



Fall River Entrance Improvements Environmental Assessment

June 2018



Fall River Entrance at Current Location, 2008



Entrance Kiosk, 2017



Fall River Entrance, 1953



Historic Entrance at Horseshoe Park, 1920



Mission 66 Style Kiosks, 1960

PUBLIC COMMENT

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ACRONYMS AND ABBREVIATIONS

ABA	Architectural Barriers Act
CCC	Civilian Conservation Corps
DO	National Park Service Director's Order
ft	feet
MBTA	Migratory Bird Treaty Act
NPS	National Park Service
NRHP	National Register of Historic Places
sq ft	square feet
SWCA	SWCA Environmental Consultants
USFWS	U.S. Fish and Wildlife Service

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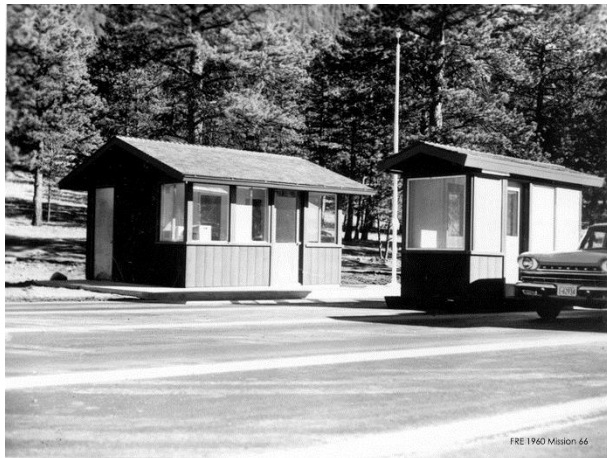
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CHAPTER 1 PURPOSE AND NEED

1.1 Introduction

Rocky Mountain National Park is considering options for improving the Fall River Entrance Station Area, one of two major entrance stations on the east side of the park (the project). The entrance station is located on U.S. Highway 34, just inside the park boundary. The current station was constructed in the 1960s as part of the National Park Service (NPS) Mission 66 Program enhancements and is within the Fall River Entrance Historic District, which is listed in the National Register of Historic Places (NRHP). The main access road, Fall River Road (U.S. Highway 34), contributes to the historic district and is individually listed in the NRHP.

Originally designed for seasonal (summer only) operation nearly 60 years ago, the once adequate facilities at the Fall River Entrance Station no longer meet the safety or operational needs of the park. Due to increasing visitation and traffic congestion at the entrance and related impacts on visitors and neighboring businesses, staff and visitor safety issues, as well as other operational concerns, the park is considering potential alternatives for improving this entrance and updating systems and facilities for better operations, improved safety, and more convenient access for visitors.



Fall River Entrance Station Area in 1960.
Source: NPS, 1960.



Fall River Entrance Station Area, Present Day.
Source: SWCA, 2017.

The range of alternatives evaluated in this environmental assessment includes a no-action alternative and three action alternatives. The action alternatives include keeping the entrance station at its current location, rehabilitating and adding on to the existing office buildings and replacing one entry kiosk with a new entry kiosk that meets federal accessibility standards; adding a fast pass lane, keeping the entrance in the current location and replacing all buildings (entry kiosks and office building) with newly constructed buildings; or moving the entrance approximately 160 feet (ft) to the west on the Fall River Road (U.S. Highway 34) with new buildings constructed in that location.

Figure 1 shows the project location in the Rocky Mountain National Park vicinity. Figure 2 depicts a closer view of the location of alternatives, and Figure 3 details the existing conditions in the area.

PURPOSE AND NEED

National Park Service
U.S. Department of the Interior

Rocky Mountain National Park
Colorado



Figure 1. Vicinity of Fall River Entrance Station Area in Rocky Mountain National Park

PURPOSE AND NEED

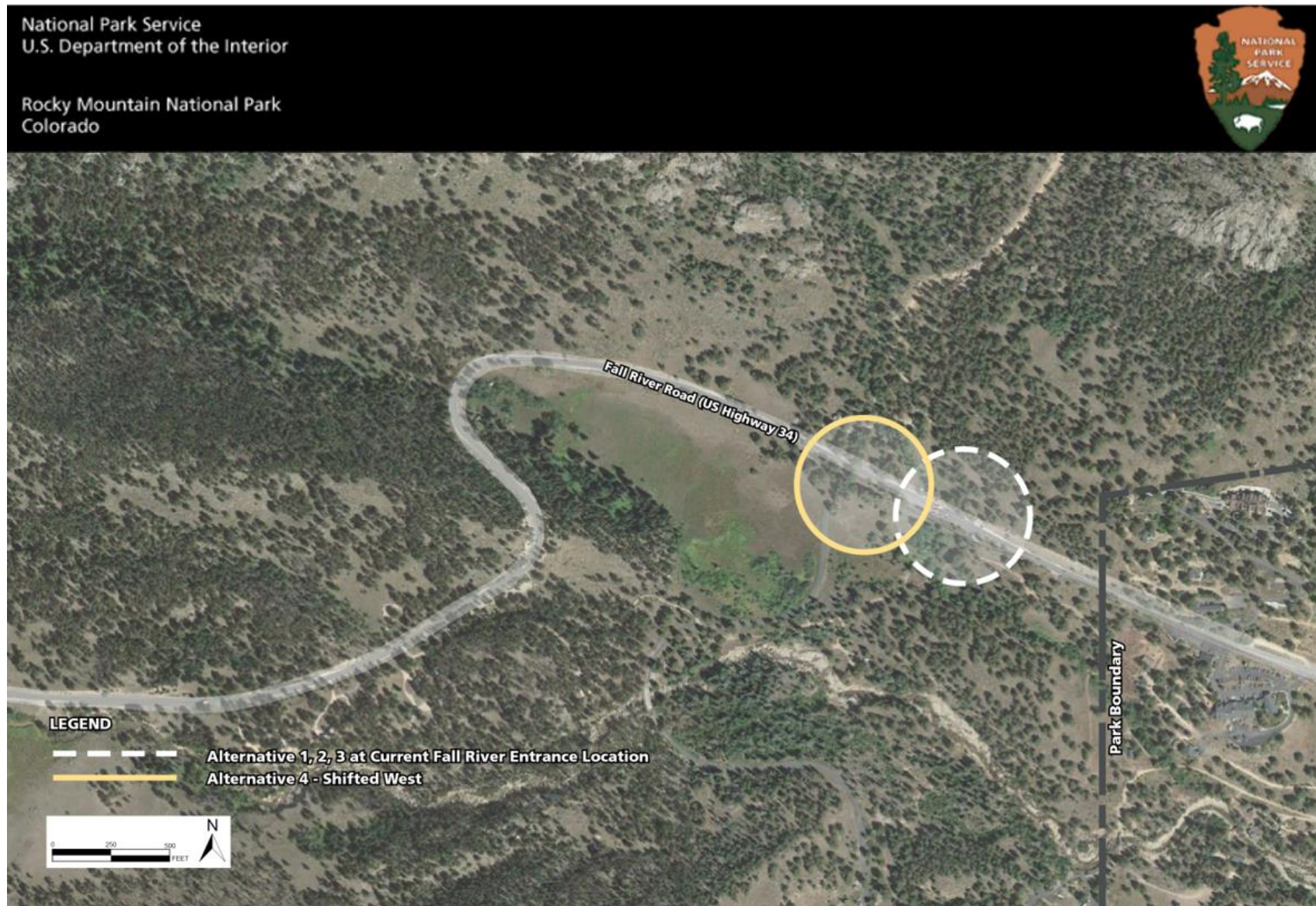


Figure 2. Fall River Entrance Improvements Project Location Map

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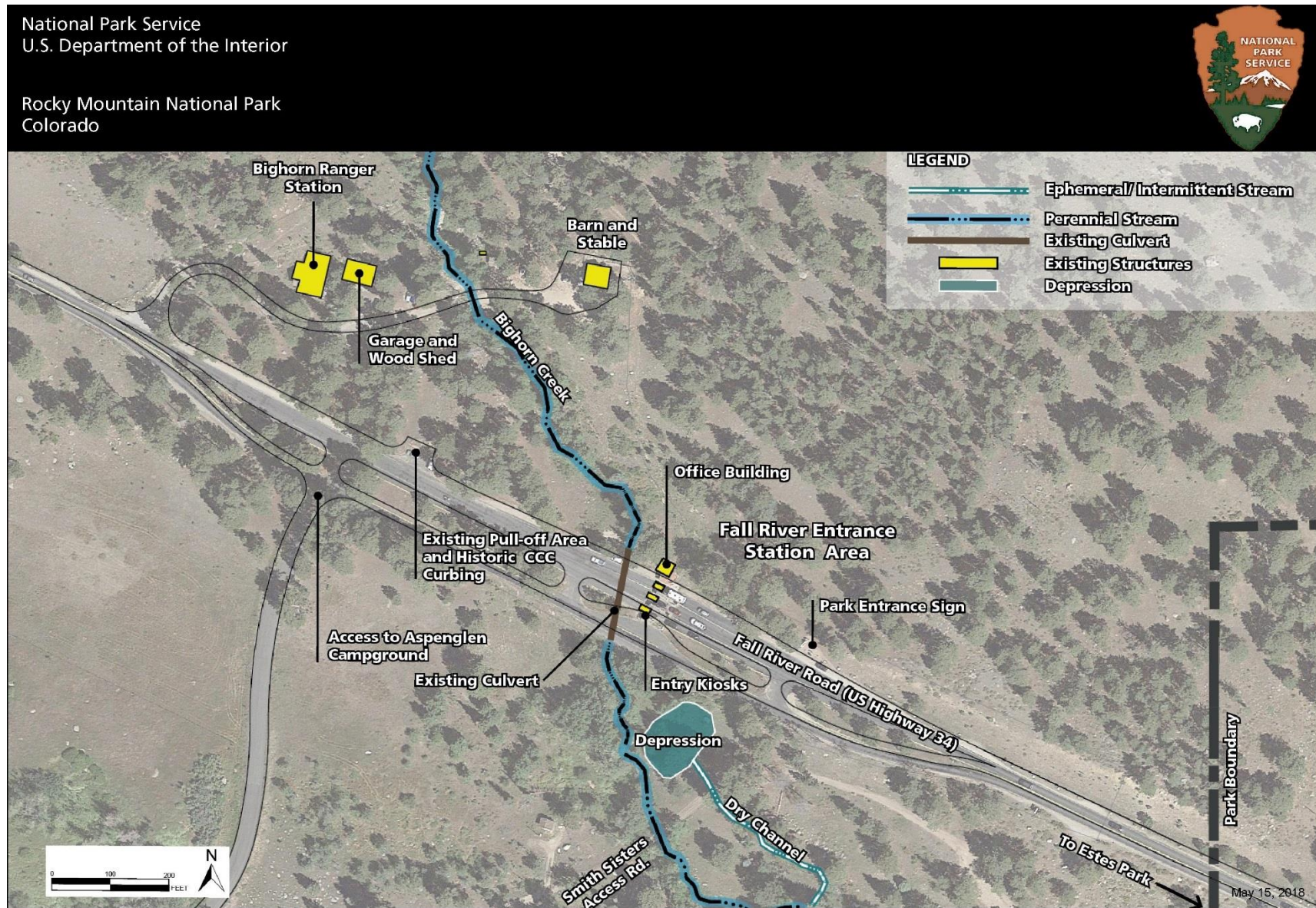


Figure 3. Fall River Entrance Improvements Project Existing Conditions / No-Action Alternative

1.2 Need for the Action

The project is needed to address operational issues related to the current Fall River Entrance Station Area configuration and buildings that were constructed in the 1960s, during a time when the number of visitors was nearly one-third of what it is today. Improvements are needed at the Fall River Entrance Station Area to reduce traffic congestion, improve visitor access and convenience, and provide a safe and efficient work space for park employees. The current entrance facilities (entry kiosks, office building, lane configurations, and other existing features) are almost 60 years old and no longer meet the safety or operational needs of the park. In 1960, the park had 1,532,500 annual visitors. By 2017, annual visitation had nearly tripled, to 4,437,215. The increasing levels of overall park visitation, along with increased use of the Fall River Entrance Station Area over time, have resulted in long lines of vehicles waiting to enter the park. On occasion during the peak summer period, the entrance line extends over a mile east from the entry kiosks, stretching outside the park boundary. More frequently during the summer and fall seasons, the entrance back-up is around 0.25-mile-long, resulting in wait times of approximately 20–30 minutes.

It is anticipated that park visitation and corresponding use of the Fall River Entrance Station Area will continue to increase in the coming years given the population growth occurring on the Colorado Front Range. The entrance facilities need to be improved to better serve the additional visitors. In addition, modern ventilation systems inside the entry kiosks and traffic calming devices outside the entry kiosks need to be installed to improve the health and safety of staff working in those locations. Building and mechanical systems need updates to meet modern code requirements and federal accessibility standards (see sidebar for discussion of accessibility standards).

Accessibility refers to the design of products, devices, services, or environments for people with disabilities. The NPS is required to comply with the federal Architectural Barriers Act (ABA) accessibility standards for facility and site designs, as well as federal standards for Outdoor Developed Areas and Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way. In addition to these federal requirements, NPS Management Policies (2006) and three NPS Director's Orders (DOs) address accessibility within the NPS system:

- DO 2 — Park Planning, Chapter 2 of Management Policies, Park System Planning, and Planner's Source Book
- DO 16A — Reasonable Accommodation for Applicants and Employees with Disabilities
- DO 42 — Accessibility for Visitors with Disabilities in NPS Programs and Services

NPS facility improvement projects also must comply with the International Building Code, which includes provisions related to accessibility. The NPS also strongly encourages Universal Design best practices, which call for sites and facilities to be designed for everyone's needs.

1.2.1 Key Project Objectives

There are several key objectives for this project including:

- Improve the visitor experience and visitor access to the park by enhancing the convenience and flow of entry.
- Enhance visitor and employee safety by more clearly delineating pedestrian access areas and providing better separation and protection of entry kiosks from traffic lanes, reducing the potential for collisions.

- Expedite pass-holding visitors and staff entry at the Fall River Entrance Station Area through the addition of the fast pass lane, which would also be used for emergency vehicle access.
- Improve employee working conditions with updated ventilation systems, work stations, and facilities that meet federal accessibility standards and provide accessible parking and facilities for employees with disabilities.
- Improve the efficiency, reliability, and sustainability of park operations with updated equipment and systems (Internet, communications, etc.) that support entrance station facilities.
- Improve fee collection operations including secure transaction handling, incorporating best available technology and ensuring that fee collections are effectively and efficiently conducted per Director's Order 22 Recreation Fees and NPS Management Policies (2006).
- Protect cultural and natural resources including those associated with the historic district to which the entrance station contributes, through design and construction that meet the Secretary of the Interior's Standards for the Treatment of Historic Properties.

1.3 Issues and Impact Topics Retained for Further Analysis

Issues were identified during internal and external scoping. Issues are problems, concerns, and opportunities regarding the proposed action and the alternatives being considered. The issues are organized by "impact topics," which are headings that represent the impacted resources associated with the issues that are analyzed in detail. As a general rule, issues were retained for consideration and discussed in detail if:

- the impacts associated with the issue are central to the proposal or of critical importance;
- a detailed analysis of impacts related to the issue is necessary to make a reasoned choice between alternatives;
- the impacts associated with the issue are a big point of contention among the public or other agencies; or
- there are potentially significant impacts on resources associated with the issue.

If none of the considerations above apply to an issue or impact topic, it was dismissed from detailed analysis. The issues and corresponding impact topics retained for analysis in this environmental assessment are presented in Table 1.

TABLE 1. ISSUES AND IMPACT TOPICS RETAINED FOR FURTHER ANALYSIS

Issues	Impact Topics Related to the Issues
The project (under all alternatives) is located within the NRHP-listed Fall River Entrance Historic District, and the main access road, Fall River Road (U.S. Highway 34), contributes to the historic district and is individually listed in the NRHP. A detailed analysis of impacts related to the issue is necessary to make a reasoned choice between alternatives, therefore this topic is carried forward for detailed analysis.	Historic Structures
Facilities are almost 60 years old and do not meet federal accessibility standards. The entry kiosks do not have modern ventilations systems with a positive air flow. Exhaust from idling vehicles is not prevented from entering the entry kiosks. Building and mechanical systems do not meet modern code requirements. Safety concerns exist from snow and ice buildup. The impacts associated with the issue are central to the proposal, therefore this topic is carried forward for detailed analysis.	Human Health and Safety
Increasing levels of overall park visitation, along with increased use of the Fall River Entrance over time, have resulted in long lines of vehicles waiting to enter the park. On occasion during the peak summer period, the entrance line extends over a mile east from the entry kiosks, stretching outside the park boundary. More frequently during the summer and fall seasons, the entrance back-up is around 0.25-mile-long, resulting in wait times of approximately 20–30 minutes. The impacts associated with the issue are central to the proposal, therefore this topic is carried forward for detailed analysis.	Visitor Use and Experience

1.4 Impact Topics Dismissed from Further Analysis

Table 2 provides a brief explanation for those impact topics that were dismissed from further analysis.

TABLE 2. IMPACT TOPICS DISMISSED FROM FURTHER ANALYSIS

Topic	Reason Dismissed
Special Status Plant Species	<p>Special status plant species include species considered vulnerable or imperiled in Colorado by the Colorado National Heritage Program. A biologist conducted a biological survey of flora and fauna from October 5–6, 2017 in the project area. The survey included a search for one special status plant species with a potential to occur within the project area: monkey flower (<i>Mimulus gemmiparus</i>).</p> <p>Monkey flower is a species of concern due to its rare occurrence in the park. The Colorado Natural Heritage Program gives it a ranking of S1G1 which indicates it is also critically imperiled at both the state and global level. It is known to occur at elevations ranging from approximately 8,400 to 11,000 ft above sea level, which puts the project area near the lower range of this</p>

Topic	Reason Dismissed
	<p>species. The nearest known occurrences to the Fall River Entrance Station Area are in Endovalley where there are a few occurrences along the Fall River in sandy alluvium. It is unlikely that monkey flower would occur in the developed site where reconstruction of the new Fall River Entrance Station Area is to occur.</p> <p>No individuals or populations of this special status plant were observed, and habitat is limited or not present in the project area due to the disturbed nature of the existing park entrance. Surveys would be conducted for this species again prior to construction and any individuals found would be marked for avoidance or relocated.</p>
Federally Listed Threatened and Endangered Species — Plants	<p>Three federally listed plant species have the potential to occur in Larimer County: Colorado butterfly plant (<i>Gaura neomexicana</i> ssp. <i>coloradensis</i>), Ute ladies'-tresses orchid (<i>Spiranthes diluvialis</i>), and western prairie fringed orchid (<i>Platanthera praeclara</i>). These species are not found in the area that would be disturbed under any of the action alternatives. The project is outside the habitat range of the Colorado butterfly plant, and Ute ladies'-tresses. Additionally, the project would result in no water depletions in the Fall River, which is a tributary of the South Platte River, and therefore would not impact the western prairie fringed orchid.</p>
Archeological Resources	<p>Surveys for archeological resources were conducted in and around the project area in 1999 (Brunswick 2000) and 2003 (Hanson 2003). According to archeological site files maintained by the Colorado Office of Archaeology and Historic Preservation and by Rocky Mountain National Park, two sites are located within the project area, 5LR651 and 5LR4492. A field visit conducted on December 13, 2017, to re-locate the sites identified 5LR4492 outside of the project area. The Gate House Site, 5LR651, is a historical trash scatter that is recommended not eligible for the NRHP. Although 5LR651 is located within the boundary of the Fall River Entrance Historic District and the overall project area, it is outside the anticipated area of disturbance and would not be impacted under any of the alternatives.</p> <p>Previously unidentified archeological resources may be impacted by ground-disturbing activities. There is potential for buried resources to be present because the area was heavily used historically. An archeological monitor would be on-site during ground-disturbing activities. If previously unidentified archeological resources are encountered, work would stop, and the cultural resource specialist would be contacted.</p>
General Vegetation	<p>There are three acres of general vegetation in the area that could potentially be disturbed within the project area. The majority of the area consists of mixed conifer forests, which are dominated by ponderosa pine (<i>Pinus ponderosa</i>), Douglas-fir (<i>Pseudotsuga menziesii</i>), and subalpine fir (<i>Abies lasiocarpa</i>) with stands of quaking aspen (<i>Populus tremuloides</i>) present in some areas. The understory is mostly made up of grasses including smooth brome (<i>Bromus inermis</i>) and western wheatgrass (<i>Pascopyrum smithii</i>) and some shrubs such as Rocky Mountain juniper (<i>Juniperus scopulorum</i>). Boulders and rocky soil are present in some areas, but no cliffs or talus slopes were observed. No old growth forests were documented within the project area.</p> <p>Because this vegetation is common throughout the park and because much of vegetation has already been disturbed, this topic is dismissed from further analysis.</p>

Topic	Reason Dismissed
Wildlife — Migratory Bird Species	<p>Noise disturbance from construction activities would cause some birds to reduce their use of habitat during construction and might cause nest abandonment if nests are in close proximity to construction activities. Noise from heavy equipment could invoke a startle response or cause short-term modifications of behaviors. The increased energy expended when fleeing is especially detrimental to birds during sensitive times of year, such as breeding, and if experienced repeatedly could ultimately decrease individual fitness. The distance at which the disturbance effect would abate is dependent on the tolerance levels of a species and individuals within a species. However, similar habitat is readily available outside of the project area and most species would be expected to return to the area following construction activities.</p> <p>Based on the results of the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation query, the following USFWS-designated Birds of Conservation Concern have the potential to nest in the project area, based on habitat requirements: bald eagle (<i>Haliaeetus leucocephalus</i>), burrowing owl (<i>Athene cunicularia</i>), Lewis' woodpecker (<i>Melanerpes lewis</i>), mountain plover (<i>Charadrius montanus</i>), olive-sided flycatcher (<i>Contopus cooperi</i>), pinyon jay (<i>Gymnorhinus cyanocephalus</i>), Virginia's warbler (<i>Leiothlypis virginiae</i>), and willow flycatcher (<i>Empidonax traillii</i>). Bald eagle and burrowing owl nests have not been documented in the project vicinity and are unlikely to be present during construction. Lewis' woodpecker, mountain plover, olive-sided flycatcher, pinyon jay, Virginia's warbler, and willow flycatcher all have potential to nest in trees or shrubs that may be cleared as part of the project.</p> <p>Mitigation measures described in Section 2.7.3 would reduce potential impacts on migratory bird species.</p> <p>There would be no measurable impacts on migratory bird populations from this project. The project is located in an area that has been previously disturbed by roads, buildings, and parking areas. Humans and vehicles are regularly present in the area, which increases the amount of noise that could be experienced by migratory birds. There are large areas of undisturbed habitat adjacent to the project area that provide areas for birds to relocate to during construction.</p>
Federally Listed Threatened and Endangered Species —Wildlife	<p>An official federal species list (consultation code 06E23000-2017-SLI-0053) was obtained from the USFWS Information for Planning and Conservation website on August 14, 2017. The list identified nine threatened, endangered, or proposed threatened species with the potential to occur within and no critical habitat within the proposed project area: Canada lynx (<i>Lynx canadensis</i>), Preble's meadow jumping mouse (<i>Zapus hudsonius preblei</i>), Mexican spotted owl (<i>Strix occidentalis lucida</i>), North American wolverine (<i>Gulo gulo luscus</i>), least tern (<i>Sternula antillarum</i>), piping plover (<i>Charadrius melodus</i>), whooping crane (<i>Grus americana</i>), pallid sturgeon (<i>Scaphirhynchus albus</i>), and greenback cutthroat trout (<i>Oncorhynchus clarkii stomias</i>).</p> <p>No downstream depletions would occur in the Fall River, which is a tributary of the South Platte River, and therefore the least tern, piping plover, whooping crane, and pallid sturgeon would not be impacted. The area was surveyed in 2012 and no greenback cutthroat trout occur in the project area or downstream. The project is located outside of a lynx analysis unit, below 9,500 ft, and above 7,800 ft above sea level, and therefore would not impact the Canada lynx or wolverine respectively. Preble's meadow jumping mouse requires undisturbed grassland with riparian component that does not occur in the area.</p>

Topic	Reason Dismissed
	<p>This project may affect but is not likely to adversely affect the Mexican spotted owl (see Appendix A). The project area and adjacent forest are located within an area mapped as potentially suitable Mexican spotted owl habitat. Surveys for Mexican spotted owl were conducted in the park, including the project area, in 2007 and 2008. No Mexican spotted owl were detected in this area or in any of the potentially suitable habitat surveyed in the park. Noise impacts from the project would temporarily remove habitat from nesting and roosting in the year of construction. Foraging might also be impacted during the construction timeframe, but this is considered less likely since Mexican spotted owl primarily forage at night when work would not be occurring. Approximately 43 acres of habitat would be temporarily disturbed by noise during construction at the project location and construction staging areas (shown in Figure 7). This represent 0.24% of the 17,952 acres of potentially suitable habitat identified in the park, leaving the majority of habitat available and suitable should Mexican spotted owl migrate into the park.</p>
Wetlands and Water Quality	<p>Bighorn Creek, a perennial tributary of the Fall River, runs through the project area, crossing Fall River Road (U.S. Highway 34) in a metal culvert near the park entrance. The bankfull width of Bighorn Creek ranges from 3 to 10 ft in the area adjacent to the project.</p> <p>A survey was completed in fall 2017. Two palustrine emergent wetlands associated with Bighorn Creek were delineated north of Fall River Road (U.S. Highway 34). Wetland 1 is approximately 225 square feet (sq ft) and located 530 ft northwest of the existing park entrance. Wetland 2 is approximately 185 sq ft and located 175 ft northwest of the existing park entrance. Both wetlands are located outside of the construction limits for any project alternatives and would not be impacted by construction or operation.</p> <p>Bighorn Creek is also considered a riverine wetland under NPS Procedural Manual 77-1. The Bighorn Creek culvert that extends 137 ft under Fall River Road (U.S. Highway 34) in the entrance area is in poor condition. Sections of the corrugated metal pipe are rusting, and the wing walls are failing.</p> <p>Anticipated short-term impacts on the water quality from project activities would be reduced through the use of best management practices that include conducting work during drier months, the use of silt fencing to minimize sediment disturbance, and limiting the amount of time that heavy equipment is in the stream. There would be no long-term impacts. A dewatering and sediment control plan would be in place to ensure no long-term impacts on the creek. No fish exist within Bighorn Creek and therefore no impacts to fish would occur.</p> <p>Consultation with NPS Water Resources Division staff during development of the environmental assessment confirmed that the proposed culvert replacement for Bighorn Creek qualifies as an "Excepted Action" under Section 4.2.1.7 of NPS Procedural Manual 77-1: Wetland Protection (Maintenance, repair or renovation of currently serviceable facilities or structures). Requirements for preparation of a Wetland Statement of Findings and for wetland compensation are therefore waived.</p>
Floodplains	<p>Consultation with NPS Water Resources Division staff during a site assessment in the development of the environmental assessment confirmed that, while the proposed culvert replacement for Bighorn Creek is within the regulatory floodplain of the creek, there is little likelihood that there would be any associated risk to human safety, capital investment, or increased impacts on</p>

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Topic	Reason Dismissed
	natural and beneficial floodplain values. Therefore, a Floodplain Statement of Findings is not required. This conclusion was based on site characteristics including hydrology, history of flooding, channel and floodplain morphology, and local topography. Following NPS Procedural Manual 77-2: Floodplain Management, the regulatory floodplain for this proposed action is the 1% annual chance floodplain, also referred to as the Base Floodplain or the 100-year flood.
Cultural Ethnographic Resources, Sacred Sites, and Indian Trust Resources	Based on consultation with American Indian tribes traditionally associated with the park and according to previous studies, no ethnographic resources or sacred sites have been identified in the project area. No American Indian trust resources are in the park. Therefore, these topics were dismissed.
Natural Soundscapes	The project site is in a developed area with a busy roadway and entrance station. Typical sounds here include human-caused sounds like vehicle engines, radios, horns, and voices, and natural sounds like wind, rain, and bird calls. Sound levels have not been measured at the site. However, ordinary sound levels after construction would not be expected to change from those that currently exist in the entrance area. It is estimated the project construction period would occur during a single year from approximately April to November. Noise from construction-related activities such as truck traffic and equipment operation would be expected to temporarily elevate sound levels and add new sounds to the environment, but this would be temporary. However, conditions such as weather or other unforeseen circumstances may extend the construction into a second year. Construction likely would start early in the year and be completed by the fall before winter weather conditions. Because acoustic conditions after construction are not expected to change and because noise from construction is temporary and would be part of an environment already dominated by human-caused sounds, this topic is dismissed from further assessment.
Lightscares	While new lighting would be installed under the action alternatives, the lighting would follow NPS fully sustainable lighting principles. Lighting would be used only where and when needed; it would be shielded and directed downward; and it would use lamps with no more than 3000K color temperature and minimum brightness necessary for the area tasks. With these mitigation measures, lighting impacts are expected to be similar to or improved from current conditions.
Environmental Justice and Socioeconomic Minority and Low Income Populations	Estes Park, located near the Fall River Entrance Station Area, is a community that includes minority and low-income populations. However, environmental justice was dismissed as an impact topic because no actions in the alternatives would have disproportionately high health or environmental impacts on these populations or communities.

CHAPTER 2 ALTERNATIVES

The four alternatives, a no-action alternative and three action alternatives, analyzed in this environmental assessment are described in detail in this chapter. Elements that are common to all alternatives, as well as alternatives and elements that have been considered and dismissed, are also described.

2.1 Elements Common to All Action Alternatives

The following elements and actions would be common under all action alternatives analyzed in this environmental assessment:

- Construction of any of the action alternatives would be expected to occur during a single year from approximately April to November. However, conditions, such as weather or other unforeseen circumstances may extend construction into a second year. Construction likely would start early in the year and be completed by the fall, before winter weather conditions.
- Integration of traffic calming devices in the entrance vicinity, which may include bollards and low walls around planting areas in advance of the entry kiosks, as well as recessed pavement markers, speed humps/tables, and/or other treatments.
- Positive flow ventilation system in the entry kiosks to reduce exposure to vehicle emissions for staff.
- Rehabilitated historic CCC pull-off area to allow for five visitor parking spaces.
- Ten standard parking spaces would be provided for employees, including one accessible space.
- Development of an interpretive wayside at Sheep Lakes overlook, which would depict the developmental history of the Fall River Entrance Station Area and include historic photographs of the entrance station.
- Four entrance lanes, with one being an automated fast pass lane. The fast pass gate would be used to expedite entrance into the park for visitors and park employees who are working by allowing pass holders to “swipe” their pass to allow for entry. The separate fast pass lane would also be used by emergency vehicles coming into the park and allow for the emergency vehicles to have priority. In addition, the fast pass lane would be used by park employees, which would limit the amount of staff time spent waiting in line to enter the park to perform their duties, resulting in increased productivity.
- Addition of accessible pedestrian paths between the office building and entry kiosks and connecting to a designated accessible parking space for employees in compliance with the Architectural Barriers Act (ABA).
- Entrance and exit lanes would be slightly reconfigured by widening, restriping and straightening, all within the project imprint, for improved traffic flow.
- Snow melt system would be incorporated between the kiosks.

- Preservation of as many character-defining trees as possible and planting of new trees (ponderosa pines). See Section 3.2.1.1.3 for a description of character-defining trees.
- The use of native plant materials for landscaping and revegetation where needed.
- Design to meet NPS sustainability standards, with the goal of meeting the Leadership in Energy and Environmental Design Silver level of certification.
- Removal and replacement of existing Bighorn Creek culvert. The new culvert would be designed for a 100-year flow. While final construction methods will be determined by NPS in coordination with the selected contractor, the culvert replacement likely would be constructed through a cut and cover method and would be scheduled during the dry season when creek flows are low. Management of creek flows during construction would likely occur by pumping around the construction zone with a sump pit at the upstream end and with a silt sock or similar measure to minimize sediment and turbidity at the downstream release point. The culvert replacement work would likely last one to two weeks, not including advance work related to site preparation, installing the bypass, and staging for construction. While the park intends to make every effort to maintain one lane open in each direction as much as possible during the construction period, temporary closures of all lanes of traffic may be necessary for brief, intermittent periods. Night work may be considered to minimize disruption to park access, and measures such as placing steel plates over work areas to facilitate access during non-work hours prior to full completion would be explored.
- Construction noise in the area. Note that construction noise would vary in length and intensity depending on the work activities underway during the construction period. At times, heavy trucks would be transporting materials to and from the project area and construction staging areas, generating motor and traffic related noise. Earthwork and grading trucks and loaders would operate in the early stages of construction, while paving machines and rollers would operate during later stages. When buildings are being installed, noise would include nail guns, hammering, and other typical building construction noises. Construction noise would be intermittent with greater intensity during certain periods and minimal noise in other periods.

2.2 Alternative 1 — No-Action

The no-action alternative would retain the existing entrance in its current configuration (see Figure 3). The entry kiosks, office building, and lane configurations would remain as they are currently. With the exception of routine maintenance activities, no major improvements would occur. The entry kiosks and office building would continue to pose the same operational challenges that occur today given the age of these buildings, such as poor energy efficiency, lack of proper ventilation to minimize exhaust from vehicles, challenges related to meeting federal accessibility standards, and a lack of updated technology and systems. Issues associated with traffic congestion would continue.

2.3 Alternative 2 — Retain Fall River Entrance at Current Location and Rehabilitate Existing Buildings

In addition to the elements listed in Section 2.1, Alternative 2 would include the following elements, also shown in Figure 4:

- The entrance station area would be retained in its current location.
- Two entry kiosks would be rehabilitated following the Secretary of the Interior's Standards for the Treatment of Historic Properties and a third entry kiosk would be removed and replaced with a fully accessible entry kiosk (ABA-compliant) for use by employees with disabilities.
- The office building would be rehabilitated following the Secretary of the Interior's Standards for the Treatment of Historic Properties and some minor renovations to interior spaces would occur. The existing restroom would be converted to meet federal accessibility standards, and an addition to the office building would be constructed to accommodate other necessary administrative functions. Accordingly, the building footprint would be altered and expanded.
- Approximately 14,000 sq ft of additional ground disturbance would occur outside of what is already disturbed to expand the roadway and parking areas.
- Approximately 17,500 sq ft of additional paving would occur outside of what is already paved.

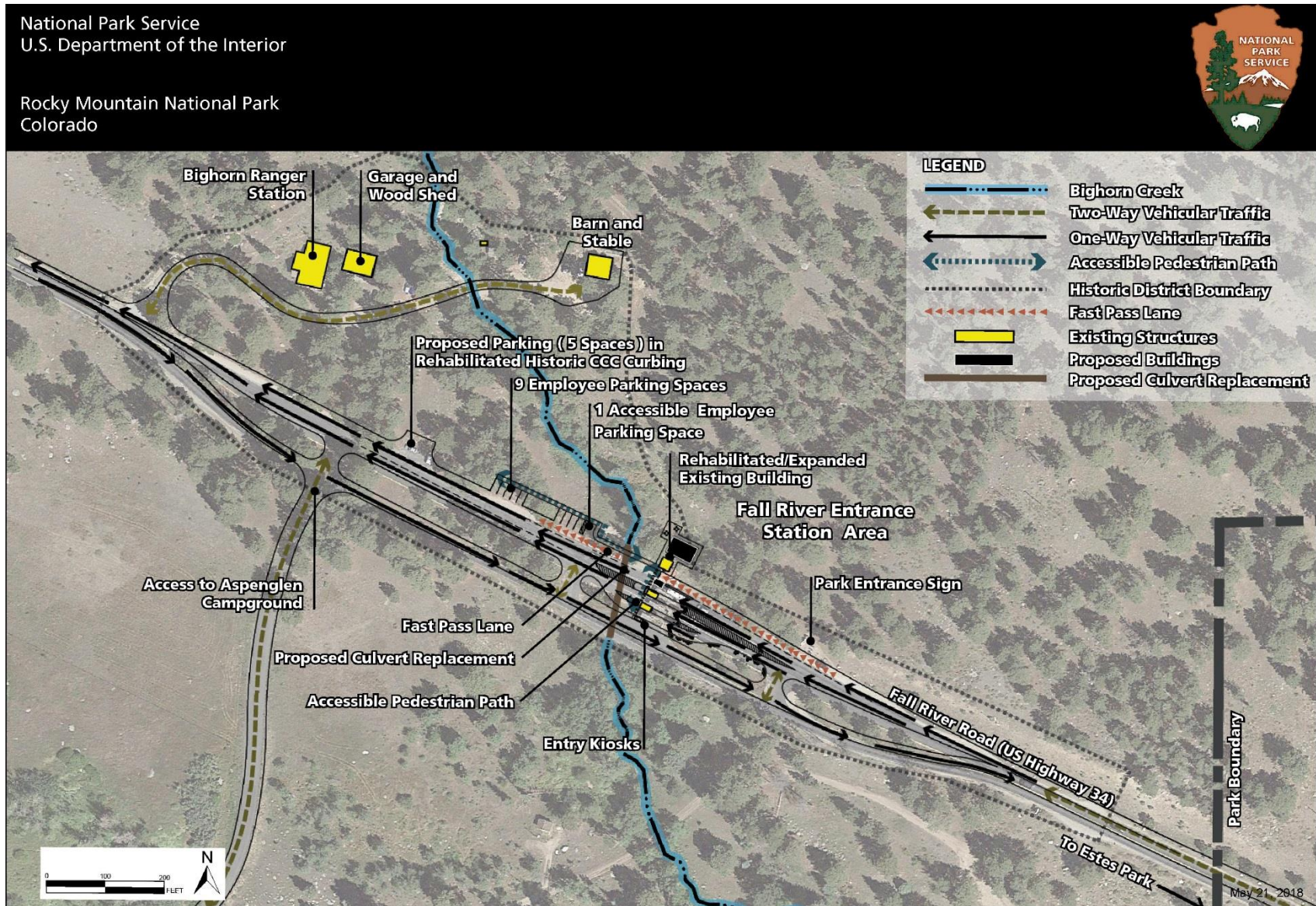


Figure 4. Alternative 2 — Retain Fall River Entrance Station Area at Current Location and Rehabilitate Existing Buildings

2.4 Alternative 3 — Retain Fall River Entrance at Current Location and Replace Existing Buildings with New Construction (Proposed Action and Preferred Alternative)

In addition to the elements listed in Section 2.1, Alternative 3 would include the following elements, also shown in Figure 5:

- The entrance station area would be retained in its current location.
- All buildings would be removed and replaced with newly constructed buildings that would comply with federal accessibility standards and code requirements.
- Approximately 16,000 sq ft of additional ground disturbance would occur outside of what is already disturbed.
- Approximately 19,500 sq ft of additional paving would occur outside of what is already paved.

Alternative 3 in the NPS preferred alternative.

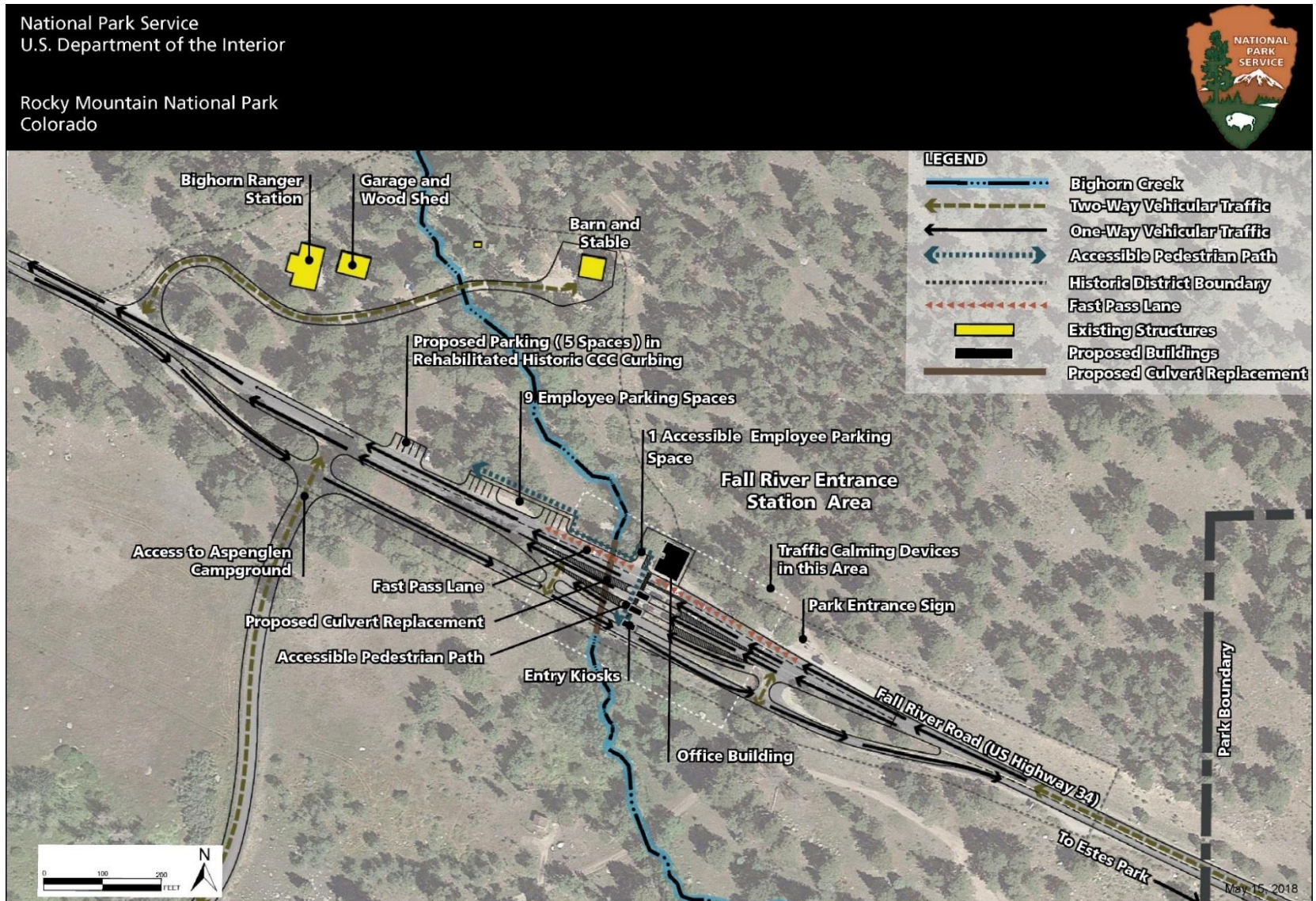


Figure 5. Alternative 3 — Retain Fall River Entrance Station Area at Current Location and Replace Existing Buildings with New Construction (Proposed Action and Preferred Alternative)

2.5 Alternative 4 — Move Fall River Entrance to the West and Construct New Buildings

Alternative 4 would be the same as Alternative 3, with the following exceptions:

- The entrance station area would be relocated further west about 160 ft from the current entrance station location, which would provide more stacking space for queuing visitor vehicles than any of the action alternatives.
- Approximately 25,000 sq ft of additional ground disturbance would occur outside of what is already disturbed.
- Approximately 17,700 sq ft of additional paving would occur outside of what is already paved.

This alternative is shown in Figure 6.

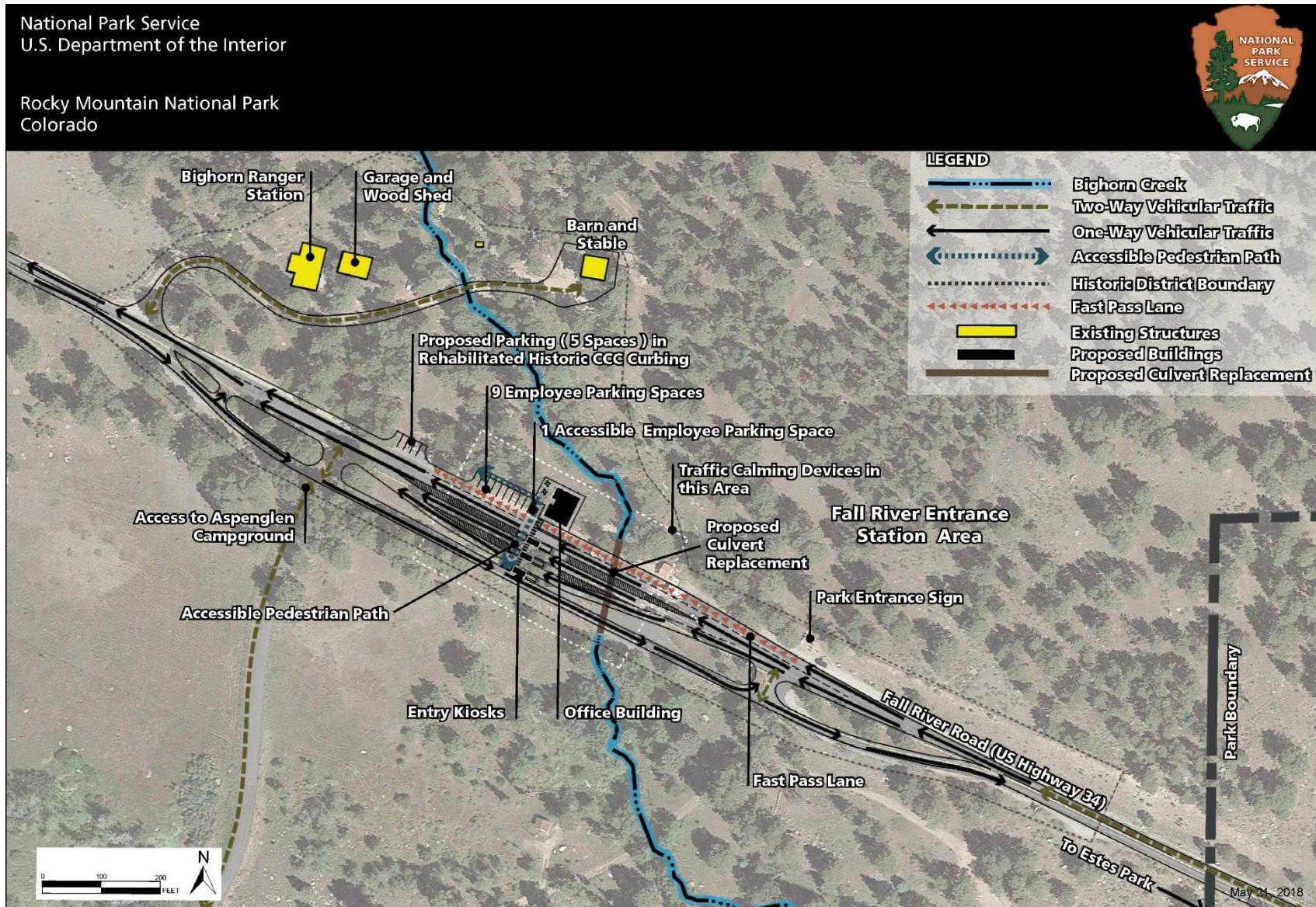


Figure 6. Alternative 4 — Move Fall River Entrance Station Area to the West and Construction New Buildings

2.6 Construction Activities Anticipated for the Action Alternatives

2.6.1 Access during Construction

To access the park through the Fall River Entrance Station Area during construction, the entrance would be set up with an inbound lane for use by NPS employees, park passholders, and emergency vehicles via a mobile entry kiosk and supporting equipment. The contractor would be required to make every effort to keep one inbound lane and one outbound lane open during construction. However, there may be brief, temporary closures generally lasting less than 30 minutes, but on occasion lasting several hours.

Non-passholders could use the Beaver Meadows Entrance to the park. A turn-around area would be provided at the Fall River Entrance Station Area so that non-passholders could be directed to nearby areas to purchase a NPS/park pass. Visitors would be able to purchase passes at locations such as the Fall River Visitor Center and the Beaver Meadows Visitor Center. A ranger would be on-hand to support the process of passholder entry to the park at the entrance under construction. In addition, the park intends to install temporary signs in Estes Park and in advance of the entrance station to alert incoming visitors of the change in fee collection procedures during construction and any temporary closures. The park also would provide public outreach and notification through various media, the park newsletter, and other means.



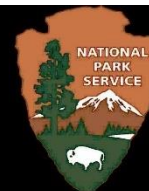
Mobile entry kiosk in use in the Bear Lake Corridor during Bear Lake Road restrictions. This is similar to the type of entry kiosk that may be used for access during construction. Source: NPS, 2017.

2.6.2 Staging Locations for Equipment and Materials during Construction

Construction staging is customary for a project of this scope, and would involve storage and parking of construction equipment, materials, and vehicles on paved and hardened surfaces in already developed areas of the park during the construction period. Truck deliveries/transport to and from these areas would occur during construction as well. Two potential locations inside the park have been identified for construction staging use: the Bighorn Ranger Station operational area and the Sheep Lakes pull-off in the Horseshoe Park area. These are shown in Figure 7.

National Park Service
U.S. Department of the Interior

Rocky Mountain National Park
Colorado



Proposed Construction Staging Area



Sheep Lakes Staging Area



Bighorn Ranger Station Staging Area

Figure 7. Location of Staging Areas

2.7 Mitigation Measures for All Action Alternatives

The following mitigation measures would be implemented to minimize the degree or severity of adverse impacts. These mitigation measures would be incorporated into the contract documents, as appropriate. In addition to these measures, also refer to the soil and vegetation protection measures (Appendix B).

2.7.1 General Measures

- The contractor would be required to make every effort to keep one inbound lane and one outbound lane open during construction. However, there may be brief, temporary closures generally lasting less than 30 minutes, but on occasion lasting several hours. No holiday work would be allowed. No weekend work would be permitted without approval from the Contracting Officer.
- The construction area limits would be clearly defined, fenced, flagged, or otherwise delineated prior to beginning ground-disturbing activities to keep ground disturbance to a minimum. Equipment would be stored and staged on hardened surfaces. This measure is intended to reduce ground disturbance.
- All contractor employees and subcontractors would attend an orientation session(s) regarding park regulations focused on minimizing impacts on resources, human health, and safety. Construction workers and supervisors would be informed about the special sensitivity of park values, regulations, and appropriate housekeeping.
- All contractor employees and subcontractors would read and be familiar with the stormwater pollution prevention plan, which would address spill prevention and response protocols for the project. This measure is intended to reduce potential impacts from spills and stormwater.
- All tools, equipment, barricades, signs, surplus materials, and rubbish would be removed from the project area work limits upon project completion. Construction debris would be hauled from the park to an appropriate disposal or recycling location. This measure is intended to reduce potential impacts on the visual landscape and impacts on natural resources.
- The park has developed a comprehensive list of soil and vegetation protection measures (see Appendix B). These measures relate to construction limits, equipment usage, clearing and grubbing, excavation, topsoil salvage, vegetation salvage, rough grading, finish grading, imported aggregate and soil, placement of topsoil, erosion control, seeding, and mulching and would also be incorporated into contract documents.

2.7.2 Water Resources

- To reduce impacts on waters, no fill would be placed within the Bighorn Creek drainage other than for installation of the new culvert.
- The project would be completed in such a way as to leave creek banks and channels in a stabilized condition. This would include installation of erosion control and revegetation of disturbed areas (see Appendix B).

- If necessary, a National Pollutant Discharge Elimination System Permit for Discharges from Construction Activities would be obtained prior to construction.
- A stormwater pollution prevention plan would be prepared prior to construction. The stormwater pollution prevention plan would be implemented during project construction. During earthwork, standard erosion- and sediment-control measures would be used, as appropriate. Stormwater runoff would be routed around areas of ground disturbance until these sites were revegetated. Within the construction area, sediment capture techniques such as silt fences, sediment curtains, sediment logs or wattles, and/or sediment traps would be employed as needed to contain sediment in the immediate work zone and prevent direct runoff to and degradation of Bighorn Creek. These measures would not be removed until all areas of ground disturbance are stabilized.
- All vehicle and equipment fueling would occur more than 100 ft from Bighorn Creek, to ensure that fuel spills would not enter the water.
- A spill prevention and response plan, which regulates the use of hazardous and toxic materials such as fuels and lubricants for construction equipment, would be prepared as part of the stormwater pollution prevention plan. All contractor employees and subcontractors would be familiar with this plan.
- The culvert replacement work would likely last one to two weeks, not including advance work related to site preparation, installing the bypass, and staging for construction. While the park intends to make every effort to maintain one lane open in each direction as much as possible during the construction period, temporary closures of all lanes of traffic may be necessary for brief, intermittent periods. Night work may be considered to minimize disruption to park access, and measures such as placing steel plates over work areas to facilitate access during non-work hours prior to full completion would be explored.

2.7.3 Wildlife and Species of Concern

- To reduce potential conflict with wildlife, construction personnel would be instructed on appropriate behavior in the presence of wildlife and on proper storage and handling of food, garbage, and other attractants.
- The following measures would be implemented to reduce potential impacts on migratory birds, bald eagles, and golden eagles:
 - If spring work (February 1 - April 30) is planned, the Contractor would notify the NPS at least one month prior to beginning work and the NPS would conduct appropriate surveys to detect presence of nesting protected bird species. A second survey for birds which arrive to breed later in the season would be conducted in April for project work that would occur between May 1 and August 1. If the area has been cleared by a survey, work can begin within a two-week period after the completion of the survey. Any work occurring prior to February 1 and after August 31 would only require a survey for eagle nests.
 - If nests of bald or golden eagles are discovered within 0.5 mile of the project area, the contractor may have to postpone work or modify work hours in the area until a repeat survey indicates no impacts on nesting eagles. If MBTA protected birds are found (that are not bald eagles or golden eagles) they would be evaluated by the NPS resource manager on an as needed basis and the Contractor may be required

to avoid cutting down trees with active nests. A buffer around active nests might also be required.

2.7.4 Vegetation

- To reduce the potential for their spread, exotic and invasive plant species would be monitored and treated with herbicide as needed before and after construction for a minimum of three years. Treatment of invasive plant species would be in accordance with the park's invasive exotic plant management plan in effect at that time.
- To reduce the potential for introduction of nonnative plants, all equipment entering the park would be cleaned and pressure washed to remove foreign soil, vegetation, and other materials that may contain nonnative seeds and vegetation. All equipment would be inspected by qualified park personnel before entering the park.
- All disturbed areas would be revegetated with native species as described in the park's soil and vegetation protection measures (see Appendix B). All disturbed areas would be restored as nearly as possible to preconstruction conditions shortly after construction activities are completed.
- Introduced seed or plant materials (even named native species) from commercial sources would not be used. If the park biologist determines additional plant material is needed, it would be collected from native seed and salvaged plant material from within the park.
- To reduce impacts on special status plants, surveys would be conducted prior to ground-disturbing activities. If special status plant species are found during these surveys, they would be marked for avoidance or relocated prior to construction.
- Trees and all native vegetation would be physically protected through the use of barriers to protect from damage by machinery while the work is in progress.

2.7.5 Wetlands

- To reduce impacts on wetlands of Bighorn Creek, heavy equipment would be avoided if at all possible. Heavy equipment used in wetlands would be placed on mats, or other measures would be taken to minimize soil and plant root disturbance.
- Work within Bighorn Creek would be scheduled during drier months of the year to reduce potential impacts on the stream.

2.7.6 Soils

- Soil conservation measures are described in the park's soil and vegetation protection measures (see Appendix B) and would be implemented for this project.

2.7.7 Cultural Resources

- A draft memorandum of agreement to resolve adverse effects on historic properties under Section 106 has been developed in consultation with the Colorado State Historic Preservation Office and American Indian tribes. The Advisory Council on Historic

Preservation was invited to participate in the process, but they declined (Appendix C). Mitigation measures included in the draft memorandum of agreement are (1) development of a historic context study on the Fall River Entrance Station Area, (2) completion of a revised NRHP nomination form for the historic district, (3) development of an interpretive wayside at the existing Sheep Lakes overlook, which would depict the developmental history of the Fall River Entrance Station Area and include historic photographs of the entrance station, and (4) rehabilitation of the historic parking area and road curbing built by the Civilian Conservation Corps (CCC) following the Secretary of the Interior's Standards for the Treatment of Historic Properties. These measures would be carried out in consultation with the state historic preservation office.

- Known archeological sites would be identified and flagged by an archeologist for avoidance. And all equipment and materials staging areas would avoid known archeological resources.
- An archaeological monitor would be on-site during ground disturbing activities. If previously unknown archeological resources are discovered during construction, all work in the immediate vicinity (600 ft) 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 NPS (U.S. Department of the Interior), the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers.
- 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.
- In the event that human remains are discovered during construction activities, all work on the project would stop and as required by law, the coroner would be notified first. The park archeologist would also be contacted immediately. All provisions outlined in the Native American Graves Protection and Repatriation Act (1990) would be followed.

2.7.8 Visitor Use and Experience

- To reduce impacts on visitors, signs, press releases, and other communication methods would be used to inform visitors about construction, closures, and traffic delays (see Section 2.6.1).

2.7.9 Air Quality and Soundscapes

- Dust generated by construction would be controlled as necessary by spraying water on the construction site, or other best management practices for dust control.
- All construction motor vehicles and equipment would be in good working order to prevent excessive or unusual noise, fumes, or smoke.
- To reduce noise and pollution emissions, construction equipment would not idle for extended periods of time. No unattended motors/engines would be permitted.

2.7.9.1 Public Health, Safety, and Park Operations

- Appropriate barriers and barricades would be used to clearly delineate work areas and provide for safe visitor and staff travel near construction areas.
- Visitors would not be allowed into construction zones.
- Trucks hauling debris and other loose materials would be covered and would maintain adequate freeboard to prevent spillage to paved surfaces.
- Emergency response protocols would be developed as part of an accident prevention plan for implementation during construction.
- Construction activities would be conducted in accordance with established safety protocols and construction would be completed in full compliance with Occupational Safety and Health Administration laws and regulations.
- Employees and construction crews would be required to park their vehicles in designated locations on hardened surfaces.
- Asbestos, lead paint, and other hazard materials testing would be conducted by a licensed technician prior to any demolition. A job hazard analysis would be developed to guide demolition and disposal of hazardous materials.
- All hazardous waste would be contained and disposed of at approved disposal sites in accordance with federal, state, and local laws.
- A traffic management plan would be submitted for review and approval prior to the commencement of work activities. This plan would address location of warning signs, type of signs, placement of flaggers, placement of cones/fencing and barricades, duration of anticipated delays, use of pilot cars, etc. This plan would address vehicle and pedestrian traffic within the construction zone.
- Spill containment kits would be required to be on-site at all times during any construction activities.

2.8 Alternatives and Elements Considered and Dismissed

The following alternatives and elements were considered for project implementation but dismissed from further analysis for the reasons described in Table 3.

TABLE 3. ALTERNATIVES AND ELEMENTS DISMISSED

Elements/Alternatives Dismissed	Reasons for Dismissal
Relocate the entrance station to the vicinity of Cascade Cottages	<p>Rocky Mountain National Park acquired the Cascade Cottages property in March 2017. Relocation of the Fall River Entrance to the vicinity of Cascade Cottages, approximately one mile west of the current entrance, was dismissed due to concerns related to technical infeasibility, as well as the potential level of environmental impact. This location is surrounded by steep topography near the Fall River corridor. Road widening and roadside grading to construct the entrance would require extensive erosion control and protection of the river watershed. Additionally, the curving road alignment on approach to this location would create challenges related to visibility and safety with visitor waiting queues backing up into the curves. This location, as well as the one below for the relocation to Horseshoe Park, would place the entrance station west of the Aspenglen Campground. This means visitors arriving from the east and going directly to Aspenglen Campground would not go through an entrance station, where they could receive important information during the open hours of the entrance station. In addition to not having a chance for face-to-face contact with park personnel, they would not receive publications such as the park brochure and newspaper. Neither would they be informed about emergency information, pet regulations, road restrictions or conditions, current weather conditions on Trail Ridge Road, etc.</p> <p>The potential future use of the Cascade Cottages area for other purposes and how these uses may or may not be compatible with the relocated entrance station were also concerns. Finally, the lack of sufficient infrastructure (power, communications, water, and other utilities) in the vicinity to support the relocated entrance station was also a concern. Some utility services would have to be extended long distances to reach the entrance, which would encumber the project with additional costs.</p>
Relocate the entrance station to Horseshoe Park, closer to Sheep Lakes	<p>Given the natural resources (bighorn sheep habitat and the surrounding meadow environment) in this vicinity, this alternative would have the potential to create too great of an environmental impact. This alternative would locate the entrance station west of the Aspenglen Campground, which would result in the same concerns as for the Cascade Cottages alternative above. Infrastructure and utility services would need to be extended to support the relocated entrance station, encumbering the project with additional costs. This alternative was dismissed because it would duplicate less environmentally damaging and less expensive alternatives.</p>
Install “iron ranger” entrance with automated entrance and payment system	<p>An automated entrance and payment system would not meet the need of improved visitor access and convenience because visitors would have to park and/or exit their vehicles to register and purchase passes. Director’s Order 22 Recreation Fees calls for the fee program to provide enhanced visitor experiences and emphasize customer service. Providing a traditional entrance station with rangers and staff on hand to greet and orient visitors is consistent with the Director’s Order and other NPS management policies.</p>

CHAPTER 3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Cumulative Impact Scenario

The Council on Environmental Quality regulations that implement the National Environmental Policy Act require assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions” (40 CFR 1508.7).

Cumulative impacts are considered for the no-action and action alternatives. Cumulative impacts are determined by combining the impacts of the actions included in the alternatives with other past, present, and reasonably foreseeable future actions. Therefore, it is necessary to identify other actions that could result in cumulative impacts.

Past and present actions within all analysis areas (defined in each section below) include hazardous tree removal and vegetation treatments. Reasonably foreseeable actions include rehabilitating the water and sewer system at the Aspenglen Campground and rehabilitating the water and sewer systems at the Fall River Entrance Station Area and Bighorn Ranger Station Area. Both actions would require ground disturbance, vegetation removal (including the removal of up to 25 character-defining ponderosa pine trees) and impacts on visitor use due to construction creating delays for accessing the park. Park personnel would attempt to complete these actions during the same timeframe as the Fall River Entrance Improvements Project to help reduce impacts on visitors.

The Central Federal Lands Highway Division, Colorado Department of Transportation, and the Town of Estes Park have recently completed an environmental assessment and finding of no significant impact for the Downtown Estes Loop Project. This project consists of the conversion of existing roadways from two-way to a 0.9-mile, one-way loop through downtown Estes Park along portions of Elkhorn Avenue, Moraine Avenue, and Riverside Drive. The project is intended to reduce congestion in the town. Park managers and the Colorado Department of Transportation would coordinate on the timing of construction for the Loop Project and the Fall River Entrance Improvements Project to ensure that they would not occur at the same time. Therefore, there would be no cumulative impact to any resources analyzed in this environmental assessment from the Loop Project.

3.2 Historic Structures

3.2.1 Affected Environment

The analysis area for historic structure resources consists of the Fall River Entrance Historic District (5LR1184), which is listed in the NRHP, as well as small areas outside the historic district that may be subject to indirect impacts from the proposed action (Figure 8). Fall River Road (U.S. Highway 34) contributes to the historic district and is individually listed in the NRHP.

Construction of Fall River Road (including the portion of U.S. Highway 34 from the eastern boundary of the park, through the Fall River Entrance Station Area, and up to the Alpine Visitor Center) began in 1913 and was completed in 1920. Development related to the Fall River Entrance Station Area was initiated soon thereafter in 1921, when a Rustic-style checking station was built at what was the eastern boundary of the park at the time. Expansions of the boundaries of the park led to the relocation of the entrance in 1926 and again in 1933–1934. This latter relocation coincided with a reconstruction of the eastern portion of Fall River Road. Increased visitation and New Deal work programs during the Great Depression resulted in the establishment of six CCC camps within the park. In 1935–1936, construction of the Rustic-style Bighorn Ranger Station Area adjacent to the Fall River Entrance Station Area was completed. This was one of the more notable achievements of the CCC work during this period, and significant attention was paid to the surrounding landscape and the preservation of its natural topography and vistas. CCC-era construction projects followed NPS architectural guidelines that focused on natural, handcrafted building materials that would allow buildings and structures to blend with their natural settings.



The design of the Fall River Entrance Station Area was a standard Mission 66 Program design implemented throughout the country at various national parks. This photo, from the Beaver Meadows Entrance of Rocky Mountain National Park, is an example of another entrance designed in this style. Source: Alcorn, W.B., 1967.

With the end of the CCC program in 1942, the NPS lacked support and funding for upkeep and maintenance of outdated infrastructure that no longer met visitor needs. In anticipation of the 50th anniversary of the NPS, the “Mission 66” program was funded in 1956 to modernize NPS facilities and improve visitor experience. The Fall River Entrance Station Area as it exists today was constructed under this program, as were the other two main entrances to the park. Though the Fall River Entrance Station Area is the only one of these three entrances that retains Mission 66 elements. The “modernized” architectural style of Mission 66 projects diverged from the Rustic style formerly characteristic of NPS architecture. In contrast to the log construction typical of Rustic-style architecture, the Mission 66 style used concrete, steel, glass, and prefabricated components that were readily available after World War II, were cheaper to obtain, and could be assembled easily and quickly. The entry kiosks and office building at the Fall River Entrance Station Area followed standard NPS designs used at parks across the country and at other locations within the park (i.e., the entry kiosks at Glacier Basin and Moraine Park Campgrounds). The standard Mission 66 designs for these smaller buildings were produced in-house by NPS architects working from typical plans, in contrast to Rocky Mountain National Park visitor centers that were also built as part of the Mission 66 initiative, but were designed by high-profile architectural firms on a site-specific basis. The Mission 66-era Fall River Entrance Station Area redevelopment included planting of numerous trees in 1962 to more seamlessly blend the entrance with the surrounding landscape. In addition, Fall River Road (U.S. Highway 34) was widened during this period to add another travel lane.

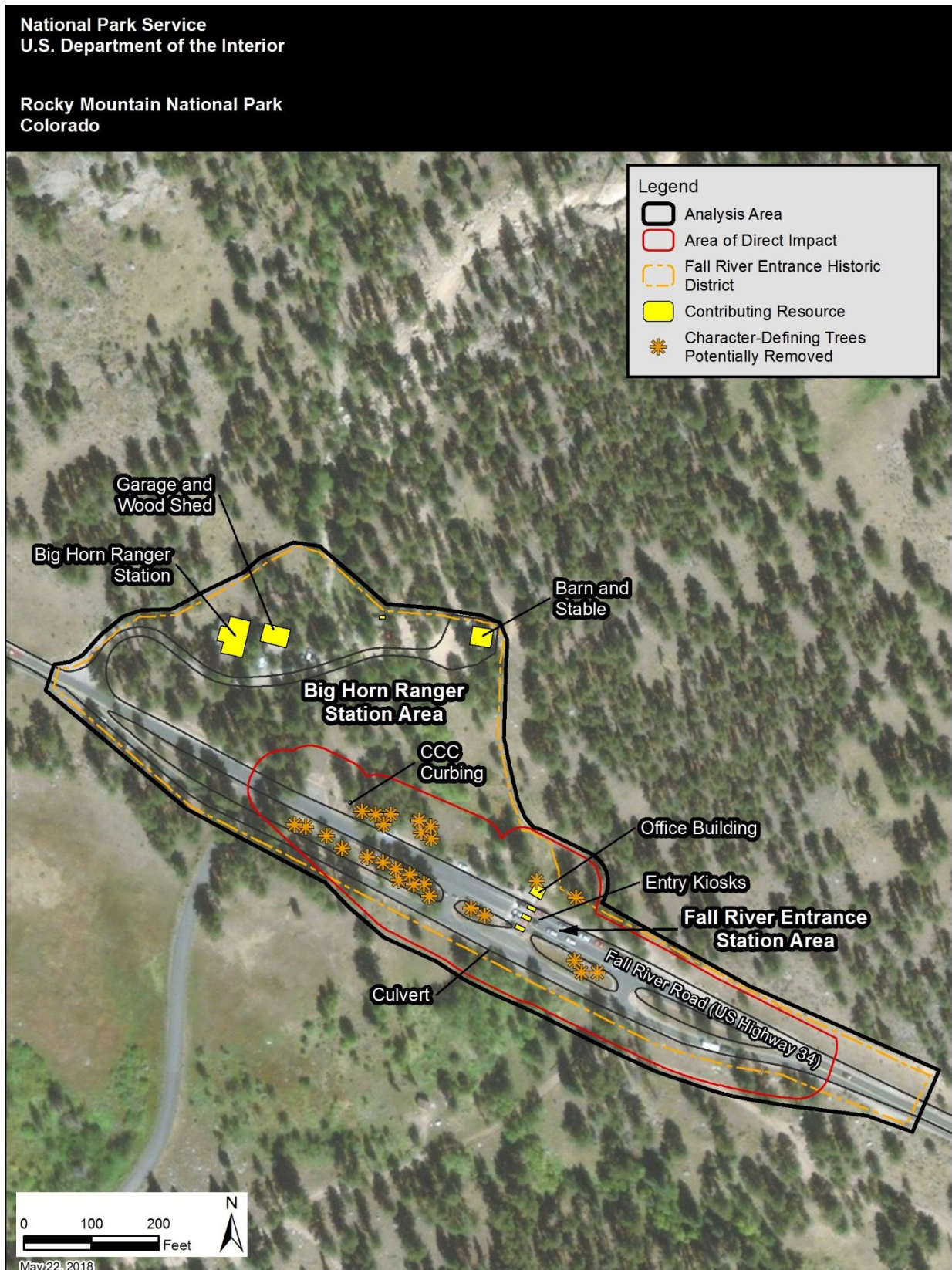


Figure 8. Historic Structure Resources Analysis Area and Approximate Location of Character-Defining Trees Potentially Removed in the Project Area

3.2.1.1 Fall River Entrance Historic District

The Fall River Entrance Historic District includes two distinct areas, the Fall River Entrance Station Area and the Bighorn Ranger Station Area (see Figure 8). Although geographically separate and constructed at different times, the spatial organization and use of the two areas are linked. The Fall River Entrance Historic District was originally listed in the NRHP in 1988 for its association with NPS Rustic architecture of the New Deal era. This 1988 nomination included four buildings located in the Bighorn Ranger Station Area. In 2018 the nomination was amended to include the Fall River Entrance Station Area, which was constructed during the Mission 66 period of development in the Park. The Fall River Entrance Historic District is significant under NRHP Criteria A and C for its association with the evolution of NPS planning and design theory from the 1930s New Deal period of investment to the far-reaching Mission 66 program undertaken between 1956 and 1966, and the specific attention given to entrance facilities by the NPS during this period in an effort to modernize amenities and facilitate day-use visitation. The period of significance for the historic district is 1935 to 1966.

The 7.89-acre historic district currently consists of eight buildings, three objects, and one road structure, as well as the natural landscape of the area and several small-scale features found within it (Higgins and Heavrin 2017). The small-scale features associated with the CCC improvements from the 1930s include elements such as curbing at a roadside pull-off area west of the entry kiosks. The components of the historic district are listed in Table 4 and are described in greater detail below.



Stone curbing at a roadside pull-off area west of the entry kiosks. This curbing is a feature associated with CCC improvements. Source: Otak, 2016.

TABLE 4. RESOURCES ASSOCIATED WITH THE FALL RIVER ENTRANCE HISTORIC DISTRICT

Resource	Building	Date	Type	Condition	1988 Status	Present Status
Fall River Entrance Station Area						
Checking Station (called office building in this document)	353	1960	Building	Extant	N/A	Contributing
Entry Kiosks (3)	669–671	1960	Buildings	Extant	N/A	Contributing
Flagpole	N/A	1960	Object	Extant	N/A	Contributing
U.S. 34/Fall River Road	N/A	1960*	Structure	Extant	N/A	Contributing
Entrance Sign	N/A	ca. 1995	Object	Extant	N/A	Noncontributing
Bighorn Ranger Station Area						
Bighorn Ranger Station	44	1935	Building	Extant	Contributing	Contributing
Garage and Wood Shed	169	1935	Building	Extant	Contributing	Contributing
Barn and Stable	168	1935	Building	Extant	Contributing	Contributing
Trailer	N/A	Unknown	Building	Demolished	Noncontributing	N/A
Flagpole	N/A	ca. 1940	Object	Extant	N/A	Contributing
Pump House	869	1983	Building	Extant	Noncontributing	Noncontributing
General						
Natural Landscape and Associated Small-scale Site Features	N/A	N/A	Site	Extant	N/A	Contributing

Source: Higgs and Heavrin (2017).

*While the corridor existed prior to this date, the dates used here are in reference to reconstruction of this discrete section of the corridor into its current configuration during the Mission 66 era.

3.2.1.1.1 Fall River Entrance Station Area

Resources within the Fall River Entrance Station Area that contribute to the NRHP eligibility of the historic district include four buildings—the office building and the three entry kiosks—and Fall River Road (U.S. Highway 34). As noted above, Fall River Road (U.S. Highway 34) is also listed in the NRHP individually. Further detail on the office building and the entry kiosks is provided next. Further detail on the individually listed Fall River Road (U.S. Highway 34) is provided in a later section below; certain features along Fall River Road (U.S. Highway 34) (e.g., CCC-era curbing)

contribute both to the historic district and the road, and these are described in the section on the road.

Checking Station. The existing checking station is a one-story, side-gabled frame building with a poured concrete foundation, aluminum framed windows and door, and a wood shake-clad roof (note, this station is referred to as the office building in this environmental assessment). This building serves as an office and provides a staff lavatory. A flagpole, also dating to the 1960 redevelopment, is located on the concrete pad adjacent to the office building. The flagpole is also a contributing element of the historic district.

Kiosks. A row of three entry kiosks serves three traffic lanes. The two middle entry kiosks were constructed on wood skids to allow them to be moved to accommodate wider loads and other heavy equipment, including snow plows. The third, southernmost entry kiosk has a poured concrete foundation and is placed within the median. All three entry kiosks feature the same Mission 66 architectural style and rectangular footprint, consistent with the style of the office building. The gabled roofs are clad with wood shakes, and T1-11 plywood siding is present along the bottom third of each building. All of the entry kiosks have entry doors on both the northeast and southwest sides. Fixed windows are located at both the front and rear of each kiosk so that traffic can be seen in both directions. The side windows of the entry kiosks are aluminum sliding windows to allow two lanes of traffic to be served from one booth if necessary. The entry kiosks have suffered damage over the years from being struck by large vehicles and have been repaired multiple times, which has resulted in minimal loss of their historic integrity. Safety devices in the form of three permanent concrete bollards were recently installed in front of each of the moveable entry kiosks to provide additional protection from vehicle traffic.



Overview of the Fall River Entrance Station Area, facing west. Source: SWCA, 2017.



Fall River Entrance kiosks, facing south-southeast. Source: SWCA, 2017.



Checking station (referred to as office building in this document), facing north-northwest. Source: SWCA, 2017.

3.2.1.1.2 Bighorn Ranger Station Area

The Bighorn Ranger Station Area is outside of the direct impact area for the proposed alternatives, but the developed road and parking areas in the vicinity have been identified as potential construction staging areas. The Bighorn Ranger Station Area overlooks the Fall River Entrance Station Area from the north-northwest and may therefore be subject to impacts to the integrity of feeling and setting from construction activities. For this reason, it is included in the analysis area for historic structure resources. The following is a brief description of the resources in this area that contribute to the NRHP eligibility of the historic district.

Bighorn Ranger Station. Located toward the western end of the Bighorn Ranger Station Area access road, the Bighorn Ranger Station was converted to an employee residence in 1947. It now serves as an office. It is in a grassy clearing among ponderosa pines and on a boulder-strewn hillside. Constructed in 1935, the building is a one-and-a-half-story, three-bay, cross-gabled, “T”-plan log dwelling. The building sits on an un-coursed fieldstone foundation that is punctuated by four two-light wood sash casement windows. There is a fieldstone pathway connecting the station and the garage and woodshed, and it extends into a terraced platform between the buildings. These features are consistent with the New Deal-era development of the site and are considered character-defining features of the site. A flagpole installed at the ranger station in 1940 is also a contributing element of the historic district.



Bighorn Ranger Station. Source: Otak, 2017.

Garage and Wood Shed. Constructed in 1935, the building was converted to a garage and office in 1946. The building is characterized by a one-story, single-pile form, situated on a poured concrete foundation. The side-gabled roof is clad with wood shakes and features exposed rafter tails. Log walls are set with double saddle notching at the corners. The façade (southwest) exhibits two single-leaf pedestrian entries toward the western end; both are occupied by a solid-core wood door with and upper light. Offset between the openings is a fixed, six-light, wood sash window. Both the window and eastern door were added during the 1946 conversion.

Barn and Stable. The barn and stable was constructed in 1935 and later converted to use for storage. During the summer months, the barn and stable are used to house stock to support park operations. The one-story, two-bay log building is on a low poured concrete foundation. The wood shake-clad side-gabled roof exhibits exposed rafter tails; louvered vents front the gable at each side (southeast and northwest) elevation. Log walls are set with double saddle notching at the corners. A single-leaf pedestrian entry is centered on the southwest façade, occupied by an unglazed door composed of diagonal boards set with battens. To the east is a single window opening with four-light sliding wood sashes. A wide-set secondary pedestrian entry is located on the northeast side, and a single window opening with four-light wood sash window punctuates the rear (northwest) elevation. Hinged tubular metal gate sections form a corral around the rear of the shed.

3.2.1.1.3 *Natural Landscape*

The natural landscape of the Fall River Entrance Historic District contributes to its eligibility, and compatibility between the historic district's built environment and the landscape was a central factor in the design of both CCC-era and Mission 66 program developments at the entrance. An important part of district's landscape is its forested backdrop, which remains intact and is a key aspect of its integrity of setting. As was noted above, many trees were planted at the entrance in 1962 to augment its forested feel. The trees in the historic district, primarily ponderosa pines, play an important role in defining the district's character.



Photograph showing representative character-defining ponderosa pine trees within the historic structure resources analysis area (west of office building). Source: NPS, 2018.

3.2.1.2 *Fall River Road*

Fall River Road (U.S. Highway 34) was initially listed in the NRHP in 1987 (McWilliams and McWilliams 1985), and an amended nomination form that expanded the property's boundaries and extended its period of significance was prepared in 2017 (Hackbarth et al. 2017). It is significant under NRHP Criterion A because it was one of the first highways to allow for travel across the Continental Divide to and from the Colorado Front Range, and because it contributes to the theme of transportation in the park. It is also significant under NRHP Criterion C due to its engineering characteristics and the historic techniques used in its construction. Its period of significance is 1913 to 1968, which covers the road's original period of construction between 1913 and 1920 as well as several later episodes of improvements, replacements, and rehabilitation that continued through 1968.

The segment of Fall River Road included in the amended NRHP nomination form is 11.4 miles long and is mostly unpaved, extending from the Fall River Entrance to the Alpine Visitor Center, incorporating a portion of U.S. Highway 34. The segment of the road within the analysis area (i.e., within the Fall River Entrance Historic District) is 0.27-mile-long and asphalt paved. This portion of the Fall River Road (U.S. Highway 34) is regularly maintained and has been modified and widened to accommodate visitor traffic over the years. The Fall River Road overall includes seventy-three contributing features, eighty-four noncontributing features, and one noncontributing structure, most of which are outside of the analysis area and will not be affected by the proposed alternative. There are several sub-features associated with the road that may be impacted by the proposed alternatives, however, including the following:

Medians. Four medians in the center of the road within the historic district form a barrier between inbound and outbound traffic and support native grasses and character-defining pine and fir trees. Two of the medians are located east of the entry kiosks, one is located just west of the entry kiosks, and one is located further west near the entrance to the Aspenglen Campground Road. The medians were created as part of the Mission 66 redevelopment and were designed to preserve character-defining mature ponderosa pine trees that existed when the road was widened.

Vehicle Parking Area/CCC-Era Curbing. Approximately 300 ft northwest of the current entry kiosks is the former site of the 1921 checking station that was relocated to this site in 1933–1934 when the park boundary was adjusted. A pull-off area, located along the north side of Fall River Road (US Highway 34), west of the Fall River Entrance Station, is lined with historic CCC-built stone edging/curbing and is still in use today. The curbing exhibits coursed stone masonry construction installed by the CCC in 1933–1934 as part of the relocation of the 1921 entrance station.



The culvert under the roadway. Source: Otak, 2017.

Culvert. On the immediate west side of the entry kiosks under the roadway is an existing single culvert (137 ft in length) made of corrugated metal pipe for stream drainage.

Boundary Boulders. Along the roadway east of the entry kiosks is a line of boundary boulders once used to help demarcate the travel corridor. These boulders now mark the edges of a pull-off area at the park entrance sign as well.

3.2.2 Environmental Consequences

As discussed in Section 2.7.7 a draft memorandum of agreement to resolve adverse effects under Section 106 on historic properties has been developed in consultation with the state historic preservation office and American Indian tribes (Appendix C). The Advisory Council on Historic Preservation was invited to participate in the process, but they declined. The draft memorandum of agreement was prepared for the NPS's preferred alternative (Alternative 3); it would not be needed if the no-action alternative (Alternative 1) is selected, and it may require modification if either of the other alternatives is selected. Mitigation measures included in the draft memorandum of agreement are (1) development of a historic context study on the Fall River Entrance Station Area, (2) completion of a revised NRHP nomination form for the historic district, (3) development of an interpretive wayside at Sheep Lakes overlook, and (4) rehabilitation of the historic parking area and road curbing built by the Civilian Conservation Corps (CCC) following the Secretary of the Interior's Standards for the Treatment of Historic Properties. These measures would be carried out in consultation with the state historic preservation office as mitigation for the impacts discussed below.

3.2.2.1 Impacts of Alternative 1 — No-Action

Under the no-action alternative, the configuration of the Fall River Entrance Station Area and its entry kiosks would remain the same. However, continued maintenance of the entry kiosks would still need to occur for the entrance to remain operable, including continued repair of the structures if further vehicle strikes occur.

The no-action alternative would have no new impacts on historic structures because no major construction or renovation activities would occur. The historic district would continue to be protected in accordance with federal requirements. Maintenance of the historic district would continue to meet Secretary of the Interior's Standards for the Treatment of Historic Properties. This alternative would have no impacts on the Fall River Entrance Historic District outside of those already occurring.

3.2.2.2 Impacts of Alternative 2 — Retain Fall River Entrance at Current Location and Rehabilitate Existing Buildings

3.2.2.2.1 *Fall River Entrance Historic District*

Fall River Entrance Station Area. Alternative 2 would retain most of the current buildings in this area. One entry kiosk would be replaced, constituting the removal of one historic structure that contributes to the historic district, and the other two entry kiosks and the office building would be rehabilitated and an addition to the office building would be constructed following the Secretary of the Interior's Standards for the Treatment of Historic Properties. The new entry kiosk would have a similar footprint and placement as the existing entry kiosk, and it would have design features that would be compatible with the other structures in the area. Because of this, and because rehabilitation of the other buildings and addition to the office building would follow the Secretary of the Interior's Standards for the Treatment of Historic Properties, the area would experience minimal loss of integrity of design, setting, materials, workmanship, feeling, and association. In addition, under this alternative, the historic district's integrity of location would not be affected because buildings would remain where they presently are.

The presence of construction equipment would directly impact the feeling and setting of the historic district during the up to two-year construction period. These impacts would occur anywhere the construction or staging areas would be seen. There would be no permanent effect on the integrity of the historic district as a result of the construction activity.

Bighorn Ranger Station Area. While no construction would take place in the Bighorn Ranger Station Area, the presence of construction equipment at the Fall River Entrance Station Area and in the staging areas would result in temporary indirect impacts on the Bighorn Ranger Station Area during the up to two-year construction period by disrupting the feeling and setting of the historic district. However, the thick tree cover in the area would help to reduce the visual impact of construction on this area. Reconfiguration of the entrance station would result in some permanent change in the feeling and setting of the ranger station, but modifications would be designed to be compatible with the historic design, thereby minimizing this indirect impact. Because no direct impacts would occur in the Bighorn Ranger Station Area, there would be no loss of integrity of location, design, materials, workmanship, or association here.

Natural Landscape. Up to seven character-defining mature ponderosa pine trees and up to 14,000 sq ft surrounding vegetation would potentially have to be removed to accommodate the parking lot rehabilitation, land reconfigurations, and widening of Fall River Road (U.S. Highway 34). Although this would result in the removal of character-defining trees, it would not noticeably modify the

overall feeling or setting of the landscape around the entrance because the number of character-defining trees being removed is minimal when compared to the number within the project area. Figure 8 shows the character-defining trees that would potentially be removed; the aerial photograph background in this figure shows the much larger number of character-defining trees in and around the project area that would not be removed. The loss of integrity of feeling and setting resulting from the removal of character-defining trees would likely not be noticeable to most park visitors, and the natural landscape of the entrance station area would experience no loss of the other aspects of historical integrity. There would be no permanent effect on the integrity of the historic district.

In summary, under Alternative 2, the Fall River Entrance Historic District would lose one structure that contributes to the Mission 66 period of significance, but it would be replaced, and the other structures would be rehabilitated and constructed following Secretary of the Interior's Standards for the Treatment of Historic Properties. The loss of a contributing resource would slightly diminish the Fall River Entrance Historic District's ability to convey its significance as a Mission 66-era entrance area, but this loss and other changes would collectively result in a minor impact to the district.

3.2.2.2.2 Fall River Road

The portion of the Fall River Road (U.S. Highway 34) within the project area is regularly maintained and has been modified and widened to accommodate visitor traffic through the years. The addition of a travel lane and of the accessible pedestrian path, bollards, recessed pavement markers, and other traffic calming devices would result in a minor loss of integrity of design, setting, and feeling for the historic district.

3.2.2.3 Impacts of Alternative 3 — Retain Fall River Entrance at Current Location and Replace Existing Buildings with New Construction (Proposed Action and Preferred Alternative)

3.2.2.3.1 Fall River Entrance Historic District

Fall River Entrance Station Area. Alternative 3 would retain the current configuration of building placement, but the historic structures in the Fall River Entrance Station Area (the office building and the three entry kiosks) would be replaced with newly constructed buildings, resulting in the removal of historic structures that contribute to the historic district. The new office building and entry kiosks would be constructed using the same orientation and at the same location as the previous structures to minimize impacts on the historic setting. Under this alternative, the historic district's integrity of location would not be affected because the replacement buildings would be built in approximately the same places as the existing buildings. However, because the replacement buildings would be built in a different style using new materials, and because of the alterations to the road that would occur (addition of a lane and traffic calming devices and safety features), the historic district would lose a moderate degree of integrity of design, setting, materials, workmanship, and feeling. In addition, the entrance station area would lose some of its integrity of association with the Mission 66 period of development in the park, though it would continue its association with Rocky Mountain National Park as an entrance area.

As under Alternative 2, the presence of construction equipment would result in a temporary direct impact to the feeling and setting of the historic district during the up to two-year construction period, but there would be no permanent effect on the integrity of the historic district as a result of the construction activity.

Bighorn Ranger Station Area. Indirect impacts on the Bighorn Ranger Station Area under Alternative 3 would be similar to those discussed under Alternative 2, though slightly more extensive because construction would include all buildings in the entrance station area. Construction activity would result in a temporary loss of integrity of setting and feeling in this area, and the replacement of all three entry kiosks and the office building would result in some permanent change in setting and feeling. Because no direct impacts would occur in the Bighorn Ranger Station Area, there would be no loss of integrity of location, design, materials, workmanship, or association here.

Natural Landscape. The impacts on character-defining mature ponderosa pine trees and other surrounding vegetation would be similar to, but slightly more extensive than, those described for Alternative 2. Up to 12 character-defining mature ponderosa pine trees and up to 16,000 sq ft of surrounding vegetation would potentially need to be removed to accommodate the parking lot rehabilitation, land reconfigurations, and widening of Fall River Road (U.S. Highway 34). However, as with Alternative 2, this would not noticeably modify the character of the landscape around the entrance because the number of character-defining trees being removed is minimal when compared to the number within the project area (see Figure 8). The loss of integrity of setting and feeling resulting from the removal of character-defining trees would likely not be noticeable to most park visitors, and the natural landscape of the entrance station area would experience no loss of the other aspects of historical integrity.

In summary, under Alternative 3, the Fall River Entrance Historic District would lose contributing buildings, structures, and small-scale features that contribute to the Mission 66 period of significance. The buildings would be replaced with buildings designed to be compatible with the 1930s period of significance. In addition, the buildings would be constructed to comply with the design guidelines for Rocky Mountain National Park, which call for an adaption of styles to modern building approaches, and will meet the Secretary of the Interior's Standards for the Treatment of Historic Properties. Although the entrance station area would remain in its original Mission 66 era location, the loss of contributing resources would diminish the Fall River Entrance Historic District's ability to convey its significance as a Mission 66 era entrance area. Collectively, these changes would result in a moderate impact to the historic district.

3.2.2.3.2 Fall River Road

The impacts on Fall River Road (U.S. Highway 34), the medians, and the parking area would be the same under Alternative 3 as under Alternative 2.

3.2.2.4 Alternative 4 — Move Fall River Entrance to the West and Construct New Buildings

3.2.2.4.1 Fall River Entrance Historic District

Fall River Entrance Station Area. Alternative 4 would include the replacement of the historic structures in the Fall River Entrance Station Area with newly constructed buildings, and these would be built in a different location. This would result in the removal of historic structures that contribute to the historic district. Under this alternative, the historic district's integrity of location, design, setting, materials, workmanship, and feeling would be reduced. In addition, the entrance station area would lose a moderate degree of its integrity of association with the Mission 66 period of development in the park, though it would continue its association with Rocky Mountain National Park as an entrance area.

In addition, as under Alternatives 2 and 3, the presence of construction equipment would temporarily directly impact the feeling and setting of the historic district during the up to two-year construction period.

Bighorn Ranger Station Area. Indirect impacts on the Bighorn Ranger Station Area under Alternative 4 would be similar to those discussed under Alternative 3, though again more extensive because construction would involve replacing the all buildings in the entrance station area with new buildings, and these would be located closer to the Bighorn Ranger Station Area. Construction activity would result in a temporary loss of integrity of setting and feeling in this area, and the replacement of the entrance station area structures would result in some permanent change in setting and feeling. Because no direct impacts would occur in the Bighorn Ranger Station Area, there would be no loss of integrity of location, design, materials, workmanship, or association here.

Natural Landscape. The impacts on character-defining mature ponderosa pine trees and other surrounding vegetation would be similar to those described for Alternatives 2 and 3, but would be more extensive. Construction of new entrance structures to the west and additional parking spaces would require removal of up to 22 character-defining mature ponderosa pine trees and up to 25,000 sq ft of vegetation. However, this would not noticeably modify the character of the landscape around the entrance because the number of character-defining trees being removed is minimal when compared to the number within the analysis area (see Figure 8). The loss of integrity of setting and feeling resulting from the removal of character-defining trees would likely not be noticeable to most park visitors, and the natural landscape of the entrance station area would experience no loss of the other aspects of historical integrity.

In summary, under Alternative 4, the Fall River Entrance Historic District would lose contributing buildings, structures, and small-scale features that contribute to the Mission 66 period of significance. The buildings would be replaced with buildings designed to be compatible with the 1930s period of significance, and these would be located in a different place. The design would comply with the design guidelines for Rocky Mountain National Park, which call for an adaption of styles to modern building approaches and will meet the Secretary of the Interior's Standards for the Treatment of Historic Properties. The loss of contributing resources and the change of location would diminish the Fall River Entrance Historic District's ability to convey its significance as a Mission 66 era entrance area. However, these changes would amount to a moderate impact to the overall integrity of the historic district.

3.2.2.4.2 *Fall River Road*

Impacts on Fall River Road (U.S. Highway 34), the medians, and the parking area would be the similar under Alternative 4 as under Alternatives 2 and 3. However, Alternative 4 would require partial removal of the westernmost median and partial removal of the center median. This would result in a moderate loss of integrity of design, setting, and feeling for the historic district.

3.2.3 Cumulative Impacts

As discussed in Section 3.2.1, the analysis area is the Fall River Entrance Historic District and small areas outside the historic district that may be subject to indirect impacts from the proposed action. The temporal scale is from when the district was listed and permanently into the future because the actions taken on the buildings within the historic district would result in some permanent impacts.

The past, present, and reasonably foreseeable actions that have or would impact the historic district include hazard tree management, vegetation treatments, and water and sewer system rehabilitation (as described in Section 3.1). Hazard tree management and vegetation treatments are discussed

below as they relate to the natural landscape of the district. The reasonably foreseeable actions of rehabilitating the water and sewer systems would result in temporary impact to the integrity of setting and feeling within the Fall River Entrance Historic District from the presence of construction equipment. The water and sewer systems have not been evaluated for their contribution to the eligibility of the historic district, therefore, the impact on the integrity of the historic district from these reasonably foreseeable actions is unknown.

Under the no-action alternative, there would be no additional cumulative impacts because no major construction or renovation activities would occur that would impact the integrity of the historic district.

All action alternatives would result in additional cumulative impacts to the integrity of setting and feeling from the presence of construction equipment. As stated previously, park personnel would attempt to complete the Fall River Entrance Improvements Project at the same time as the reasonably foreseeable actions. This would result in a shorter timeframe in which the impact to the integrity of setting and feeling would occur from the proposed action when combined with the reasonably foreseeable actions. This would not result in a permanent cumulative impact to historic district.

Collectively, the past, present and reasonably foreseeable actions have or could have a small impact on the natural landscape within the analysis area. The actions of hazardous tree management have and could remove character-defining trees. However, the park managers strive to maintain the integrity of setting and feeling when determining how to manage hazardous trees. The design for the rehabilitation of the water and sewer systems is not complete and every effort would be made during design to preserve and avoid as many character-defining trees as possible. For purposes of this analysis, it is estimated that the reasonably foreseeable actions would remove up to 25 character-defining trees within the entrance area. When combined with the all action alternatives, this would result in the potential removal of up to 32 to 47 character-defining trees depending on the alternative. The number of character-defining trees removed under the cumulative scenario by alternative is as follows:

- Alternative 1 (No-Action) – up to 25 character-defining trees from other actions. Under the no-action alternative, this project would not remove additional character-defining trees
- Alternative 2 – up to 32 character-defining trees
- Alternative 3 – up to 37 character-defining trees
- Alternative 4 – up to 47 character-defining trees

This cumulative impact would not noticeably modify the integrity of setting and feeling around the entrance because the number of character-defining trees being removed is minimal when compared to the extent of the forested area that would not be impacted. The loss of integrity of setting and feeling resulting from the removal of character-defining trees would likely not be noticeable to most park visitors.

3.2.4 Historic Structures Conclusion

In summary, Alternative 1 would have no new impacts on the Fall River Entrance Historic District outside of those already occurring. Under Alternative 2, the loss of a contributing resource would diminish the Fall River Entrance Historic District's ability to convey its significance as a Mission

66-era entrance area, but this loss would result in a minor impact to the district. Alternative 3 would involve the loss of more contributing resources and would result in a moderate impact to the district. Alternative 4 would have a similar level of impact as Alternative 3, except that under Alternative 4 the entrance station would be moved to a new location and would result in the loss of the integrity of location and in the loss of an even larger number of contributing resources. This would be an impact that is slightly greater than under Alternative 3; however, this would still be a moderate impact.

3.2.5 Section 106 Summary

All action alternatives would result in adverse effects to the Fall River Entrance Historic District and Fall River Road (U.S. Highway 34) under Section 106. As discussed in Section 3.2.2, a draft memorandum of agreement to resolve adverse effects on historic properties has been developed in consultation with the state historic preservation office and American Indian tribes. The Advisory Council on Historic Preservation was invited to participate in the process, but they declined. Draft mitigation measures are summarized in Section 3.2.2 and are described further in Appendix C.

3.3 Health and Human Safety

3.3.1 Affected Environment

The analysis area for health and human safety is a 50-foot buffer around all current and proposed buildings and traffic lanes, not including the buildings in the north part of the historic district. This is the area where human health and safety improvements are proposed and includes the construction limits of the project. The north part of the historic district is not included because there would be no project actions in that area. See Figure 9 for a map of this analysis area.

The existing buildings (office building and entry kiosks) do not meet the most current standards of the ABA applicable to federal buildings and given this, employees with disabilities cannot be fully accommodated. Entrances, doors, door hardware and approaches to doors are noncompliant with ABA standards, as are restroom fixtures, surface heights, or dimensions (inadequate turning radius) in the restrooms and kiosk work areas. There is no accessible route between the office building and the entry kiosks, and there is not an accessible parking area connected by an accessible route to the work areas. Park employees currently walk along Fall River Road (U.S. Highway 34) to access the park facilities, which creates a safety hazard.

The entry kiosks do not have modern ventilation systems with a positive air flow, so exhaust from idling vehicles is not prevented from entering the entry kiosks. The lack of modern ventilation creates a situation in which staff in the entry kiosks can be exposed to the vehicle exhaust, particularly when a long line of idling cars occurs.

The current entrance footprint does not safely accommodate larger, modern vehicles. Large vehicles, including motorhomes and snowplows, have struck the facilities multiple times in the past, creating a safety risk to employees and visitors.

Snow and ice builds up on top of the existing buildings and snow or icicles can fall off in large chunks onto people (employees and visitors) walking by. In addition, ice and snow builds up on the walkways and the crosswalk between the entry kiosks, causing slipping hazards, during and after storms.

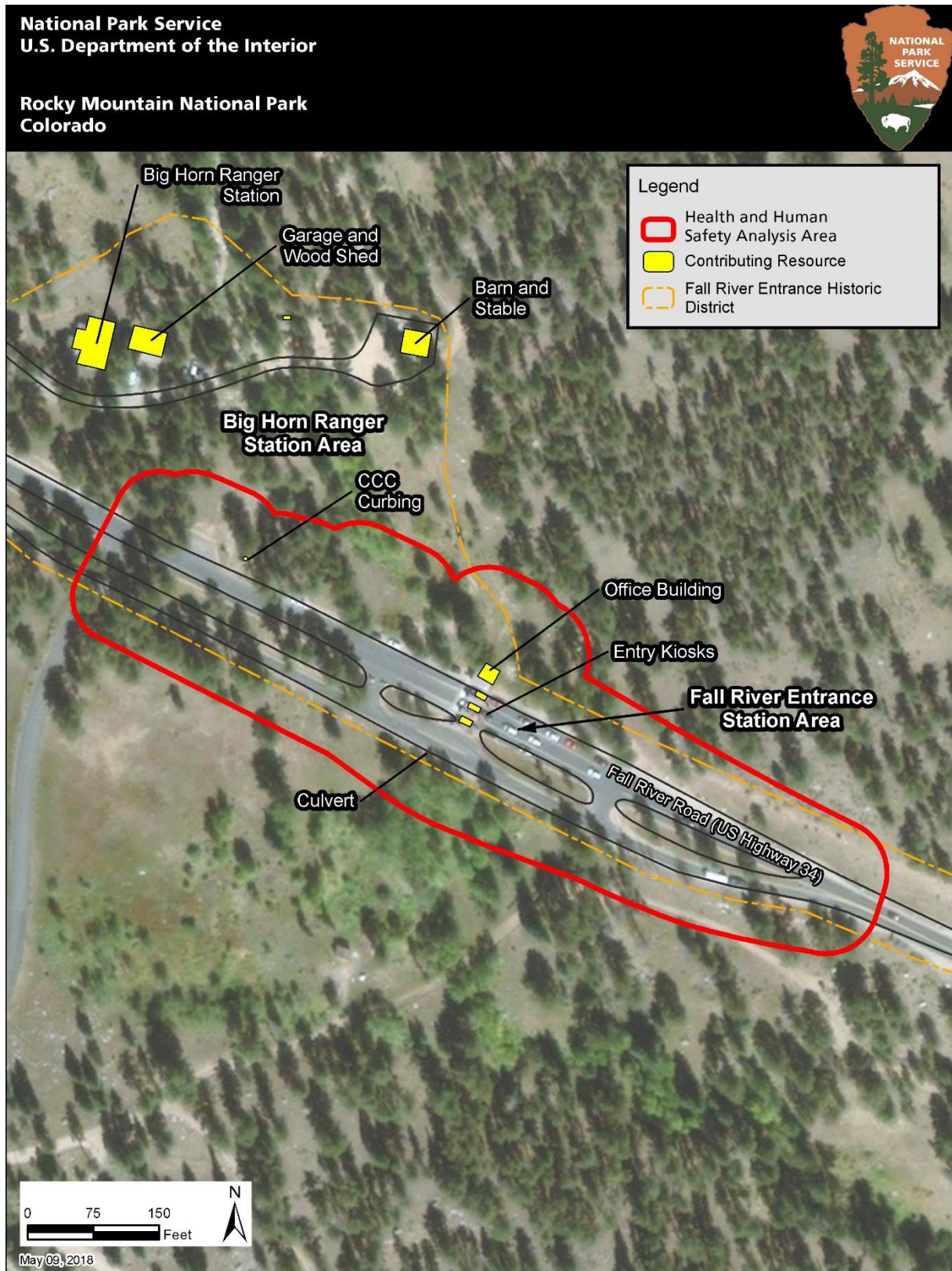


Figure 9. Health and Human Safety Analysis Area

3.3.2 Impacts of Alternative 1 — No-Action

Under the no-action alternative, there would be no change to health and human safety. The entrance station would remain in its current location and all building would be maintained in their current condition. Facilities would continue to be inaccessible to people with disabilities. Park staff would continue to be exposed to vehicle exhaust entering the entry kiosks. Large vehicles and winter conditions would continue to create hazards to employees and visitors. The park would continue to attempt to reduce these hazards through snow removal from the buildings and attempting to control traffic conditions through the use of traffic calming devices consisting of cones and three permanent concrete bollards installed in front of each kiosk. These measures do not adequately address the health and human safety concerns and therefore the no-action alternative does not meet the purpose and need of the project. Snow removal is only performed intermittently and cannot fully prevent incidence of snow and ice falling from buildings during severe weather events. The use of cones and bollards prevent head-on collisions but do not prevent large vehicles from striking entry kiosks while passing through the entrance.

3.3.3 Impacts of Alternative 2 — Retain Fall River Entrance at Current Location and Rehabilitate Existing Buildings

Under Alternative 2 construction activities could result in impacts on health and human safety during the up to two-year construction period. The presence of large vehicles and construction equipment could create a hazard for employees and visitors. However, a temporary fee collection area would be set up to divert visitors and staff away from the construction area and keep employees separate as facilities are being upgraded. Therefore, the risk of injury to employees and visitors would be extremely low.

Under Alternative 2 the construction of one new kiosk, a restroom, and additional employee parking space to meet federal accessibility standards would meet the needs of park employees and visitors with disabilities. However, two of the entry kiosks would not be updated to federal accessibility standards and employees with disabilities would not be able to access them.

Health and human safety of the employees would be improved through the addition of a fourth fast pass park entrance lane and positive flow ventilation systems in entry kiosks. This would reduce employees' exposure to vehicle exhaust. Other measures such as the installation of traffic calming devices (shown on Figures 4 through 6) would reduce the risk of vehicle strikes. Additional employee parking would reduce pedestrian travel along Fall River Road (U.S. Highway 34) and make it safer and more convenient for employees to access the park facilities. A new snow melt system in the new accessible pedestrian path would reduce the slipping hazard for employees and visitors, and updated structures would minimize the risk of injuries due to falling snow and ice.

3.3.4 Impacts of Alternative 3 — Retain Fall River Entrance at Current Location and Replace Existing Buildings with New Construction (Proposed Action and Preferred Alternative)

Under Alternative 3, short-term construction impacts would be the same as those described for Alternative 2.

Accessibility of all facilities would be increased through the reconstruction of all existing buildings to meet federal accessibility standards, improving conditions for park employees and visitors with disabilities.

As with Alternative 2, additional parking spaces (including one space meeting federal accessibility standards), a fourth fast pass park entrance lane, positive flow ventilation systems, crash protection, integrated traffic calming devices, and snow melt systems would result in an overall beneficial impact on the health and safety of visitors and employees.

3.3.5 Alternative 4 — Move Fall River Entrance to the West and Construct New Buildings

Under Alternative 4 construction activities would result in short-term impacts on health and human safety that are the same as those discussed under Alternative 2. Updated buildings and facilities would result in impacts that are the same as those discussed under Alternative 3, improving the overall health and safety of visitors and employees.

3.3.6 Cumulative Impacts

As described in Section 3.3.1, the analysis area for health and human safety is a 50-foot buffer around all current and proposed buildings and traffic lanes, not including the buildings in the north part of the historic district. The temporal scale is the two-year construction period. The past and present actions of hazardous tree removal and vegetation treatments within this analysis area would have no impact on health and human safety because they would not occur at the same time as the construction of this project. Reasonably foreseeable actions that could impact health and human safety include rehabilitating the water and sewer systems at the Aspenglen Campground and at the Fall River Entrance Station Area and Bighorn Ranger Station Area. Collectively, these reasonably foreseeable actions would result in large vehicles and construction equipment in the analysis area that could create a hazard for employees and visitors. As discussed in Section 3.1, park personnel would attempt to complete these projects during the same timeframe as this project.

The no-action alternative would not result in additional cumulative impacts to health and safety because there would be no large vehicles or construction activities from this project.

As previously discussed in this environmental assessment, all action alternatives (Alternatives 2, 3, and 4) would result in the additional presence of large vehicles and construction equipment that could create a hazard for employees and visitors. However, a temporary fee collection area would be set up to divert visitors and staff away from the construction area and keep employees separate as facilities are being upgraded. Therefore, the risk of injury to employees and visitors would be extremely low. There is not a difference in impacts under the action alternatives. All action alternatives would not result in meaningful additional hazards to employees and visitors.

If park managers are able to schedule these projects at the same time as this project, visitors and staff would be already being diverted away from the construction area. Therefore, there would be no additional cumulative adverse impacts under any of the action alternatives. If park managers are not able to schedule the projects together, then the water and sewer rehabilitation projects would extend the amount of time impacts would occur, but the risk of injury would remain extremely low.

3.4 Visitor Use and Experience

3.4.1 Affected Environment

The analysis area for visitor use and experience is the Fall River Entrance Historic District because this is the area of concentrated visitor use near the construction and staging areas. Visitors to the park do not typically recreate in this analysis area, rather they use it to enter the park and disperse

to trailheads, campgrounds, and other recreational sites. As a result of this being an entrance to the park, the analysis area experiences noise from vehicles and visitors and is typically not considered a quiet environment.

The Fall River Entrance Station Area was constructed in the early 1960s and designed when the park had 1.5 million annual visitors. Park visitation is now over 4.5 million annual visitors, three times that of the original design. On occasion during the peak summer period, the entrance line extends over a mile east from the entry kiosks, stretching outside the park boundary. More frequently during the summer and fall seasons, the entrance back-up is around 0.25-mile-long, resulting in wait times of approximately 20–30 minutes. Approximately 300 ft northwest of the park entrance, a parking pullout that originally served the 1921 checking station is still used by visitors to orient themselves to the park.

Daily vehicle counts at the entrance station in 2017 range from a low of 86 to a high of 4,109. In 2017, the top 10 busiest days at the entrance were weekends in September and October. Figure 10 shows the average vehicle count and the top 10 days of high vehicle use in 2017.

Fall River Entrance 2017
Vehicle Counts – Top Ten Days

Date	Vehicle Count
September 30	4,109
September 3	3,362
July 2	3,215
August 5	3,066
September 2	2,975
July 1	2,922
September 22	2,871
August 12	2,869
August 19	2,841
September 23	2,837

Average Daily Vehicle Counts by Day of the Week

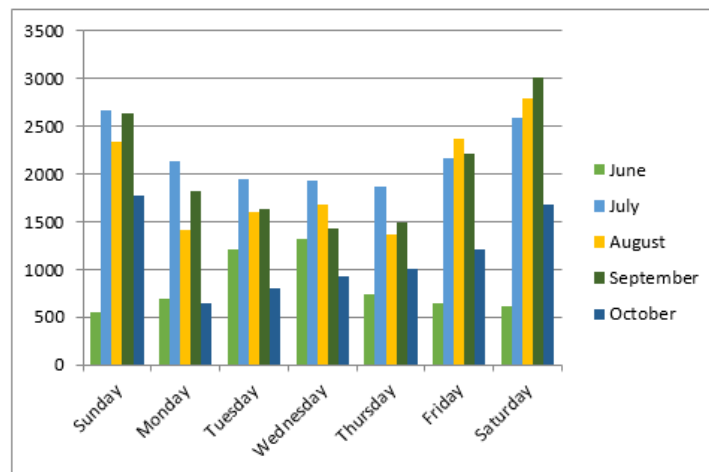


Figure 10. Average Vehicle Count and The Top 10 Days of High Vehicle Use In 2017

3.4.2 Impacts of Alternative 1 — No-Action

Under the no-action alternative, the entrance station would continue to provide three park entrance lanes, and the frequent back-ups between 0.25 mile and over one mile would continue. Park visitation is likely to continue to increase, resulting in longer wait times at the park entrance, further creating an adverse impact on visitor use and experience. Because of this impact, the no-action alternative does not meet the needs of the project.

3.4.3 Impacts of Alternative 2 — Retain Fall River Entrance at Current Location and Rehabilitate Existing Buildings

Direct impacts under Alternative 2 would include short-term adverse impacts on visitor use and experience from construction during the months of April to November for up to two years. During construction, fee collection at the Fall River Entrance Station Area would be limited to one lane that would only be open to visitors with a pre-paid pass. Despite the use of pre-paid passes, reducing the entrance to one lane would result in increased wait times during construction because all passes would still need to be reviewed by a park staff member upon entrance. If visitors arrive at the entrance without a pre-paid pass, they would be required to turn around and return to the visitor center or other location to purchase a pass. At the visitor center visitors would be required to park and come inside, resulting in decreased convenience, potential parking lot congestion, and longer lines at the purchase counter. Brief, temporary closures generally lasting less than 30 minutes, but on occasion lasting several hours during construction (as discussed in Section 2.6.1) would result in additional increased wait times.

Short-term construction noise would occur within the analysis area where it is common for visitors to experience noise from vehicles and other human-made sounds. The introduction of equipment would increase the noise level that visitors could hear intermittently for up to two years during the construction period. In addition, the presence of construction equipment would create a visual disturbance and detract from the feel of the entrance (see further discussion of this in Section 3.2.2.2, Historic Structures). However, the construction and staging areas would be located in the immediate vicinity of the park entrance where it is common for visitors to see and hear vehicles and human activity (see Figure 7 in Chapter 2 for the location of staging areas).

Mitigation measures implemented prior to and during construction would help to offset these adverse impacts on visitors. These measures include publicly announcing the upcoming project, posting signs stating that the Fall River Entrance Station Area is temporarily restricted to visitors with a pre-paid pass, encouraging visitors to use the Beaver Meadows Entrance when possible, and clearly identifying area closures to maintain visitor safety throughout the construction period (see Visitor Use and Experience in the Mitigation Measures sections for further details). This would allow visitors to plan their visit and manage expectations for wait times and increased visual and noise disturbance. These mitigation measures would not fully offset these impacts.

Visitors would receive beneficial impacts as a result of improvements to the entrance including increased accessibility at park facilities, proposed parking (five spaces) in the rehabilitated Historic CCC Curbing pull-off area, reduced wait times, and increased efficiency and reliability from improved technology systems. The rehabilitated pull-off would increase visitor opportunities to stop and become oriented to the park after passing through the entrance station. The entrance reconfiguration is intended to benefit visitors through the added convenience and reduced wait times.

3.4.4 Impacts of Alternative 3 — Retain Fall River Entrance at Current Location and Replace Existing Buildings with New Construction (Proposed Action and Preferred Alternative)

Under Alternative 3 improvements to the park entrance would result in the same impacts as those discussed under Alternative 2, providing visitors with benefits following short-term adverse impacts from construction and staging activities.

3.4.5 Alternative 4 — Move Fall River Entrance to the West and Construct New Buildings

Under Alternative 4 improvements to the park entrance would result in the same impacts as those discussed under Alternative 2, providing visitors with benefits following short-term adverse impacts from construction and staging activities.

3.4.6 Cumulative Impacts

As discussed in Section 3.4.1, the analysis area for visitor use and experience is the Fall River Entrance Historic District. The temporal scale for cumulative impacts is the two-year construction period. The past, present, and reasonably foreseeable actions have and can increase the noise, visual impacts, and wait times that visitors experience at the entrance. Collectively, these actions result in increased wait times visitors experience when entering the park.

Under the no-action alternative, visitors would continue to experience frequent back-ups. When combined with the impacts of the past, present, and reasonably foreseeable actions, there would likely be increased wait times during construction and hazardous tree removal for visitors trying to enter the park, further creating an adverse cumulative impact on visitor use and experience.

As previously discussed in this environmental assessment, all action alternatives (Alternatives 2, 3, and 4) would result in the same increased wait times during the up to two-year construction period. When combined with the past, present, and reasonably foreseeable actions there would be additional increases in visitor wait times, additional construction noise, and additional visual impacts on visitors to the park, creating an adverse cumulative impact.

To minimize the cumulative impacts on visitors, the park would attempt to schedule the reasonably foreseeable actions at the same time as this project. This would ensure that the combined impact of the actions would be limited to the months of April to November for up to two years rather than occurring as stand-alone projects that would increase the amount of time visitors would experience impacts under the cumulative scenario.

CHAPTER 4 CONSULTATION AND COORDINATION

The following American Indian tribes, agencies, and organizations were contacted and were invited to participate in the planning process:

- Advisory Council on Historic Preservation
- American Indian Consultation
 - Arapaho Tribe of the Wind River Reservation, Wyoming
 - Assiniboiné and Sioux Tribes of the Fort Peck Indian Reservation, Montana
 - Cheyenne and Arapaho Tribes, Oklahoma
 - Comanche Nation, Oklahoma
 - Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana
 - Shoshone Tribe of the Wind River Reservation, Wyoming
 - Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado
 - Ute Indian Tribe of the Uintah & Ouray Reservation, Utah
 - Ute Mountain Tribe of the Ute Mountain Reservation, Colorado, New Mexico, and Utah
 - White Mesa Ute, Utah
- Bureau of Reclamation
- Colorado Congressional Delegation (House and Senate)
- Colorado Department of Public Health and Environment
- Colorado Department of Natural Resources
- Colorado Department of Transportation
- Colorado Division of Parks and Wildlife
- Colorado Fish and Wildlife Conservation
- Colorado House members representing Larimer and Grand Counties Colorado Natural Areas Program
- Colorado Natural Heritage Program
- Colorado Senate members representing Larimer and Grand Counties
- Colorado State Historic Preservation Officer, Office of Archaeology and Historic Preservation
- Estes Park Town Manager and Mayor
- Federal Emergency Management Agency
- Grand County Commissioners
- Grand Lake Fire Protection District
- Grand Lake Metropolitan Recreation District
- Grand Lake Town Manager and Mayor
- Larimer County Commissioners
- U.S. Army Corps of Engineers, Regulatory Program
- U.S. Department of Agriculture Natural Resource Conservation Service
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Geological Survey
- U.S. Forest Service Sulphur Ranger District

REFERENCES

Brunswick, Robert H.

- 2000 Report on 1999 Archeological Surveys in Rocky Mountain National Park by the University of Northern Colorado, Boulder and Larimer Counties. Document on file at History Colorado, Denver, Colorado.

Hackbarth, Howard, Ruter, Scott, Smith, Levstick

- 2017 National Register of Historic Places Registration Form – Fall River Road (Boundary Increase and Amendment). On file at Rocky Mountain National Park.

Hanson, Lisa S.

- 2003 Cultural Resource Survey of the Deer Mountain Wildland-Urban Interface Fuels Management Project, Rocky Mountain National Park, Larimer County, Colorado (Romo C-03-08). Document on file at History Colorado, Denver, Colorado.

Higgins, S. Alan, and Elizabeth Heavrin

- 2017 National Register of Historic Places Registration Form – Fall River Entrance Historic District (Amendment and Boundary Increase). Document on file at History Colorado, Denver, Colorado.

McWilliams, Carl, and Karen McWilliams

- 1985 Classified Structure Field Inventory Report, Fall River Road. Document on file at History Colorado, Denver, Colorado.

APPENDICES

Appendix A: USFWS Concurrence Letter

Appendix B: Soil and Vegetation Protection Measures

Appendix C: Draft Memorandum of Agreement

APPENDIX A: USFWS CONCURRENCE LETTER



United States Department of the Interior

NATIONAL PARK SERVICE
Rocky Mountain National Park
Estes Park, Colorado 80517



IN REPLY REFER TO:
A3815 (ROMO)

RECEIVED JAN 09 2018

JAN - 5 2018

Leslie Ellwood
U.S. Fish & Wildlife Service
P.O. Box 25486
Federal Center (Mail Stop 65412)
Denver, CO 80225-0486

U.S. FISH AND WILDLIFE SERVICE	
<input type="checkbox"/> NO CONCERNS	
<input checked="" type="checkbox"/> CONCUR NOT LIKELY TO ADVERSELY AFFECT	
<input type="checkbox"/> NO COMMENT	
<i>Drue DeBerry</i>	<i>2/9/18</i>
Drue DeBerry	DATE
Colorado and Nebraska Field Supervisor	

Dear Ms. Ellwood:

We are seeking concurrence from the U.S. Fish and Wildlife Service for our determinations of effect for listed species that could be affected by the redesign and expansion of the Fall River Entrance Station in Rocky Mountain National Park (hereinafter referred to as "Park").

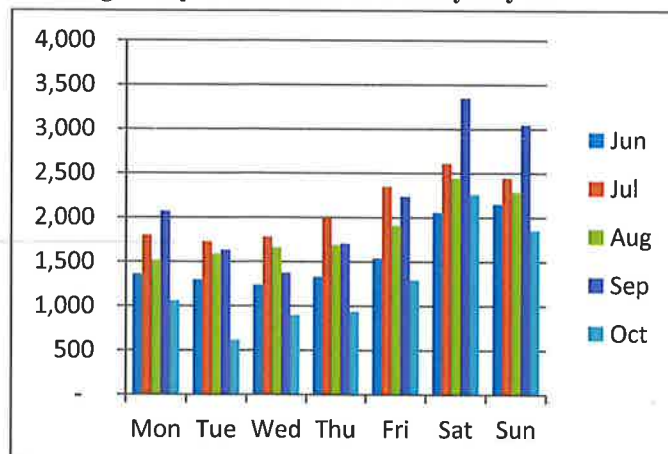
The Fall River Entrance (FRE) is one of two major entrance stations on the east side of the Park. It is located on U.S. Highway 34 just inside the park boundary. The current FRE was constructed in the 1960s as part of NPS Mission 66 enhancements. It consists of three small entrance kiosks that serve three separate roadway travel lanes, and a 196 square foot single story office building.

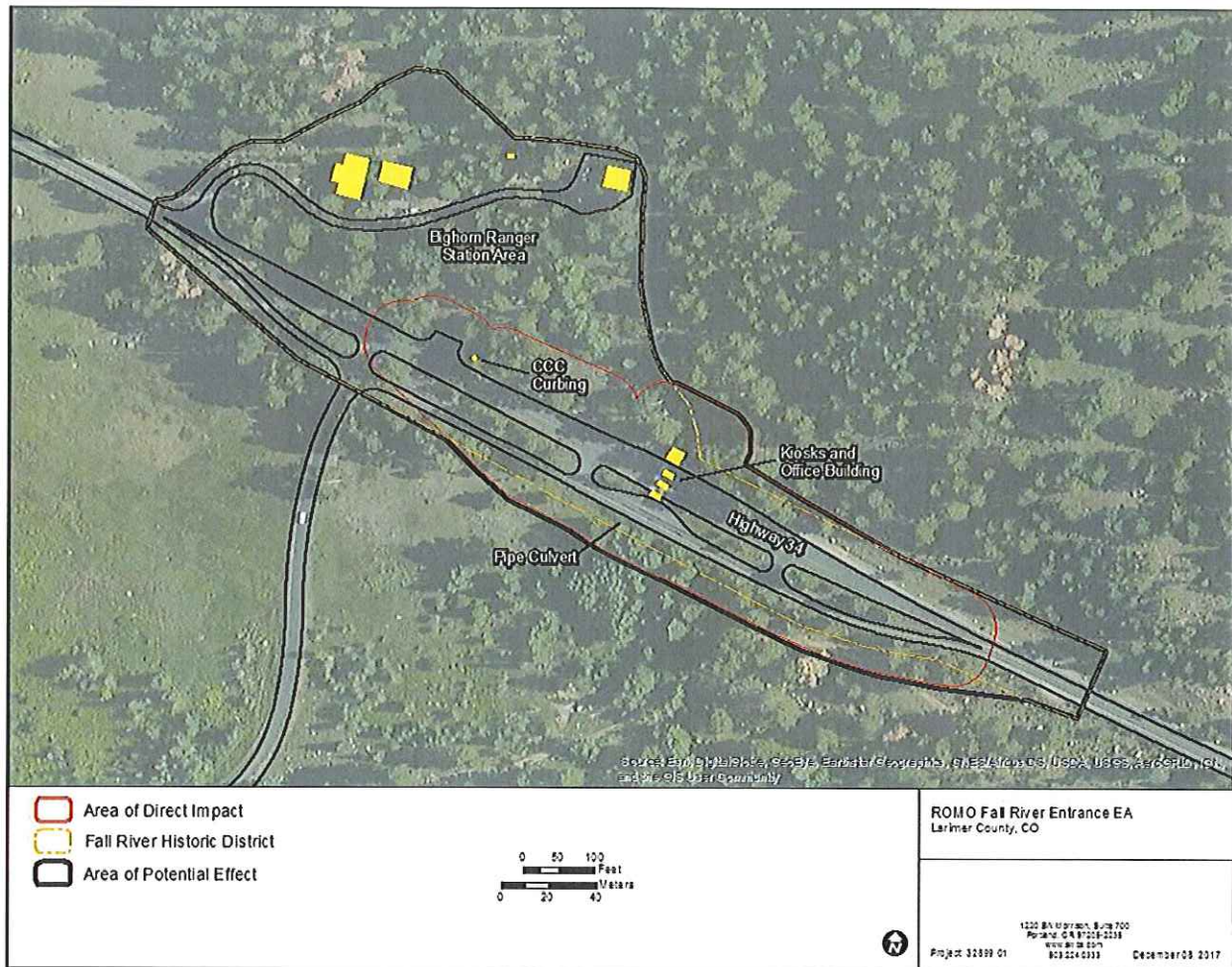
Daily vehicle counts at FRE in 2015 range from a low of 46 (Wednesday, 2/4/15) to a high of 4,680 (Saturday, 9/26/15). In 2015, the top nine busiest days at FRE were weekends in September and October.

**Fall River Entrance 2015
Vehicle Counts – Top Nine Days**

Date	Vehicle Count
9/26 Sat.	4,680
9/27 Sun.	3,550
9/19 Sat.	3,365
9/20 Sun.	3,339
9/6 Sun.	3,271
10/10 Sat.	3,136
10/3 Sat.	3,012
9/25 Fri.	2,935
9/5 Sat.	2,863

Average Daily Vehicle Counts FRE by Day of the Week





The overall increase in visitors the past few years, along with the use of variable messaging signs by the Colorado Department of Transportation directing visitors to use the FRE instead of the Beaver Meadows Entrance, is resulting in long lines for vehicles entering the Park at the FRE. On peak summer and fall days, entrance lines have been over a mile and a half long, stretching well outside the park boundary. The existing structures at the FRE are inadequate from an employee health and safety standpoint. Employees breathe exhaust fumes from vehicles entering the park, and the office space is inadequate to complete shift reports, take breaks, and accommodate meetings between supervisors and employees.

The proposed alternative to redesign and expand the existing site will include the following key elements:

1. Increase the number of incoming traffic lanes from three to four.
2. Add a parking lot for visitors consisting of five new spaces.
3. Add five parking spaces to existing employee parking area, for a total of 10 employee parking spaces.
4. Remove three kiosks and an office building. New buildings including a larger office building will be constructed largely in the footprint of the current buildings and in a similar configuration.
5. Direct ground disturbance of up to 4.05 acres (as indicated by the red line on the map above).
6. Two staging areas for material and equipment will potentially be utilized during the project. One at the existing Sheep Lakes Parking Area and one at the Bighorn Ranger Station. These areas will not have additional ground disturbance as activities will be restricted to the paved surfaces at the Sheep Lakes Parking Area and areas devoid of vegetation at the Bighorn Ranger Station.

7. Use of heavy machinery and equipment during the construction period which is projected to be 10 to 12 months extending through one peak summer visitation period for one year. Work will only occur from 6 a.m. to official sunset (no night work allowed) at FRE.
8. Transportation and staging of machinery and equipment during the construction period which is projected to be 10 to 12 months extending through one peak summer visitation period for one year. Work will only occur from 6 a.m. to official sunset (no night work allowed) at Sheep Lakes Parking Area and the Bighorn Ranger Station Staging Area.
9. Replacement of the culvert on Bighorn Creek at its Highway 34 crossing. Water will be temporarily diverted around the work area during placement of the culvert and back into the creek resulting in no loss of water or downstream depletions.
10. In the long term this project is anticipated to result in shorter wait/idling times at the FRE and improved safety for employees and visitors.

Our evaluation of the potential effects this project may have on listed species is shown in the following table. For those species excluded from further consideration, a rationale is provided. For the remaining species, a more detailed explanation of potential effects is included in this letter.

Table 1. Fall River Environmental Assessment Project Threatened & Endangered Species Evaluation for Larimer County

Common Name	Species	Status	Species Excluded	Rationale for Exclusion
BIRDS				
** Least tern	<i>Sterna antillarum</i>	Endangered	Yes	The project will not alter flows in the Fall River, which is a tributary of the South Platte River.
Mexican spotted owl	<i>Strix occidentalis lucida</i>	Threatened	NO	Suitable habitat occurs in the project area.
** Piping plover	<i>Charadrius melodus</i>	Threatened	Yes	The project will not alter flows in the Fall River, which is a tributary of the South Platte River.
** Whooping crane	<i>Grus Americana</i>	Endangered	Yes	The project will not alter flows in the Fall River, which is a tributary of the South Platte River.
FISH				
Greenback cutthroat trout	<i>Oncorhynchus clarki stomias</i>	Threatened	Yes	This species does not occur in the project area.
** Pallid sturgeon	<i>Scaphirhynchus albus</i>	Threatened	Yes	The project will not alter flows in the Fall River, which is a tributary of the South Platte River.
MAMMALS				
Canada lynx	<i>Lynx canadensis</i>	Threatened	Yes	The project does not occur in in a Lynx Analysis Unit.
Preble's meadow jumping mouse	<i>Zapus hudsonius preblei</i>	Threatened	Yes	Project occurs above 7,800 feet elevation, outside of range.
North American wolverine	<i>Gulo Gulo luscus</i>	Proposed Threatened	Yes	The project occurs below 9,500 feet, outside of wolverine habitat.
PLANTS				
Utes ladies' - tresses	<i>Spiranthes diluvialis</i>	Threatened	Yes	Project occurs above 7,800 elevation, outside of range.
**Western prairie fringed orchid	<i>Platanthera praeclara</i>	Threatened	Yes	The project will not alter flows in the Fall River, which is a tributary of the South Platte River.

INSECTS				
Arapahoe snowfly	<i>Capnia Arapahoe</i>	Candidate	Yes	The project does not occur in suitable habitat.

** Water depletions in the South Platt River basin may affect these downstream species

Mexican Spotted Owl

May affect, not likely to adversely affect. The FRE project and adjacent forest is mapped as potentially suitable Mexican spotted owl (MSO) habitat. Surveys for MSO were conducted in the Park including the project area in 2007 and 2008. No MSO were detected in this area or in any of the potentially suitable habitat surveyed in the Park. The most likely habitat for nesting/foraging/ roosting is located outside of the Park in lower elevation areas within Larimer and Boulder counties, where there are some historical observations of MSO. If a breeding pair was discovered in Boulder or Larimer counties, adult or juvenile owls may disperse in late summer into upper elevation areas such as potential habitat in the Park. No MSO have been detected on adjacent National Forest lands for over 11 years. According to the Mexican Spotted Owl Recovery Plan (2012) the closest known MSO nest is south of Interstate 70.

FRE averages 1,500 to 3,400 vehicles per day during the summer months with peak days exceeding 4,000 vehicles. During the heaviest use periods from 9 a.m. to 3 p.m. it is likely that the existing noise is that of heavy traffic at 25 feet (~86 decibels or dBA) and from 6 a.m. to 9 a.m. and 3 p.m. to sunset the noise level is that of light traffic at 25 feet (~62 dBA). MSO in the adjacent habitat would be expected to flush >60% of the time to a distance of 200 feet away between 9 a.m. and 3 p.m. which already renders this area unsuitable for nesting and roosting.

Noise impacts from the project will temporarily remove 42.96 acres from nesting and roosting in the year of construction. Foraging may also be impacted during the construction timeframe but is considered less likely since MSO primarily forage at night when work will not be occurring. Temporary loss of habitat will occur at both the FRE project location and the Sheep Lakes staging area. Habitat loss due to noise was calculated using the known noise level at which MSO flush, the projected noise of construction and sound characteristics such as cumulative noise when multiple sources are combined and the 6 dBA change in noise for every doubling or halving of distance. It is likely that persistent noises are more disruptive than infrequent disturbances, and intensity of disturbance is proportional to noise level (i.e., sound volume). Owls will react to noise by changing behavior and/or flushing from their perches, which in turn may alter nesting and roosting activities. Owls will flush more frequently when noise is closer or louder. At 69 dBA (twice as loud as normal conversation level) MSO will flush >60% of the time.

The specific number and type of equipment that will be used in construction is unknown. For our analysis we assume a backhoe (80 dBA at 50 feet), excavator (80 dBA at 50 feet), dozer (85 dBA at 50 feet), loader (85 dBA at 50 feet) and jackhammer (88 dBA at 50 feet) operating concurrently at the FRE. This configuration of equipment would create ~92 dBA noise level at 50 feet. This level of noise would be expected to flush MSO up to a distance of 800 feet from the FRE project area from 6 a.m. to sunset during the construction period. Temporary loss of habitat at FRE is estimated at 41.63 acres.

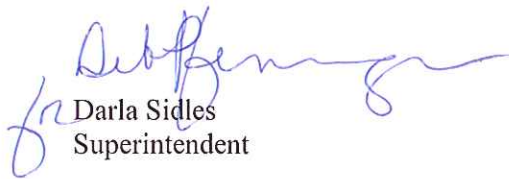
At the Sheep Lakes Staging Area noise is expected to be lower with less machinery operating concurrently and only for the purposes of warming up, parking, delivering and moving materials. For this site we estimate a combined noise level of 87 dBA at 50 feet. This level of noise would be expected to flush MSO up to a distance of 400 feet from the staging area resulting in the temporary loss of 2.87 acres of habitat. However, the Sheep Lakes staging area is also adjacent to Highway 34. Traffic volumes are estimated at the same levels as FRE. Therefore, we estimate that MSO habitat within 200 feet from Highway 34 is already permanently lost for nesting and roosting purposes due to noise impacts. Therefore, the increase in temporary loss of habitat is only 1.33 acres. The total temporary loss of habitat at both FRE and Sheep Lakes is 42.96 acres of the 17,952 acres potentially suitable habitat identified in

the Park. This is approximately 0.24% of parkwide potentially suitable habitat leaving the majority of habitat available and suitable should MSO migrate into the Park.

There will be little increase in habitat fragmentation as a result of this project because the preferred alternative is primarily using the existing entrance station footprint.

We have determined that for all other endangered, threatened, proposed, and candidate species that this project will have no effect. If you have any questions about our analysis or determinations of effect, please contact Mary Kay Watry. She can be reached at (970) 586-1285 or mwatry@nps.gov.

Sincerely,



Darla Sidles
Superintendent

APPENDIX B: SOIL AND VEGETATION PROTECTION MEASURES

Soil and Vegetation Protection Measures Rock Mountain National Park

Purpose

The enabling legislation for Rocky Mountain National Park (RMNP) and National Park Service (NPS) Management Policies require park managers to preserve natural conditions within the park. The following Soil and Vegetation Protection Measures have three purposes:

- to protect the natural environment and preserve natural conditions;
- to reduce the cost of seed collection, plant propagation, outplanting, topsoil restoration, and exotic plant treatments required for native plant restoration once a project is completed;
- to reduce the cost of invasive exotic plant control

Implementation

1. The Contractor shall take every precaution and make every effort to protect the delicate environment of RMNP.
2. The project budget shall include sufficient funds to cover the cost of all restoration work and management of invasive exotic plant species.
3. To the degree possible, the project will be planned to maximize the survivability of salvaged trees and shrubs. Plant salvage will occur in early spring or late fall/early winter during dormancy.
4. Sufficient lead time (as much as one year or more) will be provided for seed collection and propagation of plants for vegetation restoration.
5. Seeding will be scheduled in the fall or spring when soil temperatures are below 50 degrees.

Construction Limits:

1. The construction area limits will be clearly defined, fenced, flagged or otherwise delineated to keep ground disturbance to a minimum.
2. The construction area limits will be clearly defined, fenced, flagged or otherwise delineated prior to beginning ground-disturbing activities to keep ground disturbance to a minimum. To the extent possible, equipment will be kept on hardened surfaces.
3. Turning areas for hauling vehicles shall be approved by the CO and/or Project Manager.
4. Areas to be used for parking and stockpiling material are strictly controlled and will require approval of the CO and/or Project Manager prior to their use by the Contractor.

Equipment

1. Rubber-tired or rubber-tracked vehicles will be used unless specific approval for other types of vehicles has been granted by the Project Manager. This will reduce soil compaction and erosion.
2. Construction equipment not being used shall be parked out of the travel way of roads and trails, or within an approved parking or staging area.
3. Solvents used to clean pavement, tools, etc., shall be carefully used, completely contained at the work site, and satisfactorily cleaned up as may be required.

Clearing and Grubbing

1. Surface boulders to be removed and reinstalled during construction shall be carefully stockpiled with natural face up to protect natural lichen growth. Boulders will be reinstalled in their natural position partially buried at 1/2 to 2/3 of the total boulder height with lichen facing up.
2. Trees to be removed and not salvaged by the park, shall become the responsibility of the contractor and removed from the park.
3. Conserve topsoil around stumps prior to grubbing operations.
4. If stumps are to be left in place, trees should be flush cut to ground level.
5. Care shall be taken to minimize damage to adjacent trees and vegetation during tree removal operations.
6. Furrows created by dragging larger timber away for disposal shall be hand raked to blend with finished grade.
7. Burning of debris within the park will not be permitted. All debris and left over construction materials shall be removed from the park and disposed of in accordance with applicable local, State, and Federal regulations.

Excavation

1. If excavation and/or grading is required, topsoil shall be salvaged and stored in a separate location in accordance with the park's topsoil salvage requirements outlined in the following section. Topsoil refers to the uppermost soil horizon, and natural humus bearing soils, duff, and vegetable matter. The depth of topsoil in the park varies and must be evaluated for each project to determine how much of the topsoil should be saved.
2. Trees and shrubs to be preserved shall be identified prior to construction and protected during construction.

3. Any excavated boulders, subsoil or topsoil that will not be needed for the project are to be removed as soon as possible to minimize damage to underlying vegetation.

Topsoil Salvage

1. Salvaged topsoil will be separated from the sub-soil and stored in windrows no higher than three feet and three feet wide. If possible, the soil will be stockpiled in a disturbed area to minimize the impact to vegetation.
2. If the topsoil is to be stockpiled for several months or longer, it should be planted in a cover crop as specified by the Biologist or Natural Resource Specialist.
3. Vegetation less than 3 feet in height and limbs less than 1 inch in diameter may be incorporated as topsoil in the stockpiles. Conserved topsoil shall consist of natural humus bearing soils, duff, and vegetable mater obtained from the overlying portions of the project excavation and embankment areas. The full depth of topsoil shall be conserved to the degree possible.

Vegetation Salvage

1. A representative from the Division of Resource Stewardship shall clearly identify all plant materials (trees, shrubs, grasses and forbs) to be salvaged prior to the start of construction. Do not disturb these areas until the materials have been harvested or cleared by a Resource Stewardship representative.
2. When salvaging trees and shrubs, as much soil as possible shall be preserved around the roots. Root balls from salvaged trees and shrubs will either be boxed, placed in containers or wrapped in burlap. The plants must be watered to keep the soil moist until they are replanted. Stockpile salvaged trees in a safe area where they can be watered.
3. Salvaged plants will be watered during the first growing season.
4. If sod (typically found in the tundra) will be salvaged at the project site, the sod can be stripped with a backhoe, sod cutter or spade.
 - a. If sod is to be replaced within five (5) days it can placed on materials such as canvas or burlap and stored at the construction site. The sod should be watered and covered to prevent the vegetation from drying out. During hot, dry weather, the salvaged sod must be watered every day.
 - b. Sod that cannot be replanted within five days must be placed into wooden flats lined with three inches of vermiculite and peat and watered daily.

Rough Grading

1. A balance is to be achieved between these competing and equal considerations: (a) the creation of steep cuts and fills to minimize the amount of disturbance, and (b) the creation of flatter cuts and fills to minimize erosion and promote the reestablishment

of vegetative cover. This will help to create micro-habitats and terraces that provide for erosion control and promote native plant establishment.

Finish Grading

1. Once construction is complete, the natural contour of the land is to be restored to the degree possible. Slopes shall simulate the irregularity of the existing terrain.
2. Abrupt angles are to be avoided at the top, toe and ends of newly formed slopes. The top, toe and ends of slopes are to blend in with natural contours. NPS Landscape Architect will provide direction as needed.
3. All earth and rock slopes shall be left with a roughened surface as they are being constructed.

Cut Slopes

- A. Boulders firmly in place and protruding from cut slopes shall be left undisturbed.
- B. All cut slopes shall be sculpted to irregular surfaces preserving segments of large rock outcrops leaving staggered, irregular ledges, shelves, and outcrops with jagged edge appearance and planting pockets suitable for placement of topsoil and plants. NPS Landscape Architect will provide direction as needed.

Fill Slopes

- A. Fill slopes shall be graded to provide an irregular surface with staggered ridges steeper than the nominal slope ratio, staggered ledges, planting pockets, and large boulders exposed above the nominal fill slope.
4. Any soil that has been compacted by traffic or equipment, especially when wet, will be tilled to a minimum depth of 8 to 12 inches to break up rooting restrictive layers, and then harrowed to prepare the required seedbed.

Imported aggregate and soil

1. All imported topsoil and aggregate material must be certified weed free prior to delivery and placement.

Placement of Topsoil

1. Prior to placement of topsoil, prepare the areas as follows:
 - A. Slope ratios of 3:1 or less should be scarified to a nominal depth of 8 to 12 inches. Disking or scarification shall be done in a direction perpendicular to the natural flow of water.
2. Conserved and/or imported topsoil shall be spread a minimum of 4 inches in depth, loose measurement, over all disturbed soil areas. Topsoil is to be replaced without compacting the soil. If topsoil is compacted, it must be scarified to a minimum depth of 4 inches.

3. After spreading has been completed, large clods, loose stones larger than 12 inches, stumps, and large roots shall be removed and disposed of outside the park in accordance with local, county, State, and Federal regulations. Stones smaller than 12 inches which are firmly embedded in the topsoil may be left on the finished slopes.

Erosion Control

1. Temporary erosion control devices or methods shall be used to prevent soil loss, erosion, and migration.
2. Slopes steeper than 3:1 shall be stabilized with erosion control measures.
3. Where permanent stabilization is not installed within 14 days of completion of construction, install erosion control measures on slopes 3:1 and greater. Erosion control measures shall remain in place until permanent vegetation is established.
4. Erosion control devices installed after completion of construction shall be fully biodegradable.
5. Acceptable Erosion Control Products: Use of straw or rice products, including "certified weed free" products, shall not be permitted. Acceptable materials for erosion control blankets and sediment logs include excelsior or coir fiber products. Jute or cotton shall be used as netting in erosion control blankets and sediment logs; plastic netting is not permitted in blankets or sediment logs.

Seeding

1. Planted seed shall be covered with no more than 1/4 to 3/4 inch of soil.

Mulching

1. Division of Resource Stewardship personnel will determine if a project requires the use of mulch. Wood products such as chips should be made about one year before use to allow time for the chips to cure, otherwise they may inhibit vegetation restoration. Mulch spread over a seeded area will cover approximately 75% of the area up to a 1/2 inch depth.

APPENDIX C: DRAFT MEMORANDUM OF AGREEMENT

MEMORANDUM OF
AGREEMENT BETWEEN
ROCKY MOUNTAIN NATIONAL PARK, NATIONAL PARK SERVICE AND
COLORADO STATE HISTORIC PRESERVATION OFFICER,
FOR REDEVELOPMENT OF THE FALL RIVER ENTRANCE

WHEREAS, the National Park Service (NPS) plans to improve the Fall River Entrance Area at Rocky Mountain National Park (Park) by redeveloping (undertaking) the area pursuant to the NPS mission set forth by the Organic Act of 1916 (54 U.S.C. § 100101); and

WHEREAS, the undertaking consists of the removal of the existing kiosks (Buildings 669–671) and office building (Building 353) and construction of new buildings in a similar configuration, removal of flag pole and culvert, installation of new employee and visitor parking spaces, and reconfiguration of road circulation to include additional incoming lanes; and

WHEREAS, NPS has defined the undertaking's area of potential effects (APE) as a 2,325 foot linear alignment, expanding 40 feet on either side of the existing system and proposed alignments; and

WHEREAS, the NPS has determined that the kiosks, office building, flag pole, and natural landscape and small scale site features support the overall eligibility of the Fall River Entrance Historic District (5LR1184) and that the Fall River Entrance Historic District is listed in the National Register of Historic Places and the Colorado State Historic Preservation Officer (SHPO) concurred with this assessment on March 20, 2017; and

WHEREAS, the NPS has determined that a segment of the roadway supports the overall eligibility of the Fall River Road/Highway 34 (5LR885) and that Fall River Road/Highway 34 is listed in the National Register of Historic Places and the Colorado State Historic Preservation Officer (SHPO) concurred with this assessment on September 12, 2017; and

WHEREAS, the NPS has determined that redevelopment of the Fall River Entrance Area will have an adverse effect on the Fall River Entrance Historic District and the Fall River Road, and has consulted with the Colorado SHPO pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (54 U.S.C. § 100101); and

WHEREAS, NPS has consulted with the Arapaho Tribe of the Wind River Reservation, Wyoming; Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation, Montana; Cheyenne and Arapaho Tribes, Oklahoma; Comanche Nation, Oklahoma; Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana; Shoshone Tribe of the Wind River Reservation, Wyoming; Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado; Ute Indian Tribe of the Uintah and Ouray Reservation, Utah; and Ute Mountain Tribe of the Ute Mountain Reservation, Colorado, New Mexico, and Utah participated and each have been invited to concur in this Memorandum of Agreement

(MOA); and

WHEREAS, the NPS has provided the Advisory Council on Historic Preservation the opportunity to comment on this project and the Advisory Council has declined to participate in the process; and

NOW, THEREFORE, the NPS and Colorado SHPO agree that the project shall be implemented in accordance with the following stipulations:

I. STIPULATIONS

NPS shall ensure that the following measures are carried out:

A. Professional Qualifications

NPS shall ensure that archeological work conducted pursuant to this agreement is carried out by, or under the direct supervision of, a person or persons meeting the minimum appropriate qualifications set forth in the Secretary of the Interior's Professional Qualification Standards (36 CFR 61, Appendix A).

B. Minimization of Adverse Effects

NPS shall conduct cultural resource awareness training for staff and contractors involved in redevelopment activities.

C. Mitigation of Adverse Effects

1. The NPS will complete a context study for the Fall River Entrance to include a developmental history of the entrance beginning with the construction of the first Fall River Entrance in the 1920s. The park's eastern boundary was revised several times which resulted in the relocation of the Fall River Entrance at least four different times. This will include information on the entry kiosk architectural style.
2. The NPS will complete a revised National Register Nomination for the Fall River Entrance Historic District to reflect project related impacts.
3. The NPS will use the information gathered from the context study to develop a new interpretive wayside at the Sheep Lakes overlook. The wayside will depict the developmental history of the Fall River Entrance and include historic photographs of the entrance station; including a photograph of the Fall River Entrance when it was located at Sheep Lakes. The SHPO will review the proposed location and interpretive waysides prior to installation.
4. The NPS will rehabilitate the historic parking area and road curbing built by the Civilian Conservation Corps (CCC) as part of the 1930s entrance station. The rehabilitation activities will follow the Secretary of the Interior's Standards for the Treatment of Historic Properties. The SHPO will review the rehabilitation plans prior to approval.
5. The above actions will be completed in consultation with the SHPO. All documentation will be submitted to SHPO for review and comment prior to approval.

D. Inadvertent Resource Discoveries

If previously unknown archeological resources are discovered during ground disturbing activities, all work in the immediate vicinity of the discovery will be halted and the procedures of 36 CFR Part 800.13[b] will be followed. In the unlikely event that Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony are discovered, all work in the immediate vicinity of the discovery will be halted and the procedures of 43 CFR § 10.3 will be carried out including taking immediate steps to protect the discoveries in situ, notification of the eleven aforementioned tribes, tribal consultation, and the development and execution of a Plan of Action.

II. DISPUTE RESOLUTION

Should any signatory or concurring party to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, NPS shall consult with such party to resolve the dispute. If the signatories cannot agree regarding a dispute, the NPS or Colorado SHPO may request the participation of the Advisory Council to assist in resolving the dispute. Any recommendation or comment provided by the Advisory Council will be understood to pertain only to the subject of the dispute. The NPS's responsibility to carry out all actions under this Agreement that are not the subjects of dispute will remain unchanged.

At any time during implementation of the measures stipulated in this Agreement, should a member of the public raise an objection to any such measure, the NPS shall take the objection into account and consult as needed with the Colorado SHPO.

III. AMENDMENT OF AGREEMENT

The Agreement may be modified by amendment at any time by mutual concurrence of all parties. Amendment of the Agreement, as necessary, shall be accomplished in the same manner as the original agreement. Amendments will be in writing and approved by the original signatories or their designated official.

IV. TERMINATION OF AGREEMENT

Either party to this Agreement may terminate it by providing thirty (30) calendar days' notice to the other party, provided that the parties will consult during the period prior to termination to seek agreements on amendments or other actions that would avoid termination. In the event of termination by the SHPO, the NPS will request the comments of the ACHP, in accordance with 36 CFR Part 800.7[a].

V. ANTI-DEFICIENCY ACT

All actions taken by the park in accordance with this MOA are subject to the availability of funds, and nothing in this MOA shall be interpreted as constituting a violation of the Anti-Deficiency Act.

V.I. REPORTING

The park will report annually to the CO SHPO as to the actions taken to fulfill the terms of the MOA.

VII. TERM OF AGREEMENT

This Agreement shall become effective after the date of the last signatory. The Agreement shall be null and void if its terms are not carried out within five (5) years from the date of its approval by the Park and SHPO, unless the signatories agree in writing to an extension for carrying out its terms. Otherwise, this Agreement shall become null and void when the project is complete, and all of the above stipulations are fulfilled. The Agreement and any amendments shall be binding upon the parties, their successors, and assigns.

Execution of this Agreement by the NPS and the Colorado SHPO, its subsequent acceptance by the Council, and implementation of its terms, evidences that the NPS afforded the Council an opportunity to comment on the project and its effects on historic properties, that the NPS has taken into the account the effects of the undertaking on historic properties, and that the NPS has satisfied its Section 106 responsibilities for the project referenced in this Agreement.

**MEMORANDUM OF AGREEMENT
REDEVELOPMENT OF THE FALL RIVER ENTRANCE**

Signatories

National Park Service

By: _____ Date: _____
Darla Sidles
Superintendent, Rocky Mountain National Park

Colorado State Historic Preservation Office

By: _____ Date: _____
Steve Turner
State Historic Preservation Officer



As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical 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 by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

NPS ROMO 121/142814 June 2018

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