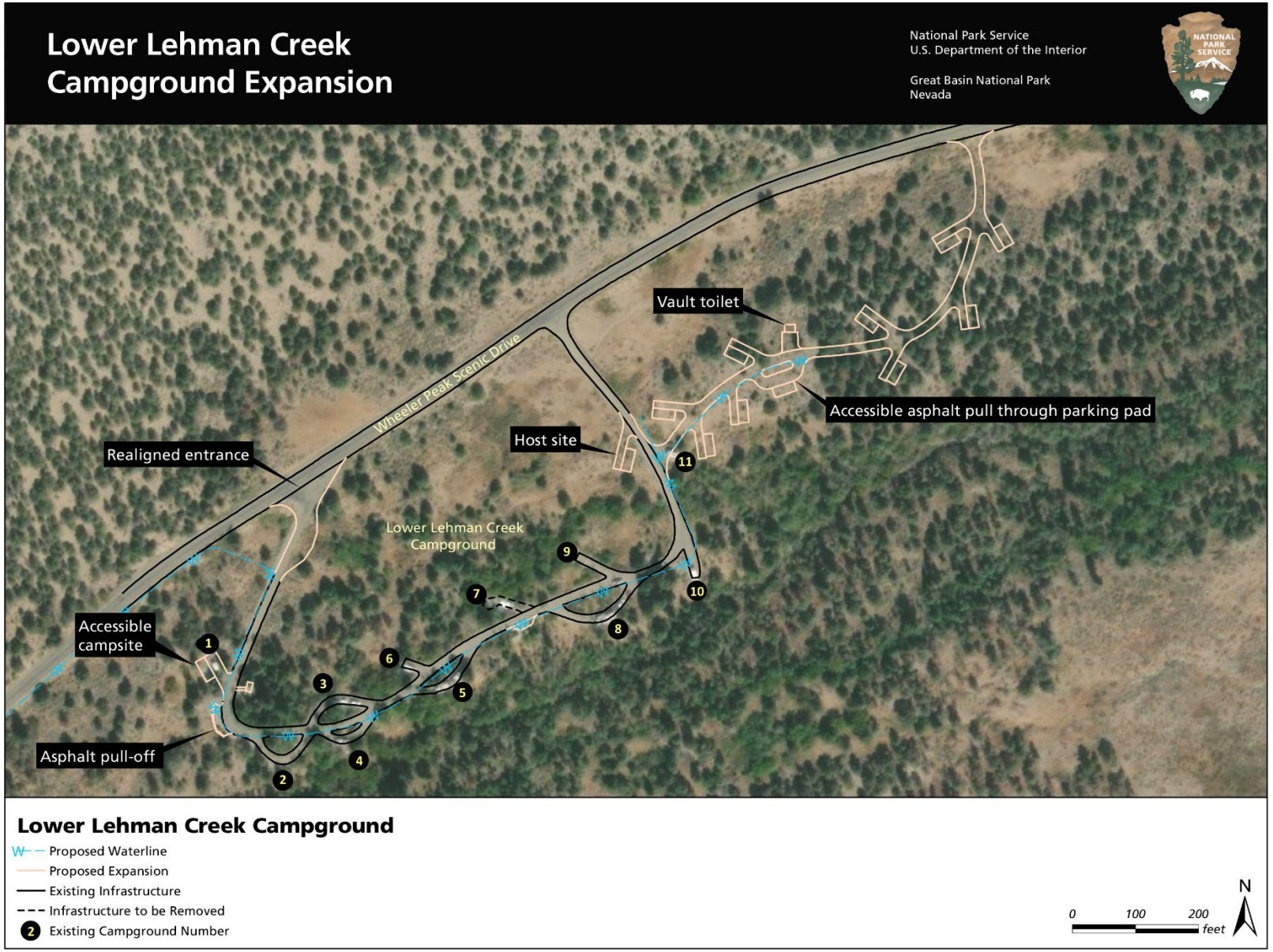

Figure 2. Proposed Lower Lehman Creek Campground Layout

Waterline Replacement

The existing water distribution system would be abandoned and a new waterline installed. This work would include abandoning the existing waterline between Upper Lehman Creek Campground and Lower Lehman Creek Campground and abandoning the existing water distribution system at Lower Lehman Creek Campground. A new 2-inch-diameter, approximately 4,100-linear-foot water main would be installed to replace the existing waterline. A new water distribution system with yard hydrants and associated appurtenances would be installed. The waterline connection at Upper Lehman Creek Campground is shown on Figure 3.

Generally, the water main alignment would follow the shoulder of Wheeler Peak Scenic Drive and turn south on the west side of the Lower Lehman Creek Campground entrance. The surface disturbance during construction would be about 4 feet wide. Through the existing campground area, the water main alignment would follow the shoulder and edge of pavement of the existing circulation road before turning east toward the proposed vault toilet in the expanded campground area. Temporarily disturbed areas would be restored with native vegetation following construction.

Existing yard hydrants or hose spigots would be removed and replaced with new yard hydrants fed from the extended distribution system. Four yard hydrants would be replaced and relocated in the campground area. The existing water distribution system in the campground area would also be abandoned in place and valves would be removed.

The new water main would be 2-inch High Density Polyethylene pipe with associated isolation valves and would include a 2-inch drainpipe for winterization of the system. To account for the approximate 250-foot elevation difference between Upper and Lower Lehman Creek Campgrounds, a 2-inch pressure reducing valve would be installed near the entrance to Lower Lehman Creek Campground to maintain system pressures in the range of 60 to 80 pounds per square inch.

Campground Entrance Reconfiguration

The NPS would reconfigure the existing campground entrance from Wheeler Peak Scenic Drive to allow better access for RVs or vehicles pulling campers and improve safety. The campground entrance would be widened in place with asphalt to the southeast to accommodate turning movements into the campground from the east and west. It is anticipated that the culvert at the campground entrance would be removed and replaced to convey a 100-year storm event. The existing stacked-rock headwalls would be reconstructed to accommodate the new culvert.

Figure 3. Waterline Connection at Upper Lehman Creek Campground.

Schedule and Staging

Construction would begin in late fall 2022 or early spring 2023. Construction is expected to take two seasons and would be weather dependent, continuing until snowfall prevents work in late fall 2023 and resuming in spring 2024. If construction takes two seasons, work would be complete by fall 2024. No vegetation clearing would occur during the migratory bird nesting season, from May 1 to July 15, as described in Appendix A.

Lower Lehman Creek Campground would be closed during construction and would be used for staging as needed. The park plans to open the Baker Creek Campground year-round during construction because the Lower Lehman Creek Campground would be closed. In addition, an existing gravel pit and staging area about 1.7 miles east of the campground on Wheeler Peak Scenic Drive would be used for staging as needed.

Best Management Practices

Best Management Practices (BMPs) and mitigation measures to reduce project construction impacts are listed in Appendix A.

ALTERNATIVE 2 – NO ACTION

Under the No Action Alternative, the NPS would not rehabilitate or expand Lower Lehman Creek Campground. The current operation and management of the campground would continue unchanged. Currently, the accessible campsite, vault toilet, and fee station do not meet accessibility requirements and the waterline does not meet State of Nevada requirements. These conditions would continue under the No Action Alternative.

ALTERNATIVES CONSIDERED BUT DISMISSED

During the development of the proposed action, alternatives were proposed that were dismissed due to resource impacts or because they did not meet the purpose and need for the project. These alternatives are described in Appendix B.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter describes the current and expected future conditions of the resources, including environmental trends (existing setting or baseline conditions), and analyzes the environmental consequences (impacts or effects) that would occur from implementing the alternatives. The analysis considers short and long-term effects and adverse and beneficial effects. The affected environment section discusses environmental trends and past, current, and reasonably foreseeable future actions and their impacts for each of the resource issues. 'Short-term' is used for impacts lasting only for the project duration or during the construction period for an action. 'Long-term' impacts occur beyond the date the project is considered fully implemented and are not readily mitigatable. 'Beneficial' is a positive change in the condition or appearance of the resource or a change that moves the resource toward a desired condition. 'Adverse' is a change that declines, degrades, and/or moves the resource away from a desired condition or detracts from its appearance or condition.

ISSUES IDENTIFIED FOR FURTHER ANALYSIS

In order to identify resource topics to be included in this analysis, the NPS and park staff experts filled out an Environmental Screening Form. As a result, Historic Structures, Districts, and Cultural Landscapes; Vegetation; and Visitor Use and Experience were identified as resources that could be potentially impacted by the proposed action and further analysis was needed. Issues dismissed from detailed analysis can be found in Appendix C.

HISTORIC STRUCTURES, DISTRICTS, AND CULTURAL LANDSCAPES

Affected Environment

The park has rich and diverse cultural resources, including prehistoric and historic archeological resources and historic structures. The park is in the process of designating the Wheeler Peak Scenic Area multiple property that will include the Lower Lehman Creek Campground and project area. Under the proposed designation, the Wheeler Peak Scenic Area would be eligible for listing in the National Register of Historic Places (NRHP) under Criterion A for its association with Operation Outdoors, which is a significant federal program intended to improve recreation on the national forests. The campground was USFS land until Great Basin National Park was established in 1986. The area that is now the Lower Lehman Creek Campground was likely first used for informal camping not long after the establishment of Lehman Caves National Monument in 1922 when tourism began to increase; it may have been further developed by the Civilian Conservation Corps (CCC) in the late 1930s (possibly with an early water system and pit toilets) before being formally constructed in 1955 (ERO 2022; Unrau 1990). The campground was subsequently rehabilitated in the mid-1960s using funding and design principles established under the USFS's Operation Outdoors program, which was intended to enhance recreation amenities on Forest System lands. Operation Outdoors was a federally funded program with a period of significance from 1957 to 1971 in the park. Although the construction of Lower Lehman Creek Campground predates the period of significance, the campground was constructed according to design principles adopted by Operation Outdoors and later

rehabilitated according to Operation Outdoors design principles. Projects in what is now the park were some of the first initiatives by the USFS under the Operation Outdoors program (ERO 2022).

In addition to rehabilitating Lower Lehman Creek Campground under Operation Outdoors, the USFS constructed Wheeler Peak Scenic Drive and established other recreation amenities such as the Summit Trail and trailhead parking area. Rehabilitation of the campground occurred in the 1970s and again in the 2000s when the comfort stations and Campsite #1 constructed by the USFS in 1955 were replaced to comply with the Americans with Disabilities Act (ADA).

Lower Lehman Creek Campground is recommended individually significant as a resource that embodies association under the Recreation context developed by the park and contributes to the proposed Wheeler Peak Scenic Area Operation Outdoors multiple property designation (ERO 2022). Although impacts have occurred to the design and materials associated with the initial construction of the campground in 1955 and rehabilitation in 1965 under Operation Outdoors, the campground still conveys significant aspects of integrity including design (i.e., circulation patterns and layout), setting, feeling, and association with the Operation Outdoors program. Minor impacts have occurred including rehabilitation to Campsites #1 and #7, replacement of original picnic tables, and other campsite materials.

Environmental Consequences

Alternative 1 – Proposed Action

Construction of a campground expansion east of the existing campground would result in an adverse effect on the Lower Lehman Creek Campground by introducing a new recreation amenity that would detract from the historic design, setting, and feeling of the existing campground by introducing a new visual element. Although the design of the campground expansion would be similar to Operation Outdoors design principles, including the use of herringbone-type campsite layout and pull-throughs, introduction of a campground expansion would alter the historical design of the existing campground by adding new ingress from the existing campground circulation pattern. Adverse effects would also occur to the design of the existing campground by widening the ingress, rehabilitating a campsite to improve accessibility, adding an asphalt pull-off parking area, removing a campsite to improve wetlands, and removing a campsite to construct ingress to the campground expansion.

Introduction of a campground expansion would also result in an adverse effect on the proposed Wheeler Peak Scenic Area historic district and cultural landscape by introducing a new visual element to the historic district and cultural landscape. The campground expansion would also introduce a new visual effect on the adjacent Wheeler Peak Scenic Drive, which is a contributing property to the proposed Wheeler Peak Scenic Area historic district and cultural landscape. The effects on the proposed historic district and cultural landscape would be visual and would affect the historic setting and feeling.

The park has considered options to minimize potential effects on historic properties, but still anticipates an adverse effect determination following consultation. Mitigation to minimize adverse effects would be developed in consultation between the NPS and the Nevada State Historic Preservation Officer. Treatment could involve documenting existing conditions using photographs and as-built drawings, as well as interpretive displays introducing the Operation

Outdoors program and its relationship to the history of Lower Lehman Creek Campground and the park.

Alternative 2 – No Action

Under the no action alternative, there would be no new impacts on Lower Lehman Creek Campground. Current management of the campground would continue unchanged and there would be no new impacts on historic structures, districts, and cultural landscapes.

VEGETATION

Affected Environment

Vegetation at the Lower Lehman Creek Campground consists of several vegetation communities including montane sagebrush steppe, seral aspen, montane-subalpine riparian, and wet meadow (NPS 2021a). No special status plant species were found in the project area. Dominant species include sagebrush (*Artemesia tridentata*) and mountain mahogany (*Cerocarpus ledifolius*) in steppe communities, and quaking aspen (*Populus tremuloides*) in the seral aspen community. Other species include pinyon pine (*Pinus monophyla*), white fir (*Abies concolor*), rabbitbrush (*Ericameria nauseosa*), cheatgrass (*Bromus tectorum*), smooth brome (*Bromus inermis*), Indian ricegrass (*Achnatherum hymenoides*), slender wheatgrass (*Elymus trachycaulus*), sandberg bluegrass (*Poa secunda*), and crested wheatgrass (*Agroppyron cristatum*). Populations of invasive exotic species such as bull thistle (*Cirsium vulgare*), musk thistle (*Carduus nutans*), and common mullein (*Verbascum thapsus*) are also present in the project area.

Montane-subalpine riparian plant communities occur along Lehman Creek at the southern border of the project area and are dominated by riparian species including quaking aspen, narrowleaf cottonwood (*Populus angustifolia*), Rocky Mountain juniper (*Juniperus scopulorum*), chokecherry (*Prunus virginiana*), river birch (*Betula occidentalis*), sandbar willow (*Salix exigua*), Booth's willow (*Salix boothii*), Bebb's willow (*Salix bebbiana*), and Woods' rose (*Rosa woodsii*). Prevalent understory species in the riparian community include Baltic rush (*Juncus balticus*), smooth horsetail (*Equiesetum laevigatum*), woolly sedge (*Carex pellita*), Nebraska sedge (*Carex nebrascensis*), blue joint (*Calamagrostis canadensis*), and small wing sedge (*Carex microptera*).

Wet meadow communities are dominated by grasses and sedges, but do not meet the criteria to be considered jurisdictional wetlands. Palustrine forested, scrub-shrub, and emergent wetlands occur along Lehman Creek, in depressional areas south of Wheeler Peak Scenic Drive, and in portions of the Lower Lehman Creek Campground loop (ERO 2020). The dominant wetland plant species in forested wetlands include quaking aspen, river birch, Woods' rose, Baltic rush, smooth horsetail (*Equisetum laevigatum*), fowl mannagrass (*Glyceria striata*), and common threesquare (*Schoenoplectus pungens*). The dominant species in these scrub-shrub wetlands include quaking aspen, sandbar willow, Bebb's willow, panicled bulrush (*Scirpus microcarpus*), and woolly sedge. A small palustrine emergent wetland occurs west of the entrance to the Lower Lehman Creek Campground and south of Wheeler Peak Scenic Drive. The dominant species in this wetland include Woods' rose and Baltic rush.

The shoulder of Wheeler Peak Scenic Drive within the waterline alignment consists of previously disturbed grassland that is periodically mowed. The vegetation of the road shoulder is primarily

introduced and native grasses with some encroachment by trees and shrubs such as pinyon pine, aspen, and mountain mahogany.

Past and ongoing activities that have affected vegetation in the project area include construction of the campground and associated facilities and construction of Wheeler Peak Scenic Drive. The road shoulder of Wheeler Peak Scenic Drive is mowed. The current waterline was buried parallel to the trail from Lower Lehman Creek Campground to Upper Lehman Creek Campground. The waterline is now overtopped by mature mountain mahogany, pinyon pine, and aspen groves. Ongoing maintenance to repair simple leaks and breaks causes periodic damage to vegetation. One campsite (#7) at Lower Lehman Creek Campground was constructed in a wetland area with resulting impacts on wetland vegetation. These disturbances also resulted in introduction of nonnative vegetation such as smooth brome and crested wheatgrass to the campground area and roadside. Past grazing, which occurred until 1999, also contributed to the presence of nonnative plants in the project area. Future trends that could affect vegetation in the park, including the project area, include climate change and resulting increases in the frequency of wildland fires, which could result in changes to vegetation communities. Invasion or continued spread of nonnative plant species could also affect vegetation in the project area.

Environmental Consequences

Alternative 1 – Proposed Action

Rehabilitation and expansion of the campground would result in impacts on vegetation. Campground expansion would result in impacts on vegetation from clearing and grading during construction and from construction of the new campsites and access road. Installation of the waterline would result in impacts on vegetation on the road shoulder from trenching to install the new waterline. The trench to install the waterline would be about 4 feet wide and 3.5 to 5 feet deep, would be routed to avoid trees wherever possible, and would be restored with native vegetation after construction is complete. Rehabilitation and expansion of the campground and construction of the waterline would result in the short-term removal of about 1.66 acres of shrubland, grassland, and riparian woodland vegetation communities, which would result in an adverse effect on vegetation. Short-term impacts on vegetation would be restored as described in Appendix A. Expansion of the campground would also result in permanent loss of vegetation on about 0.79 acre from construction of new facilities such as the campground road and concrete camping pads. Overall, the project would affect less than 0.01 percent of the entire park's vegetation. Existing wetlands in the project area would be avoided and would not be impacted during construction. Vegetation impacts are summarized in Table 1 and shown on Figure 4.

Table 1. Vegetation Impacts

Vegetation Type	Impact Restored After Construction (acres)	Permanent Impact (acres)
Montane sagebrush steppe	1.48	0.73
Montane-subalpine riparian	0.09	0.03
Mountain mahogany	0.001	0
Seral aspen	0.005	0
Wet meadow*	0.08	0.03
Total vegetation impacts	1.66	0.79

*Wet meadow communities are dominated by grasses and sedges, but do not meet the criteria to be considered jurisdictional wetlands.

Areas that require vegetation clearing and removal under the proposed action would be subject to an overall loss of productivity until restoration is complete. Grassland vegetation such as wet meadows would be expected to recover within a few years, with implementation of post-installation restoration, as described in the mitigation measures in Appendix A. Woody vegetation such as sagebrush, mountain mahogany, and aspen would take longer to recover, potentially returning to conditions similar to surrounding undisturbed areas in years or decades. Manual or chemical treatments would be used to control invasive nonnative species as necessary in revegetated areas. Additional mitigation measures would be implemented (Appendix A) to prevent the spread of exotic plant species as the result of vegetation and soil disturbance and to avoid or minimize impacts on existing vegetation near the project area.

Because the current water system is buried beneath mature mountain mahogany, aspen, and pinyon in places, minor breaks and leaks often require disturbance to vegetation to repair. Abandoning the current waterline in place would reduce the disturbance of vegetation required for periodic repairs to the pipeline, resulting in a long-term benefit to vegetation.

Restoration of wetlands at campsite #7 would restore about 0.02 acre of wetlands in an area that is currently a developed campsite. As previously described, restoration of campsite #7 would consist of removing all infrastructure and nonnative fill, contouring the site to match existing natural grade, and reseeding or planting with native vegetation as needed. Restoration of campsite #7 would result in a beneficial effect on vegetation by restoring a site that is currently impacted to a more natural state and creating new wetlands.

Overall, the proposed action would have long-term adverse effects from removal of up to 2.45 acres of vegetation during construction; however, most impacted areas (about 1.66 acres) would be restored with native vegetation after completion of construction, and invasive nonnative plant species would be controlled as described above. The proposed action would also have a beneficial effect on vegetation from elimination of occasional vegetation disturbance for waterline repair and from restoration of previously impacted wetlands at campsite #7. When project impacts on up to 2.45 acres of vegetation are combined with the effects of past, present, and future actions described above, overall impacts would continue to be long-term and adverse.

Alternative 2 – No Action

Under the no action alternative, the park would not rehabilitate or expand the Lower Lehman Creek Campground and there would be no new impacts on vegetation. Current conditions and management of Lower Lehman Creek Campground would continue. Ongoing impacts on vegetation from periodic maintenance of the waterline would continue.

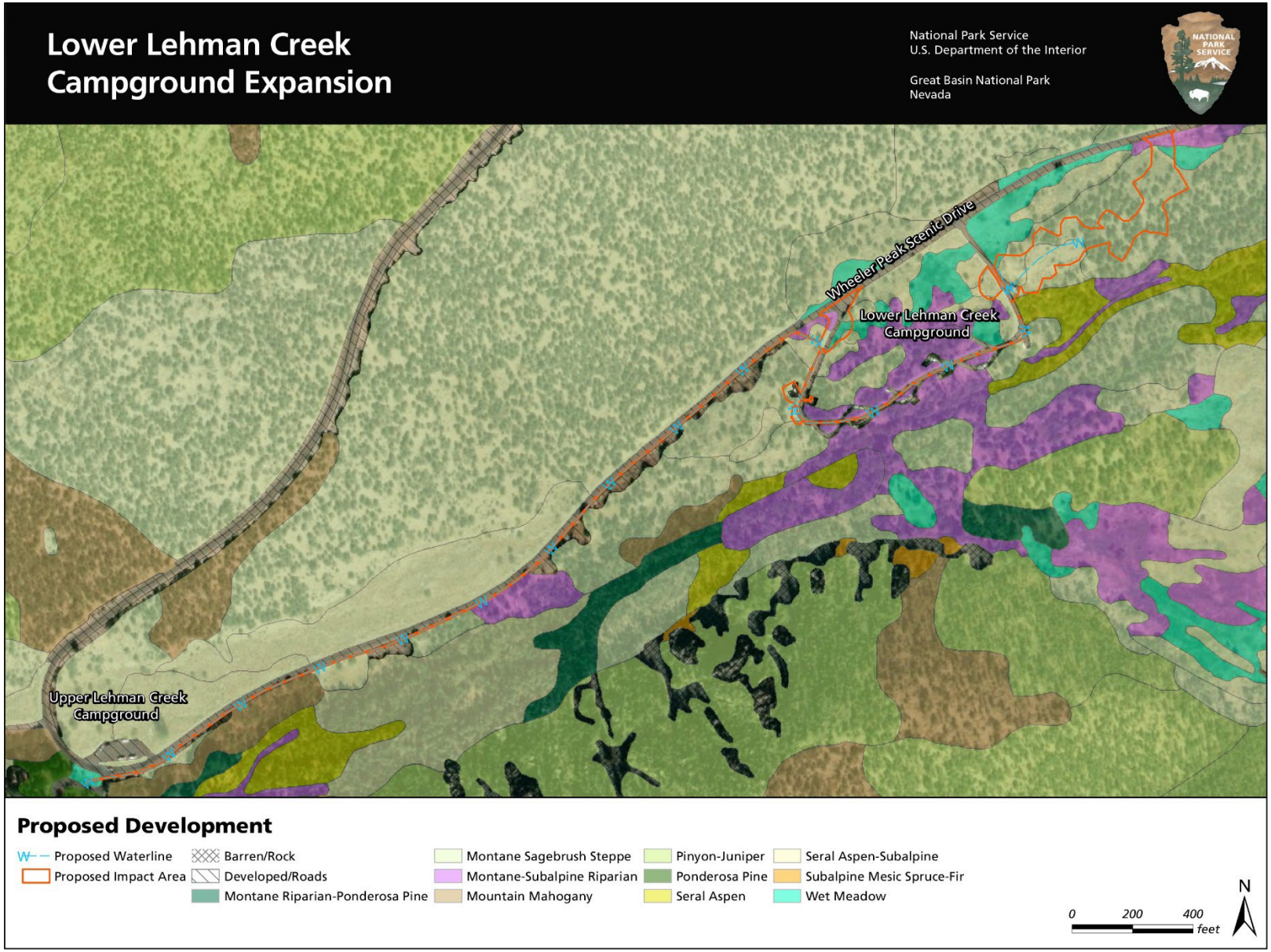

Figure 4. Vegetation Communities and Impacts.

VISITOR USE AND EXPERIENCE

Affected Environment

Visitor activities in the park include hiking, camping, touring Lehman Caves, and driving Wheeler Peak Scenic Drive. Lower Lehman Creek Campground is one of five developed campgrounds in the park. Lower Lehman Creek Campground is the only campground open year-round. Other campgrounds are generally open May through October, weather permitting. Water is not available at Lower Lehman Creek Campground in the winter due to freezing conditions. Each developed campground has vault toilets, picnic tables, tent pads, and campfire grills. There are no electric hookups at the campgrounds. The capacity at each campsite is limited to eight people, three tents, and two vehicles.

The five developed campgrounds in the park provide a total of 124 campsites. An additional developed campground with 11 sites formerly existed at Strawberry Creek but was destroyed by the Strawberry Creek Fire in 2016. The park is pursuing funding to replace the Strawberry Creek campsites. In addition to the developed campgrounds, primitive campgrounds can be found along Snake Creek Road and are open from May through October, weather permitting. Developed campgrounds in the park are summarized in Table 2.

Table 2. Developed Campgrounds in the Park.

Campground	Number of Sites	Open Season	Reservations	RV/Trailer Size
Lower Lehman Creek	11	Year-round	Yes	Up to 40 feet
Upper Lehman Creek	23	June through October	Yes	Up to 24 feet
Wheeler Peak	37	June through October*	No	Up to 24 feet
Baker Creek	37	Memorial Day through Labor Day	No	Up to 50 feet
Grey Cliffs	16	Memorial Day through Labor Day	Yes	Not allowed

*Closed for 2021 season due to rehabilitation.

In addition to camping facilities, Lower Lehman Creek Campground contains a trailhead for a trail that connects to Upper Lehman Creek Campground, about 0.5 mile away. The trail also connects to the Wheeler Peak Campground, providing access to the Wheeler Peak Summit Trail.

The facilities at Lower Lehman Creek Campground, while serviceable, have deteriorated and amenities such as fire rings and picnic tables are outdated. Other campgrounds at the park (Upper Lehman Creek, Wheeler Peak, Baker Creek, and Grey Cliffs) have been rehabilitated and updated in the past 10 years.

Ongoing activities and future trends that could affect visitor use and experience in the project area include increasing visitation and continued demand for campsites in the park. Although visitation fluctuates from year to year, visitor numbers have been increasing in recent years. The park set visitation records every year from 2014 to 2017, with visitor numbers ranging from about 107,000 to 168,000 between 2014 and 2020 (NPS 2021b). Visitor numbers are highest from June through September. Most overnight stays in the campgrounds occur from May through October, with July and August being the busiest months. The number of overnight stays in campgrounds has also increased over time, especially in the July and August peak season (NPS 2021b).

A planned future project that could affect visitor use is the Bristlecone Recreation Area project. Proposed upgrades and improvements to Bristlecone Recreation Area and trailhead would

include reconstructing the Bristlecone parking area and upgrades to improve access and drainage. The Bristlecone Recreation Area project could result in closure of Wheeler Peak Scenic Drive for safety reasons during construction. While specific dates are unknown, this closure is expected to occur during summer 2023.

Environmental Consequences

Alternative 1 – Proposed Action

Rehabilitation of the existing campground would result in long-term beneficial effects on visitor use and experience. Reconstructing and resurfacing the campground road and campsite spurs and replacing outdated restrooms and other campground facilities would improve the visitor experience by extending the life of the campground and providing a higher quality experience for campers using the campground.

Improvements to the kiosk and interpretive signs would improve the visitor experience by educating visitors about the cultural and natural resources of the park. Use of multilingual interpretive signs would improve the experience of the growing number of visitors to the park from underserved communities. Improvements to the accessible campsite and construction of a new accessible campsite would have beneficial effects on visitors with disabilities by improving accessibility and removing barriers. Improving the trailhead for the trail between Upper Lehman Creek and Lower Lehman Creek Campgrounds would benefit the visitor experience by improving access.

Expanding Lower Lehman Creek Campground would provide 11 new campsites, increasing the current number of developed campsites in the park from 124 to 135, an increase of 9 percent. Expanding the campground would benefit the visitor experience at the park by meeting growing visitor demand for campsites, especially in the summer months. Expanding the campground would also provide much-needed space for larger RV access. Expanding the campground would help meet visitor demand for sites that can accommodate larger RVs. The campground expansion would also provide visitors access to the existing trail systems connecting the campground to the Wheeler Peak Recreation and Summit Areas.

Replacing the waterline that provides water to the campground would benefit the visitor experience by extending the life of the water system and ensuring compliance with water quality standards.

The current campground entrance configuration requires a sharp turn and is sometimes difficult for larger RVs and vehicles pulling campers. Improvements to reconfigure the campground entrance would improve the visitor experience by allowing better access for RVs and vehicles pulling campers.

During construction, Lower Lehman Creek Campground would be closed to visitors because facilities would be under construction and unavailable, and because portions of the campground may be used for staging construction materials. Closure would last for up to two years. Closing the campground would remove 11 of the 124 developed campsites, about 9 percent of the total number of developed campsites in the park, for the duration of the project. The closure would adversely affect the visitor experience for those visitors hoping to camp in the park during the summer months, as fewer campsites would be available. Campers with large RVs and visitors

hoping to camp at the Lower Lehman Creek Campground in the winter months would be disproportionately affected because Lower Lehman Creek Campground can accommodate large RVs and because it is the only campground in the park open year-round. The number of sites that can accommodate large RVs would decrease from 48 to 37 during the peak season, a decrease of about 23 percent which would last until construction is complete.

To mitigate the effects of closing the campground during construction, the park would keep the Baker Creek Campground open year-round during closure of the Lower Lehman Creek Campground. This would mitigate the loss of camping opportunities in the park during the off season but would not address the loss of 11 campsites at Lower Lehman Creek Campground during the summer months for two consecutive years during construction. The park would advertise the closure in advance of construction on the park's website and through social media to inform visitors and allow them to make alternate plans, and make visitors aware of the availability of the Baker Creek Campground as an alternate camping destination in the park.

Installation of the waterline along Wheeler Peak Scenic Drive could require road closures or restrictions, which could adversely affect visitors travelling to Upper Lehman Creek Campground, Wheeler Peak, or other facilities accessed from the road by delaying or preventing travel to these areas. In addition, Wheeler Peak Scenic Drive may be closed from mid-July to late August during construction of the Bristlecone Recreation Area project, resulting in adverse effects on visitor use during the construction period.

Overall, rehabilitation and expansion of Lower Lehman Creek Campground would improve the visitor experience by improving campground facilities and providing additional campsites in the park. The proposed action would also result in short-term adverse effects on visitor use during construction.

Alternative 2 – No Action

Under the no action alternative, the park would not upgrade or expand Lower Lehman Creek Campground. The current deteriorated and outdated condition of the campground would continue and would worsen over time. While the no action alternative would result in minor adverse impacts on visitor experience for campers using Lower Lehman Creek Campground, these adverse conditions would not prevent most visitors from enjoying their park experience and would not decrease the number of people visiting the park.

CONSULTATION AND COORDINATION

The park conducted civic engagement activities to ensure the public has opportunities to provide input on the project. Civic engagement that has occurred for this project to date includes letters sent to the park's affiliated tribes, a press release, and public scoping notices. The activities that have occurred thus far are summarized below.

CIVIC ENGAGEMENT SUMMARY

The park initiated public scoping on November 2, 2021 in accordance with NPS guidance under the National Environmental Policy Act (NEPA), and the public comment period ran through December 1. Public notices were distributed through the following sources:

- A press release posted on the park website
- A news release sent electronically (via email) to various stakeholders, agencies, and media groups

The park received three correspondences during scoping, and the comments were considered during the development of this EA.

ENDANGERED SPECIES ACT

Based on a review of the project area by park staff of the federally listed species known to occur near the project area, no impacts are anticipated on special status species. Should the avoidance measures described in Appendix A not be feasible during future design or implementation, the NPS would consult with the U.S. Fish and Wildlife Service on the potential effects of the proposed action on federally listed species as required by Section 7 of the Endangered Species Act.

NATIONAL HISTORIC PRESERVATION ACT AND TRIBAL CONSULTATION

As required by Section 106 of the National Historic Preservation Act, the park is consulting with the Nevada State Historic Preservation Office and associated tribes to assess the effect of the project on historic properties. The Section 106 consultation process is being conducted separately from, but concurrently with, the NEPA process. Consultation under Section 106 is ongoing, and the park will continue consultation as appropriate during project implementation.

The park sought tribal input to help inform the analysis of the proposed action. The project was introduced to affiliated tribes during regularly scheduled meetings shown below, and the tribes were sent letters (December 2021) regarding the project:

- Duckwater Shoshone (August 30, 2021)
- Ely Shoshone (June 10, 2021)
- Confederated Tribes of the Goshute (July 16, 2021)

PUBLIC REVIEW

The EA will be on formal public and agency review for 30 days and has been distributed to a variety of interested individuals, agencies, and organizations. It also is available on the internet at https://parkplanning.nps.gov/LowerLehmanCreekCG.

REFERENCES

DHM Design. 2021. Value Analysis Study for Lower Lehman Campground at Great Basin National Park. GRBA 311594. Draft Report. October 26.

ERO Resources Corporation (ERO). 2020. Aquatic Resources Inventory Rehabilitate Bristlecone Recreation Area and Lower Lehman Creek Campground Great Basin National Park White Pine County, Nevada.

ERO Resources Corporation (ERO). 2022. *Operation Outdoors Historic Context and Determination of Eligibility, Wheeler Peak Scenic Area Historic District and Cultural Landscape*. For submittal to Great Basin National Park by ERO Resources Corporation, Denver.

National Park Service (NPS). 2015. National Park Service NEPA Handbook. https://www.nps.gov/subjects/nepa/upload/NPS_NEPAHandbook_Final_508.pdf.

National Park Service (NPS). 2021a. Unpublished vegetation data, provided by Great Basin National Park.

National Park Service (NPS). 2021b. Visitation data for Great Basin National Park. https://www.nps.gov/aboutus/visitation-numbers.htm.

Unrau, Harlan D. 1990. *Historic Resource Study*. Prepared by the U.S. Department of the Interior, National Park Service and on file, Technical Information Center, Denver Service Center, Denver.

U.S. Environmental Protection Agency (USEPA). 1998. Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses. April.

APPENDICES

Appendix A: Mitigation and Best Management Practices

APPENDIX A: MITIGATION AND BEST MANAGEMENT PRACTICES

The following practices would be implemented under the proposed action.

Measures	Responsible Party
General Measures	
Fuel containment would be required for all fuel caches.	Construction contractor
Equipment would be free of any fluid leaks (fuel, oil, hydraulic fluid, etc.) upon arrival to the work site and would be inspected at the beginning of each shift for leaks. Leaking equipment would be removed off-site for necessary repairs before the commencement of work.	Construction contractor
All work would be restricted to the pre-approved construction area. No impacts on areas outside of the construction area would occur.	Construction contractor
The project area would be kept trash free at all times.	Construction contractor
Construction equipment would be restricted to paved surfaces where practicable to avoid impacts on natural and cultural resources, including wetland areas. If construction equipment must be used or staged off paved surfaces, best management practices (BMPs) would be implemented to minimize potential for adverse impacts.	Great Basin National Park (GRBA) project manager, construction contractor
The contractor would be required to follow National Park Service (NPS) construction contract standards during construction, including implementation of an accident prevention program, installation of warning signs at the construction site and along the nearby parking lot, and installation and maintenance of construction fences around the construction sites to prevent noncontractors and the public from entering the construction areas.	Construction contractor
A spill prevention and pollution control program would be implemented for hazardous materials. Standard measures would include hazardous materials storage and handling procedures; spill containment, cleanup, and reporting procedures; and limitation of refueling and other hazardous activities to nonsensitive sites.	Construction contractor
The construction area would be fenced to keep related disturbances within a NPS-defined and minimal impact area required for construction.	Construction contractor
All mitigation/protection measures would be clearly stated in the construction specifications, and workers would be instructed to avoid conducting activities beyond the fenced construction zone.	Construction contractor

Measures	Responsible Party
Fueling of machinery would be conducted only in approved equipment staging areas away from water bodies. Any spills of hazardous materials or fuel would be cleaned up immediately to prevent contamination or discharge into ground or surface waters. Construction equipment would be regularly inspected for leaks of fuel, lubricants, and other chemicals.	Construction contractor
Air Quality	
Standard dust abatement measures would include the following elements: watering or otherwise stabilizing soils, covering haul trucks, employing speed limits on unpaved roads, minimizing vegetation clearing, and revegetating after construction.	GRBA project manager, construction contractor
Archeological Resources	
If human remains are discovered during construction activities, all work on the project would stop and the Great Basin National Park (park) archeologist would be contacted immediately. As required by law, the coroner would be notified first. All provisions outlined in the Native American Graves Protection and Repatriation Act (1990) would be followed.	GRBA project manager, construction contractor
If previously unknown archeological resources are discovered during construction, all work in the immediate vicinity (600 feet) of the discovery would be halted until the resources are identified and documented and an appropriate mitigation strategy developed, if necessary, in accordance with pertinent laws and regulations, including the stipulations of the 2008 Programmatic Agreement Among the National Park Service (U.S. Department of the Interior), the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers.	GRBA project manager, construction contractor
All workers would be informed of the criminal penalties for illegally collecting artifacts or intentionally damaging any archeological or historic property. Workers would also be informed of the correct procedures should previously unknown resources be uncovered during construction activities.	GRBA project manager, construction contractor
The limits of the area(s) surveyed for archeological resources would be identified at the construction contract start-up meeting and clearly flagged in the field. The NPS would ensure that all contractors and subcontractors are informed of the penalties for illegally collecting artifacts or intentionally damaging archeological sites, historic buildings and structures, or elements of the cultural landscape.	GRBA project manager, construction contractor

Measures	Responsible Party
If during construction previously unknown archeological resources are discovered, all work in the immediate vicinity of the discovery would be halted until the resources could be identified and documented and, if the resources cannot be preserved in situ, an appropriate mitigation strategy developed in consultation with the State Historic Preservation Officer (SHPO) and, as necessary, traditionally associated American Indian tribes. In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (25 United States Code 3001) of 1990 would be followed. If non-Indian human remains are discovered, standard reporting procedures to the proper authorities would be followed, in addition to all applicable federal, state, and local laws.	Construction contractor, park cultural resources staff
Historic Structures / Cultural Landscapes	
Rehabilitation of historic buildings and structures would adhere to the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation*.	Park cultural resources staff, GRBA project manager
No National Register of Historic Places listed or eligible buildings or structures would be removed or allowed to decay naturally ("molder") without prior review by park and region cultural resource specialists, including approval by the regional director, and consultation with the SHPO. Before a National Register of Historic Places listed or eligible structure is removed or allowed to molder, appropriate documentation recording the structure would be prepared in accordance with Section 110(b) of the National Historic Preservation Act and the documentation submitted to the Historic American Buildings Survey/Historic American Engineering Record/Historic American Landscapes Survey (HABS/HAER/HALS) program.	Park cultural resources staff, GRBA project manager
Rehabilitation of the cultural landscape features would adhere to the *Secretary of the Interior's Standards for the Treatment of Historic Properties and the Guidelines for the Treatment of Cultural Landscapes*.	Park cultural resources staff, GRBA project manager
Because the project may affect historic structures that contribute to the Wheeler Peak Scenic Area historic district (if designated), the NPS must consider the effects of the undertaking on historic properties and afford the SHPO an opportunity to comment on the potential effects of the project on the historic district and contributing structures. If consultation results in a determination of adverse effect, the NPS, in consultation with the SHPO and other consulting parties, would work to minimize or mitigate the effects of the undertaking on historic properties.	Park cultural resources staff, GRBA project manager

Measures	Responsible Party
Night Sky	
The NPS would strive to limit the use of artificial outdoor lighting to that which is necessary for basic safety requirements and to ensure that all outdoor lighting is shielded to the maximum extent possible to keep light on the intended subject and out of the night sky.	GRBA project manager, construction contractor
Paleontological Resources	
If unknown paleontological resources are discovered during construction, work in that location would be stopped until the resources can be properly recorded and evaluated. Measures would be taken to avoid further resource impacts or to mitigate their loss or disturbance	Park cultural resources staff, GRBA project manager
Public Health and Safety	
The length of trench permitted to be open at any time would be limited when, in the opinion of the GRBA project manager, such limitation would be necessary for public safety, and would be less than 400 feet.	GRBA project manager, construction contractor
All trenches and excavations left open overnight would be protected with fencing, concrete barriers, signage, or any other measures required to protect public safety.	GRBA project manager, construction contractor
Soils and Water Quality	
All sedimentation control devices/materials would be inspected weekly for quality control. Replacement of worn or damaged components would be undertaken immediately.	Construction contractor
A Stormwater Pollution Prevention Plan (SWPPP) would be prepared for the project that would identify best management practices consistent with the Nevada Department of Environmental Protection's requirements.	Construction contractor
Soil erosion would be minimized by limiting the time that soil is left exposed and by applying other erosion-control measures, such as erosion control matting, silt fencing, and sedimentation basins in construction areas to reduce erosion, surface scouring, and discharge to water bodies.	Construction contractor
Soundscape Management	
Noise abatement measures would be implemented during construction. Standard noise abatement measures would include the following: a schedule that minimizes impacts on adjacent noise-sensitive uses, the use of the best available noise-control techniques wherever feasible, the use of hydraulically or electrically powered impact tools when feasible, and location of temporary noise sources as far from sensitive uses as possible.	Construction contractor
To reduce noise and pollution emissions, construction equipment would not idle any longer than is necessary for safety or mechanical reasons.	Construction contractor

Measures	Responsible Party
Mufflers and sound attenuation devices would be installed and maintained on all equipment and vehicles, only well-maintained and properly functioning equipment and vehicles would be used, and portable wooden sound screens would be used to minimize particularly noisy operations such as air compressors.	Construction contractor
Vegetation	
All vehicles, equipment, and tools would be cleaned (i.e., pressure washed to remove mud, debris, and plant material) prior to entering the park to prevent the spread of nonnative plant material. Before entering the park, equipment would be inspected by NPS staff for compliance.	GRBA project manager, construction contractor
Invasive plants would be removed from construction areas using approaches prescribed in the NPS Integrated Pest Management Program.	GRBA project manager, park natural resources staff
Any vegetation lost during the construction process would be mitigated with the planting or seeding of native species. Seed would be certified weed-free, and all planting stock, seed mixes, and vendors for revegetation materials would be preapproved by the NPS.	GRBA project manager, park natural resources staff
BMPs would be implemented to prevent the spread or introduction of invasive plants, such as ensuring that construction-related equipment arrives at the site free of mud and seed-bearing materials and certifying that any seeds or straw material are weed free. Tools and machinery would be thoroughly cleaned when moving from an area heavily covered with invasive plants to an area without invasive vegetation.	Construction contractor
Only certified weed-free products would be used. Agricultural products (e.g., straw or matting) would be obtained from the local area. When not available locally, products would be sourced from northern latitudes and from states with an established weed-free certification program.	GRBA project manager, park natural resources staff
Gravel and fill would be sourced from the project area or local area whenever possible.	Construction contractor
Visitor Use and Experience	
A traffic control plan would be implemented, as warranted. Standard measures include strategies to maintain safe and efficient traffic flow during the construction period.	Construction contractor
Information on upcoming closures, including closure dates and arrangements of alternative access points, would be posted on the park website, distributed at other visitor centers in the park, and posted at the project site. When closures are necessary, information on alternative opportunities for visitor use would be publicized on the park website and on signs at the access points.	GRBA project manager, park Public Information Officer

Measures	Responsible Party
There may be some periods when the nature of the construction work may require temporary road closures or traffic may be periodically subjected to alternating one-way flow. All efforts would be made to reduce any delays as much as possible and to alert park staff as soon as possible if delays longer than normal are expected. Flaggers would be used during work hours to control traffic and visitors would be informed of construction activities and associated delays.	GRBA project manager, construction contractor
Construction equipment would not be stored along roads overnight without prior approval of park staff.	Construction contractor
The Public Information Officer would be provided with the project schedule as soon as it is known and provide periodic updates of project work.	GRBA project manager, Public Information Officer, construction contractor
A public information program to warn of temporary closures, delays, and road hazards during construction would be implemented. This program would help convey appropriate messages to the public and aid in mitigating potential impacts on visitors' expectations and experiences. The public information program would ensure that this project is communicated to affected staff and visitors.	GRBA project manager, Public Information Officer
Temporary full closure of areas outside the construction limits may be necessary on limited occasions. Such full closures would be for the minimal time required to complete the work activity.	GRBA project manager, construction contractor
Wetlands	
Where wetlands occur near construction activities, construction limits would be clearly demarcated, such as with fencing, to minimize the potential for wetland fill outside of the intended project area.	Construction contractor
Wildlife	
No tree cutting or vegetation clearing would occur between May 1 and July 15 to protect nesting birds and ensure compliance with the Migratory Bird Treaty Act.	GRBA project manager, construction contractor
BMPs would be implemented to reduce the potential for wildlife to scavenge food from humans. Wildlife-proof garbage containers would be required at all construction sites.	Construction contractor
Temporary earthen wildlife escape ramps would be provided as necessary to prevent wildlife becoming entrapped within the trench during waterline construction if trenches are left open overnight.	GRBA project manager, construction contractor

Appendix B: Alternatives Considered but Dismissed

APPENDIX B: ALTERNATIVES CONSIDERED BUT DISMISSED

Loop Campground Configuration

The park considered a loop configuration for the campground expansion (Figure B-1). Vehicles would enter and exit the one-way counterclockwise loop from the eastern portion of the existing campground. The total number of campsites in the existing campground and the campground expansion would be either 20 or 21, depending on the specific configuration. Accessibility improvements, waterline replacement, and rehabilitation of facilities such as campsites and the campground entrance would be the same as under Alternative 1. The loop configuration was dismissed because it would result in greater impacts on natural and cultural resources due to a greater area of disturbance from clearing and grubbing, and greater visual intrusion from Wheeler Peak Scenic Drive. The loop configuration would also be less compatible with the original traffic circulation pattern.

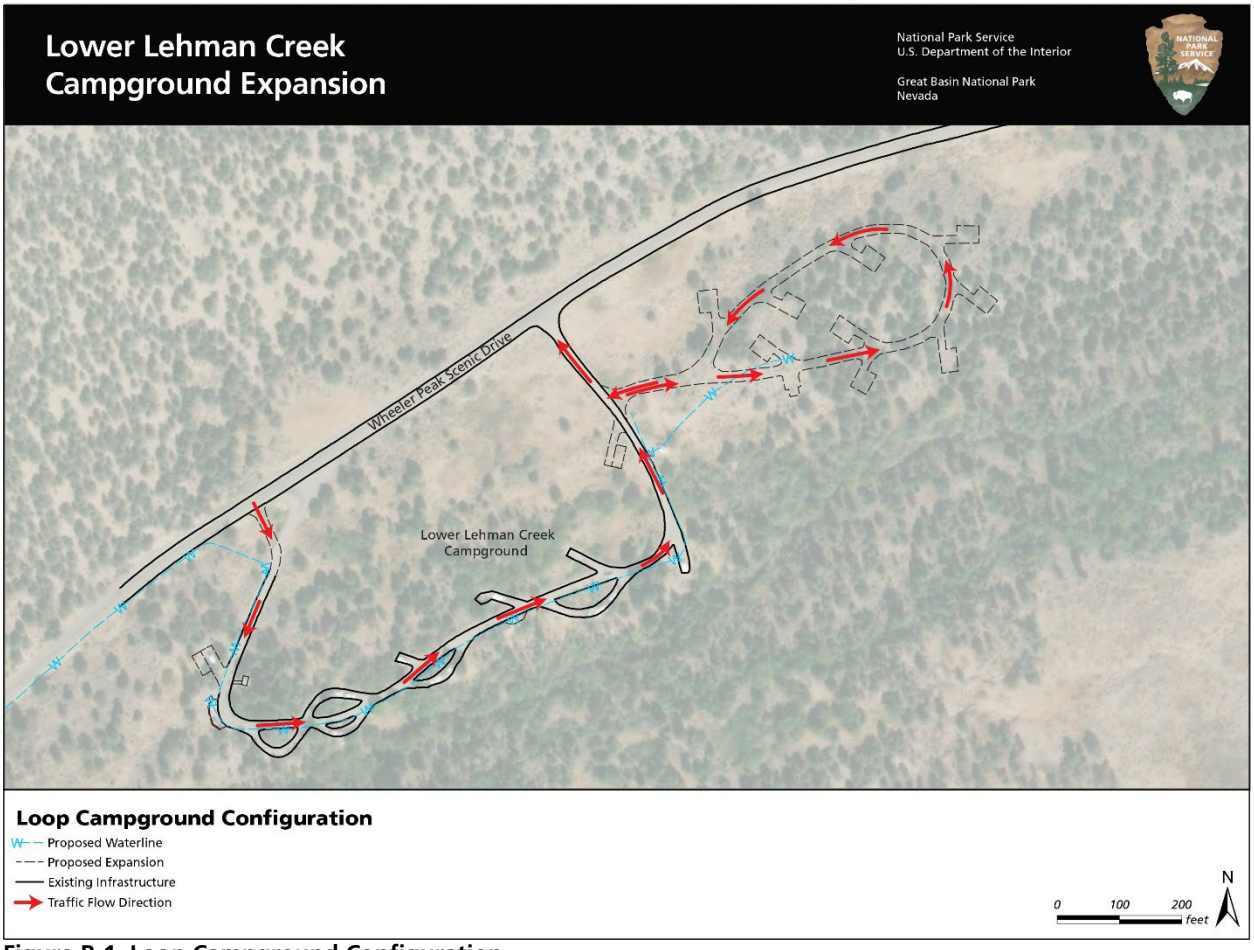

Figure B-1. Loop Campground Configuration

Clockwise S-Shaped Road Configuration

The park considered a campground layout with a one-way S-shaped road where campers would enter from a new entrance from Wheeler Peak Scenic Drive (Figure B-2). This alternative would differ from Alternative 1 primarily in the direction of traffic flow (clockwise instead of counterclockwise as in Alternative 1). The total number of campsites remaining in the existing campground and the number of campsites proposed in the campground expansion would be the same as in Alternative 1. Accessibility improvements, waterline replacement, and rehabilitation of facilities such as campsites and the campground entrance would be the same as under Alternative 1. This configuration was dismissed because it would not provide any substantial benefits over Alternative 1 and would result in issues with traffic flow. Traffic flow issues would include potential conflicts with campers driving the wrong way on the one-way drive and potential issues with campers missing their campsite and exiting to Wheeler Peak Scenic Drive and then reentering the campground.

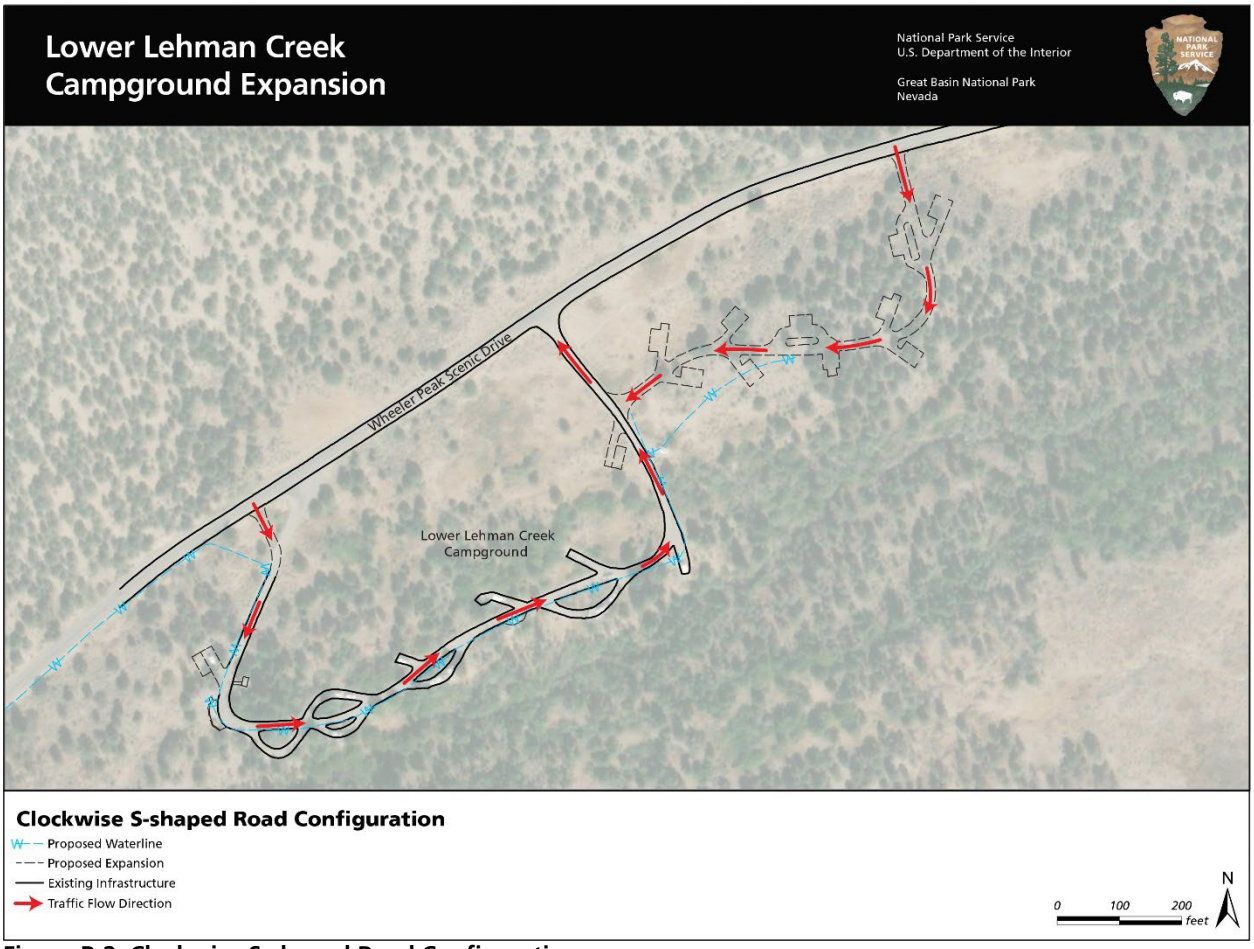

Figure B-2. Clockwise S-shaped Road Configuration

Appendix C: Issues Dismissed from Detailed Analysis

APPENDIX C: ISSUES DISMISSED FROM DETAILED ANALYSIS

The following issues were considered but dismissed from further analysis because they do not meet the following criteria from the NPS-NEPA Handbook (2015): (1) the environmental impacts associated with the issue are central to the proposal, (2) a detailed analysis of environmental impacts related to the issue was necessary to make a reasoned choice between alternatives, (3) the environmental impacts associated with the issue are a point of contention, and (4) potentially significant impacts on resources are associated with the issue. Additional topics dismissed included air quality, soils, geological features, human health and safety, socioeconomics, soundscapes, water resources, and wilderness. These topics were assessed by the NPS interdisciplinary team in an environmental screening form and were dismissed from detailed analysis in the EA because they did not meet the criteria described in (1) through (4) above and impacts would be significant.

Archeological Resources

Archeological investigations were conducted in the project area in 2021, including a cultural resource survey, evaluative testing of previously documented sites, and exploratory shovel testing in the area of potential effect (APE) (ERO Resources Corporation (ERO) 2022). No archeological sites eligible for listing in the NRHP were found, and results of the exploratory subsurface shovel testing confirmed that the project area is underlain by glacial outwash alluvium. These deposits effectively preclude the potential for significant subsurface cultural deposits. Based on these results, the Lower Lehman Creek Campground project area does not have the potential for significant subsurface cultural deposits, and impacts on archeological resources are unlikely. Surface artifacts are known from within the APE, but as noted above, there is no potential for significant subsurface cultural deposits. Documented aspen tree dendroglyphs that meet the 50-year age criteria established by the NPS (1998) would be avoided during anticipated vegetation removal.

If buried or previously unidentified archeological resources are discovered, or if any unanticipated effects on NRHP-eligible properties as a result of the proposed action are observed, the park archeologist would be notified immediately and all necessary steps in accordance with 36 Code of Federal Regulations 800.13(b) and mitigation measures described in Appendix A would be adhered to. Given the unlikely occurrence of substantial subsurface archeological resources and implementation of mitigation measures, adverse impacts on archeological resources would be avoided or minimized; therefore, this topic was dismissed from additional analysis in this EA.

Environmental Justice

Presidential Executive Order 12898, “General Actions to Address Environmental Justice in Minority Populations” requires all federal agencies to identify and address the disproportionately high and/or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. According to the U.S. Environmental Protection Agency (USEPA), environmental justice is the

> . . .fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies (USEPA 1998).

The NPS actively solicited public participation as part of the planning process and gave equal consideration to all input from persons regardless of age, race, income status, or other socioeconomic or demographic factors. Environmental justice was dismissed from additional analysis in this EA for the following reasons:

- The impacts associated with implementation of the preferred alternative would not disproportionately affect any minority or low-income population or community.
- Implementation of the preferred alternative would not result in any identified effects that would be specific to any minority or low-income community. Restrictions on travel or access to any area of the park lands that would result from the project would be equally applied to all visitors, regardless of race or socioeconomic standing.
- The preferred alternative would not result in destruction or disruption of community cohesion and economic vitality, displacement of public and private facilities and services, increased traffic congestion, and/or exclusion or separation of minority or low-income populations from the broader community.
- The environmental impacts associated with this topic are not central to the proposal and are not necessary to make a reasoned choice between alternatives.

Greenhouse Gases/Climate Change

The project would result in an increase in greenhouse gas (GHG) emissions, lasting for the approximately two-year construction period. GHG emissions would be produced from the combustion of fuels in heavy equipment. Construction workers commuting daily to and from the job sites in their personal vehicles and vehicles hauling construction materials to and from the job sites would also result in increased GHG air emissions. Although construction activities associated with implementation of the proposed action would contribute to GHG emissions, such emissions would be short-term, ending with construction completion. With the increase from 11 to 20 campsites, more visitors would use the campground, potentially resulting in an increase in long-term GHG emissions. Any effects of GHG emissions on climate change would not be discernible at a regional scale; therefore, this topic was dismissed from additional analysis in this EA.

Indian Trust Resources

Indian Trust Resources are legal obligations of the U.S. government to protect tribal lands, assets, resources, and/or treaty rights as granted under treaty or other legal instrument. No trust treaties exist in the park. The consideration of Indian Trust Resources (as specified in Director's

Order 12, Secretary's Order 3175, and other policies/regulations) do not apply to the project or any project in the park; therefore, this topic was dismissed from additional analysis in this EA.

Wildlife

Rehabilitation and expansion of the campground would have the potential to affect wildlife. The park supports a variety of wildlife species including many mammal, bird, amphibian, reptile, and invertebrate species due to the variety of habitats present. No federally threatened or endangered wildlife species occur in the park. Lehman Creek provides potential habitat for various vulnerable or species of concern including water shrew (*Sorex palustris*), Inyo shrew (*Sorex tennellus*), and Bonneville cutthroat trout (*Oncorchynchus clarkii utah*), although Bonneville cutthroat trout are not known to occur in this portion of the creek. Wildlife species of management concern potentially occurring in the project area are shown in Table C-1.

Table C-1. Wildlife species of management concern potentially occurring in the project area.

Common Name	Scientific Name
Mammals	
Merriam's shrew	*Sorex merriami*
Water shrew	*Sorex palustris*
Inyo shrew	*Sorex tennellus*
Pallid bat	*Antrozous pallidus*
Townsend's big-eared bat	*Corynorhinus townsendii*
Spotted bat	*Euderma maculatum*
Silver-haired bat	*Lasionycteris noctivagans*
Hoary bat	*Lasiurus cinereus*
Fringed myotis	*Myotis thysanodes*
Long-eared myotis	*Myotis evotis*
Long-legged myotis	*Myotis volans*
Ermine	*Mustela erminea*
Beaver	*Castor canadensis*
Sagebrush vole	*Lemmiscus curtatus*
Porcupine	*Erethizon dorsatum*
Yellow-bellied marmot	*Marmota flaviventris*
Birds	
Northern goshawk	*Accipiter gentilis*
Swainson's hawk	*Buteo swainsoni*
Ferruginous hawk	*Buteo regalis*
Peregrine falcon	*Falco peregrinus*
Three-toed woodpecker	*Picoides tridactylus*
Lewis's woodpecker	*Melanerpes lewis*
Flammulated owl	*Otus flammeolus*
Short-eared owl	*Asio flammeus*
Brewer's sparrow	*Spizella breweri*
Sage sparrow	*Amphispiza belli*
Sage thrasher	*Oreoscoptes montanus*
Pinyon jay	*Gymnorhinus cyanocephalus*
Macgillivray's warbler	*Oporornis tolmiei*
Yellow warbler	*Dendroica petechia*
Reptiles	
Ringneck snake	*Diadophis punctatus*

Individual reptiles and small mammals could be crushed or buried during earthmoving and construction activities, and others would disperse into the adjacent habitat, causing competitive stress. When construction is complete, wildlife is expected to return to the area. Permanent and short-term loss of habitat would be up to 2.45 acres as described in *Vegetation* and would affect less than 0.01 percent of the total amount of wildlife habitat available in the park. No disturbance

to Lehman Creek or wetlands would occur. Project activities would result in short-term disturbances to wildlife due to human presence and noise generation from equipment that may displace some wildlife during construction.

Mitigation measures, such as timing restrictions for vegetation clearing to avoid the migratory bird breeding season, would be implemented to minimize impacts on migratory birds and other wildlife as described in Appendix A. Temporarily disturbed areas would be revegetated following construction. Removal and restoration of campsite #7 would increase wetland habitat by about 0.02 acre. No new impacts on wildlife are expected under the no action alternative. Because direct impacts on wildlife would be limited to the construction period and habitat loss would be negligible given the large amounts of similar habitat in the park, this topic was dismissed from detailed analysis in this EA.

References

National Park Service (NPS). Revised 1998. National Register Bulletin No. 15. U.S. Department of the Interior.

As the nation's principal conservation agency, the Department of the Interior has responsibilities for most of our nationally owned public lands and natural resources. This includes fostering wise use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historic places, and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people. The department also promotes the goals of the Take Pride in America campaign by encouraging stewardship and citizen responsibility for American Indian reservation communities and for people who live in island territories under US administration.

NPS GRBA 148/179607 March 2022