



**National Park Service  
U.S. Department of the Interior**

**Mount Rainier National Park  
Regions 8, 9, 10 and 12**

**FINDING OF NO SIGNIFICANT IMPACT  
Fryingpan Creek Bridge Replacement**

Recommended:

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Greg Dudgeon  
Superintendent, Mount Rainier National Park

Date

Approved:

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David Szymanski  
Regional Director, Interior Regions 8, 9, 10 and 12, National Park Service

Date

# 1. Introduction

In compliance with the National Environmental Policy Act (NEPA), the National Park Service (NPS), in cooperation with Federal Highway Administration (FHWA), prepared an Environmental Assessment (EA) to examine alternative actions and environmental impacts associated with the proposed project to replace the Fryingpan Creek Bridge in Mount Rainier National Park (the park). The purpose of the project is to replace the Fryingpan Creek Bridge with a structure that meets current structural and safety standards and provides long-term safe access for park administration and the visiting public. The bridge is a part of the 15-mile Sunrise Road, historically named the Yakima Park Highway. The road is vital to park operations, local economies, and visitor use and enjoyment. The Sunrise Road serves as the sole vehicular access to the popular Sunrise area (the second busiest area in the park) and is a primary destination for visitors coming from the greater Seattle and Yakima metropolitan areas. Sunrise Road also provides access to the White River Campground and popular park wilderness trails, including the historically significant Wonderland Trail. The proposed project is needed to address the findings in FHWA's bridge inspection reports. The project has been designed and will be implemented to protect the park's important natural and cultural resources, provide sustainable administrative and visitor access, and reduce long-term maintenance costs.

The statements and conclusions reached in this finding of no significant impact (FONSI) are based on documentation and analysis provided in the Fryingpan Creek Bridge Replacement EA and associated decision file. To the extent necessary, relevant sections of the EA are incorporated by reference below.

**Figure 1. Location of Fryingpan Creek Bridge in Mount Rainier National Park**



## 2. Selected Alternative and Rationale for the Decision

Based on the analysis presented in the EA, the NPS, with support from the FHWA, has selected Alternative B – New Bridge on a New Alignment Downstream of Existing Bridge (the NPS preferred alternative). The selected alternative incorporates the mitigation measures and best management practices (BMPs) listed in attachment A. As a result of public comment, modifications were made to a few of the figures, an additional figure was added, and additional text was added to the dismissal language in appendix A of the EA (see attachment B). Additional changes to the proposed trailhead parking area design were also made in response to public comment and consultation with the US Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), and the Washington State Historic Preservation Office (SHPO). These changes will result in the same or reduced impacts from what is described in the EA and are discussed below.

Under the selected alternative, a new longer permanent bridge will be constructed approximately 50 feet downstream from the existing bridge. The bridge will be approximately 220 feet long with a waterway opening of 207 feet from face-of-abutment to face-of-abutment on the new alignment, allowing the bridge to span the 100-year floodplain and the abutments be located outside of the ordinary high water mark. The new longer bridge and abutment locations will expand the channel migration zone and floodplain under the bridge crossing, which is currently constricted by the existing bridge abutments. The new bridge will be approximately 92 feet longer than the existing bridge. Construction activities to access, excavate, install new, and remove existing bridge components will encroach into the active waterway.

The new bridge will be a single-span bridge constructed of steel and concrete with stone facing on portions of the bridge abutments. It will be 33-feet-wide and have two 10-foot travel lanes with 2-foot-wide shoulders on each side. There will be one 5-foot-wide pedestrian sidewalk on the south (upstream) side with a 9-inch stone curb. This design will comply with Architectural Barriers Act (ABA) requirements for sidewalks. Railings will be installed on both sides of the bridge. The railings will be steel and will be designed for visibility through the railing for drivers and pedestrians while maintaining design compatibility with the Mount Rainier National Historic Landmark District (NHLD).

The stone facing on the abutments of the existing bridge will be salvaged for the construction of stone masonry features on the new permanent bridge. On the new bridge, the walls extending from the end of the bridge along the road will be stone veneer. The top and inside of the walls will be veneer, and the outside walls will be finished with form-lined concrete. The wing walls below the driving surface of the bridge will be form-lined concrete. The form-lined concrete will be shaped to resemble the existing stone veneer. The bridge will be designed to ensure compatibility with the Mount Rainier NHLD to the greatest extent practicable.

Stone riprap will be placed at the base of the new bridge abutments to protect the abutments from scour and erosion. Although the proposed bridge length will allow for the bridge abutments to be placed completely outside the floodplain and the active Fryingpan Creek channel, the riprap will be placed adjacent to the channel for scour protection. Woody debris will be placed downstream of the

riprap to reduce the energy of the flow and provide protection of the channel banks while also providing improved aquatic habitat within Fryingpan Creek.

Building a new bridge slightly downstream will require modifying the historic alignment of Sunrise Road at the east and west approaches to the bridge; however, the realigned portion of the roadway will be designed to blend into the existing roadway. Historic roadside rock barriers will be moved during construction and placed along the new road alignment when construction is complete.

The existing roadside parking area will be eliminated during the construction of the new alignment. A new parking area will be established on the west side of the bridge to provide consolidated parking near the existing Summerland Trailhead to replace parking that will be demolished during the construction of the new road alignment. The new parking area will use part of the current road alignment and will also expand into the adjacent roadside forest. The size of the new parking lot has been modified to limit disturbance to the adjacent forest and floodplain while providing improved parking and accessibility for visitors. The new parking area will be separated from the roadway, will provide ABA-accessible sidewalks and parking spaces, approximately 30 designated vehicle parking spaces, and will also include motorcycle parking and a bicycle rack. The new parking area will improve safety by removing parking spaces that require backing into the road and the need for pedestrians to cross the road to access the bridge or trailhead from the designated parking area. The design shown in figure 5 of the EA (page 10) has been modified to avoid or minimize impacts on park resources and to meet budget requirements. Informal parking along the roadway on the west side of the bridge will be eliminated. A retaining wall and an ABA-accessible sidewalk will surround the parking area. Other improvements in this area include installing a restroom facility or vault toilet adjacent to the parking area and replacing the interpretive signs at the trailhead. These features may be constructed over time as funding is available. On the east side of the bridge, approximately five parallel parking spaces will also be provided.

## **Construction Activities**

Construction activities for the selected alternative will be completed in three phases: preconstruction phase (geotechnical investigations and tree clearing), construction phase (bridge construction, existing bridge removal, roadway construction, parking area construction), and the post-construction phase (restoration, revegetation, and monitoring of disturbed areas). After the pre-construction phase, it is anticipated that the selected alternative will require two to three construction seasons to complete. Construction will occur during snow-free periods (spring, summer, and fall). All construction is estimated to take 4 to 5 seasons. Uncontrollable or unpredictable events, such as early fall snowstorms or unusually deep snowpacks in the spring could shorten the construction season, which may result in a longer overall construction period for the project. In-water work would occur between June 15 and August 15, dates inclusive, over an estimated three seasons. See attachment C for a detailed sequence of the construction activities. Minor adjustments to the project may occur during the final design and construction phase if needed to ensure that adverse impacts to park resources are avoided or minimized, accommodate findings from geotechnical investigation performed during the preconstruction phase, and to comply with permit requirements. If changes would result in impacts greater than what is identified in the EA and associated FONSI, additional

environmental analysis and consultation are required and would be completed prior to implementing such a change.

### **Preconstruction Phase**

Preconstruction work is planned to occur over two fall seasons. Geotechnical investigations (subsurface drilling) at the new alignment location will be done during the first year to obtain information on geological properties to finalize the bridge abutment and retaining wall locations and construction details. The geotechnical investigation work will take approximately 10 weeks and will be scheduled between September (after Labor Day) and November. No more than 16 boreholes will be needed, eight on each side of the creek for the abutments. The total borehole depths will not exceed 160 feet. Up to four additional boreholes will be needed in the proposed parking area.

Sediment and erosion controls will be installed prior to the start of the geotechnical investigations. To provide a passable trail to the boring locations, a path will be cleared for the drill rig by removing vegetation and leveling uneven ground using a backhoe, tracked excavator, or bulldozer. After the investigation is complete, the area will be stabilized by re-contouring, and as appropriate, mulching and/or seed-broadcasting the disturbed areas to prevent erosion.

Construction workers and supervisors will be informed of the occurrence and status of special status species (including federally listed species) that may be present in the project area and will be advised of the potential impacts on the species and potential penalties for taking or harming a special status species. Contract provisions will require the cessation of construction activities if a special status species is discovered in the project area and until appropriate park staff re-evaluates the project. The contract will allow modification to include protection measures determined necessary to protect the discovery as required to comply with the requirements of the Endangered Species Act (ESA). The contractor will be required to keep all waste and contaminants contained and remove them daily from the work site. Food and other wildlife attractants will be contained to minimize risk of attracting nest predators (i.e., corvids). Feeding or approaching wildlife will be prohibited. A litter control program will be implemented during construction to eliminate the accumulation of trash and all food items will be stored inside vehicles, trailers, or wildlife-resistant receptacles except during actual use to prevent attracting wildlife. These measures apply to all project phases.

During the second year, any remaining trees within the 2.3-acre clearing limits that were not removed for the geotechnical investigations will be removed between October 1 and March 14 (outside of the nesting season for northern spotted owl (*Strix occidentalis caurina*), marbled murrelet (*Brachyramphus marmoratus*), and birds protected under the Migratory Bird Treaty Act) to prepare for construction, which will begin the following spring. Vegetation outside of the areas that will become impervious surfaces (road and parking areas) will be retained to the greatest extent practicable. Removal of specimen trees – those that are a focal point of the landscape – and trees with a diameter at breast height (DBH) of 18 inches or more will be avoided where feasible. No more than 925 trees total will be removed. Approximately 72 living trees and two dead trees between 18 inches and 40 inches DBH and up to six trees greater than 40 inches DBH will be removed. Any hazard trees identified during construction will be removed following park management plans. Felled trees

over 18 inches DBH will be left on-site or placed as large woody debris within a river or stream upon completion of construction to meet the objectives of the site restoration plan, consistent with the surrounding forest and as described in terms and conditions established through Section 7 consultation.

Standard BMPs for weed control methods will be implemented to minimize the introduction or spread of noxious weeds. To avoid transport of nonnative species to the project area, all construction vehicles will be washed and inspected prior to use.

## **Construction Phase**

All material sources and materials, such as topsoil and fill, incorporated into the work area will be certified to be free from noxious weeds, invasive plants, and other deleterious materials by a federal state, or local public agency. Commercial certifications may be acceptable if materials have been certified through the North American Weed Free Forage Program standard or a similarly recognized certification process. Certifications must include comprehensive lists of introduced plant species located at the material source site. All certifications will be evaluated by park vegetation specialists for approval. All fill and excavated materials will be tarped when stockpiled to reduce potential for invasive species establishment. Ground protection mats, or similar, will be placed in the construction areas to reduce trampling impacts on vegetation from heavy machinery, when possible. During and after construction and following revegetation, restored areas will be monitored and managed to prevent colonization by nonnative invasive species. Vegetation will be monitored and managed to maintain 75% survival in the first 2 years and 50% survival thereafter. Dead plants will be replaced to achieve the percent survival objectives. If hydroseeding is used, a native seed mix approved by the NPS plant ecologist will be used. These measures apply to all project phases.

### **Bridge Construction**

During construction of the new bridge and roadway alignment, the existing Fryingpan Creek Bridge will be retained to allow for continued visitor and staff access to the Sunrise area; however, once construction of the new bridge is complete, the existing bridge and roadway will be removed and rehabilitated.

The construction of the new bridge will begin in the spring following completion of preconstruction activities. The bridge construction will include site preparation, construction of temporary supports for the new bridge, abutment construction, installation of steel girders, and bridge deck construction.

Site preparation will include installing additional sediment and erosion controls, staking the limits of the project area, and earthwork to remove remaining vegetation (shrubs and herbaceous vegetation) and bedrock to the extent necessary to support construction. Following site preparation, equipment and materials will be moved into designated staging areas, and traffic control mechanisms will be set up.

Construction zones will be identified and fenced with construction fencing or similar material prior to any construction activity. The fencing will define the construction zone and confine activity to the

minimum area required for construction. All protection measures identified in this document will be clearly stated in the construction plan specifications and workers will be instructed to avoid conducting activities beyond the construction zone as defined by the construction zone fencing. Construction activities will be limited to daylight hours.

Fugitive dust generated by construction will be controlled by spraying water on the construction site, if necessary. Vehicle speed on unpaved roads will be limited to further reduce the generation of fugitive dust. To reduce air pollution and noise, construction equipment and vehicles will be well-maintained and properly functioning and equipment idling will be limited to only what is necessary for safety and/or mechanical reasons. Equipment and vehicles will also be checked regularly for leaking oil and fluids.

Confinement techniques (e.g., temporary containment barriers, debris shields) will be used during the removal of the existing bridge and portions of the existing road to prevent construction debris (including lead-based paint) from entering Fryingspan Creek and the surrounding environment. At the end of each day, the active construction zone will be left in a state that minimizes the obstruction of wildlife movement through the area (i.e., covering holes) and avoids unintentionally attracting wildlife.

To minimize the amount of ground disturbance, staging and stockpiling areas will be in previously disturbed sites, including the roadway and gravel pullouts. This includes the existing Summerland Trailhead parking area, one lane of the Sunrise Road within the project limits, and a gravel pullout near the NPS maintenance area. Staging and stockpiling areas will be restored to pre-construction conditions following construction. Additional paved or graveled roadside pullouts may be used for staging if necessary and subject to park approval. These additional staging areas will not occur at other trailheads. To maintain site security, facilitate construction, and support worker and visitor safety, visitors will not be permitted within the construction area. Access to the Summerland Trail from the Fryingspan Creek Bridge parking area will be closed during bridge construction. Visitors will be directed to alternate trail access points to avoid the active construction area. The closest alternate access to the Wonderland Trail with connectivity to Summerland is the roadside access on Sunrise Road approximately 0.75 mile to the northwest of the Fryingspan Creek Bridge Summerland Trailhead parking area.

One lane of Sunrise Road will remain open during bridge construction via the existing roadway. Traffic delays of 20 to 30 minutes will be necessary during construction to accommodate one-way traffic. Short-term closures may be needed at additional times for site safety, including during the setting of bridge girders and any blasting activity, if required. Additional closures may be authorized during the shoulder seasons (before Memorial Day and after Labor Day) if needed to minimize the overall number of years for project construction. The park will inform the public, concessioners, and other interested parties of delays and closures through various means and media.

Blasting may be required to complete construction due to shallow bedrock in the project area. Heavy equipment will be used to excavate and remove the bedrock to the maximum extent practical, but whatever cannot be completed with these methods will require blasting. The need for blasting will be

determined based on results of geotechnical investigations; blasting will be minimized to the extent possible. It is anticipated that blasting will be primarily in the vicinity of the new bridge abutments and parking area expansion but could include other portions of the project area. If needed, blasting will occur between June 15 and August 15 during early earthwork to access the bridge footings. This would include approximately two blasts per day for a total of up to ten blasts (this number will be further refined based on the results of the geotechnical investigations). Blasting will not occur in-water; however, some debris may be dislodged adjacent to Fryingpan Creek and inadvertently fall into the water. To reduce impacts, blast mats will be laid over the top of the shot to prevent flyrock and other debris from moving toward the creek and to disperse some of the sound from the blast. All pile driving and blasting activities will begin with a “soft start” to give juvenile and adult fishes in the area a chance to swim away from the noise. Blasting may be proceeded with an airgun or airhorn used several times.

Any construction activities proposed below the ordinary high-water mark (OHWM) (referred to as “in-water work”) of Fryingpan Creek will take place in work zone isolation areas. The OHWM is the line present on the shore established by the presence and action of water where the characteristics (e.g., soil, vegetation, presence of litter/debris) are visibly different from those of the upland area beyond it. All blasting and in-water work will be conducted within the in-water work window for bull trout (*Salvelinus confluentus*), between June 15 and August 15. In-water work is expected to occur over three seasons for a maximum of 180 days. Block netting will be installed prior to in-water work to exclude fish from the work area, and fish will be removed from within the netting.

Fish will be removed from work exclusion areas prior to dewatering or as it is slowly dewatered with methods such as hand or dip-nets, seining, or trapping, consistent with measures identified through the ESA Section 7 consultation process. Fish capture will be supervised by a qualified fisheries biologist with experience in work area isolation and competent to ensure the safe handling of all fish. Fish capture activities will be completed during periods of the day with the coolest air and water temperatures possible, normally early in the morning to minimize stress and injury of species present. Staff will install block nets above and below the project area and will conduct fish removal with seine and kick nets first, and then electrofishing if necessary. Electrofishing will not be conducted if naturally occurring high turbidity limits the visibility of fish. Electrofishing will be discontinued immediately if fish are killed or injured. Machine settings will be checked and adjusted for water temperature and conductivity as needed. Captured fish will be kept in water to the maximum extent possible during relocation activities. They will be kept in cool, shaded, aerated water protected from excessive noise, jostling, or overcrowding. Fish will not be removed from this water except when released. If buckets are used to transport fish, staff will minimize the time fish are in a transport bucket. Buckets will be kept in shaded areas or covered with a canopy. Staff will limit the number of fish within a bucket and will ensure that fish are of a comparable size to minimize potential for predation. Aerators will be used, or water will be replaced in the buckets at least every 15 minutes with cold clear water. Staff will release fish in an area upstream with adequate cover and flow refuge. Downstream release may also occur provided it is outside of the area influenced by construction activities. Water from within the isolation zone will be pumped and discharged to an upland location for infiltration to prevent turbid water from entering Fryingpan Creek.



Wetlands will be avoided to the extent possible. Silt fencing will be installed around wetlands prior to construction to minimize impacts on wetland soils and vegetation from heavy equipment. Soil erosion and sediment control will be managed through the implementation of BMPs and compliance with the National Pollutant Discharge Elimination System Construction General Permit administered by the US Environmental Protection Agency. Erosion and stormwater runoff will be mitigated through measures such as sediment traps, silt fences, and regular inspection of construction areas for erosion as included in permits. A construction spill prevention, control, and countermeasures plan or other suitable plan will be developed and implemented. Heavy equipment hydraulic fluid lines will be filled with biodegradable hydraulic oil alternatives. Non-plastic biodegradable materials will be used for construction best management practices, such as coir logs and fiber rolls. Permanent standard geotextile will not be placed on site.

Temporary isolation work zones will be required to install piles to support temporary work platforms for bridge construction. Two work zones will be isolated with supersacks (heavy-duty bulk bags that will be placed to create a berm) and dewatered. A grouping of four temporary steel piles will be installed (via impact hammer) for each work zone. Once the above-water structure is constructed, the supersack berms will be removed and water will resume flowing around the piles throughout construction. This process will be repeated to deconstruct the platforms and remove the piles by crane. Supersacks will be filled with clean/washed gravel that is appropriate for later streambed material to minimize turbidity and potential introduction of invasive species. AquaDams will not be used as an alternative isolation practice to avoid potential for heated water input into Fryingspan Creek. Stream crossings and in-stream work will be minimized to the extent possible.

Temporary isolation work zones will also be required for bridge abutment construction and demolition. To create a dewatered isolation work zone, a diversion berm will be constructed in the water around the proposed work sites using supersacks or a cofferdam placed via an excavator or similar heavy equipment.

All diversion berms will be installed at the beginning of the in-water work window between June 15 and August 15, dates inclusive, to minimize impacts on affected species and will be removed before the in-water work window ends each season. Once the berms for an isolated work zone are installed, the work zone will be dewatered. The water will be pumped and discharged to an upland location for infiltration to prevent turbid water from entering the waterway. The pump intake will be screened with mesh sized to prevent the unintended intake of fish at any life stage to comply with [National Marine Fisheries Service Juvenile Fish Screen Criteria for Pump Intakes](#). Turbidity will be monitored during in-water work in accordance with the Clean Water Act 404 Permit and 401 water quality certification and to fulfill the terms and conditions included in ESA Section 7 consultation. Work will be stopped if the turbidity exceeds the limits set by permitting requirements.

When working in the active channel, turbidity monitoring will occur at 300 feet downstream of construction. Monitoring will ensure turbidity does not exceed 10 nephelometric turbidity units (NTU) over background when the background is 50 NTU or less; or A 20 percent increase in turbidity when the background turbidity is more than 50 NTU. If either threshold above is exceeded, work will stop until turbidity falls below thresholds.

The isolation zones will be reinstalled the following year no earlier than June 15, assuming the isolation zones are below the OHWM. This will occur each year until construction is complete. At the end of the in-water work window, all equipment will be removed from the creek, and the diversion berms will be carefully disassembled. During berm removal, the work zones will be slowly rewatered and monitored to prevent sediment discharge. The only items to remain through the winter between construction seasons will be the bridge supports. Each temporary isolation work zone may require up to four creek crossings with tracked equipment (excavator or similar) before being dewatered.

Equipment stationed in the dewatered work zones that cannot be readily relocated (i.e., pumps and generators) will be kept in place and refueled or serviced in a designated, protected area to reduce threats to water quality from vehicle fluid spills. Designated areas will not directly connect to groundwater, surface water, or the storm drain system. The service area will be designated with berms, sandbags, or other barriers. Secondary containment, such as a drain pan, to catch spills or leaks will be used when removing or changing fluids. Fluids will be stored in appropriate containers with covers and properly recycled or disposed of offsite. No fuel storage containers will be allowed on the project site. Fuel will be delivered to the site only in pick-up trucks designed for fuel hauling, but it will not otherwise be stored on site.

Prior to the construction of the new bridge abutments, shoring (temporarily propping up) of the existing bridge may be required during excavation and construction. Shoring will keep the existing bridge stable and allow it to remain open to traffic during construction. Constructing new deeper foundations and bridge abutments (2 to 4 drilled shafts per abutment), placing concrete pile caps on top of drilled shafts, installing riprap at base of abutments for scour protection, and demolishing the existing bridge foundations/abutments will occur within the isolation work zones. Upon completion of the abutments, the steel girders will be erected, and the bridge deck constructed.

Fryingpan Creek will flow in its channel around the work zones during construction to allow for aquatic organism passage and turbidity will be monitored as previously described. Upon completion of the new bridge, the area around the new abutments will be rewatered and the water diversions will be removed. All work in the channel, including water diversion removal, will occur during the in-water work window.

### **Roadway Construction**

Roadway construction will include replacing the culverts, placing and compacting the road base, asphalt paving, line striping, and sign installation. There are five culverts located along Sunrise Road within the project area that convey water under the road. These culverts will be replaced with larger culverts to improve site drainage. Culvert D west of Fryingpan Creek is a stream-bearing feature and will be replaced during the project's established in-water work window. The remaining culverts (culverts A, B, C, and E; see figure 4 on page 9 of the EA) are cross culverts (carrying stormwater drainage only) and can be replaced at any time during construction. Although these five culverts are not fish bearing, they could provide aquatic organism passage. Because of this, exclusion and trapping will be conducted per state and federal guidelines, as applicable. Since the culverts to be

replaced are in intermittent streams and ditches, culvert construction work will occur when these features are not watered, if possible, to minimize impacts on water quality. If flowing water is present, the culvert will be isolated and dewatered. This will require the installation of sandbag berms placed by hand or with the aid of tracked construction equipment operating from outside the stream. Sandbags will be filled with streambed/bank material from the work zone to limit the potential introduction or spread of invasive plants from outside sources. This material will be restored to its original location post-construction.

Once the berms are installed and the park has performed aquatic species trapping/relocation (if needed), the work zone will be dewatered and water from within the isolation zone will be pumped and discharged to an upland location for infiltration to prevent turbid water from entering the waterway. If flowing water is present, turbidity will be monitored. The asphalt will then be cut (if needed), the old culvert excavated and removed, and the new culvert installed. The historic headwalls associated with the culverts will be modified in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* to accommodate the larger culverts and maintained or rebuilt to preserve these contributing elements to the historic Sunrise Road. The repair of culvert headwalls will be in kind and includes repointing and resetting of stone, as needed. Repointing and resetting the stone will consist of relaying the original stone and completing masonry work, matching color, joint width, and orientation. Once work below the OHWM is complete in each location, the isolation work zones will be disassembled and slowly rewatered and monitored to prevent sediment discharge.

Approximately 930 feet of the existing roadway will be realigned (340 feet on the east approach and 590 feet on the west approach). The roadway construction activities will include construction of supporting walls and slope stabilization, grubbing and grading the road corridor, placement of base materials for the road surface, road paving, and installation of guard walls. The project includes new asphalt surface matching the existing pavement width. Existing asphalt pavement and base material will be removed by a cold milling process, followed by sweeping. A course of recycled aggregate base using asphalt concrete pavement millings and recycled aggregate from the existing pavement structure will be placed and then compacted with a vibratory or compression roller. Asphalt concrete mix will be applied in lifts using typical paving equipment and rollers. The aggregate base will be improved where needed to allow for better roadway performance. The final steps will include striping the road lanes and installing signs.

After the new alignment is constructed, the old roadway approaches will be obliterated and restored through recontouring and revegetation to match native ground to the extent practicable. Asphalt and other materials will be properly disposed of outside the park.

### **Existing Bridge Removal**

After the new bridge and road construction are completed, isolation work zones and debris containment zones will be established around the existing bridge abutments. It is estimated that the existing stone on the bridge is approximately two feet thick. Prior to removal of the stone, shoring of the existing abutment may be required to ensure that the abutment remains stable during stone

removal. The existing bridge, including the steel and masonry, will be dismantled and material will be recycled or reused to the extent practicable. Excavation will be needed below the existing footings to remove the abutments. The holes in the stream will be backfilled and the area restored with naturally occurring stream material. The isolation work zones will be removed upon completion of the bridge removal. Water diversion will be removed, and the work zone rewatered. All work in the channel, including water diversion removal, will occur during the in-water work window.

### **Trailhead Parking Area Construction**

The new parking area construction will be similar to roadway construction and will meet applicable accessibility requirements. Following any required blasting, the area for the new parking will be grubbed and graded. Supporting walls and stabilizing slopes will be constructed as appropriate to control runoff and erosion. A base material will be laid for the parking area surface. The guard walls, guard rails, drainage, concrete curb, and sidewalks will be installed. The parking area will then be paved and striped, and signs installed. The parking area construction will also include work to install an accessible toilet facility and interpretive signs or seating areas, pending the final design. This work may be completed in phases based on site constraints and funding availability.

### **Post-Construction Activities Phase**

After construction, disturbed areas will be restored, recontoured, and revegetated. The disturbed areas will be revegetated using native materials and appropriate techniques. Site preparation for revegetation will include surface mulching and vertical mulching, as appropriate, reusing topsoil, logs, and other materials harvested from the site when possible. Revegetation efforts will strive to reconstruct the natural spacing, abundance, and diversity of native plant species using native species. All disturbed areas will be restored as nearly as possible to natural conditions after construction activities are completed. Boulders or other structures will be placed to prevent parking outside of designated parking areas. These boulders will be placed in similar locations and will have a similar look to the historic boulder alignments along the Sunrise Road corridor. Annual monitoring and reporting to regulatory agencies associated with the project will be completed.

### **Rationale**

Alternative B was selected because it best meets the project purpose to replace the Fryingpan Creek Bridge with a structure that meets current structural and safety standards, provides long-term safe access for park administration and the visiting public, protects the park's important natural and cultural resources, and reduces maintenance requirements. Although the replacement will require short- and some long-term adverse effects associated with vegetation removal and grading to construct a longer bridge on a modified alignment, the new bridge will be constructed to place the abutments outside of the current Fryingpan Creek channel and floodplain, and above the OHWM and will eliminate an artificial constriction in the channel that is currently impacting the hydrological processes of Fryingpan Creek. Placement of the new bridge abutments outside of the active channel will also reduce the potential for scouring of the abutments to occur, increase the sustainability of the

bridge structure, and support long-term improvements to the critical aquatic habitat present in Fryingpan Creek, including important spawning habitat for the federally listed bull trout.

The selected alternative will require removal of the historic Fryingpan Creek Bridge; however, the new bridge design will be compatible with the Mount Rainier NHL and will incorporate salvaged stone masonry from the original bridge into the new structure. The selected alternative will also result in improved visitor access to the Summerland Trailhead through construction of a new parking lot adjacent to Fryingpan Creek Bridge to replace the current parking area across the street from the trailhead that is undersized, does not meet accessibility requirements, and requires vehicles to back into the Sunrise Road when leaving the parking area. The new bridge on a new alignment will result in a safer road corridor for people accessing the trailhead, will include an accessible pedestrian crossing of the Fryingpan Creek Bridge, and will include an accessible route to the trailhead and adjacent parking area. For these reasons, alternative B is the selected alternative.

### **3. Mitigation Measures**

The Fryingpan Creek Bridge Replacement project includes mitigation measures identified in the EA and through consultation to fulfill the requirements of the National Historic Preservation Act (NHPA), the ESA, and the Clean Water Act. These measures are considered part of the selected alternative and will be implemented to avoid or reduce impacts on park resources and values. The National Park Service has the authority to implement the mitigation measures presented in attachment A under the Organic Act, the NHPA, the ESA, the Clean Water Act, and NPS *Management Policies 2006*.

### **4. Other Alternatives Considered**

In addition to the selected alternative, the EA analyzed two other alternatives and their impacts on the environment: Alternative A, the No Action Alternative; and Alternative C, Building a New Bridge on the Existing Alignment.

#### **Alternative A: No Action Alternative**

The no-action alternative describes current management of the bridge carried into the future. This alternative represents current conditions and is also a baseline for comparison of the action alternatives. Under the no-action alternative, routine maintenance activities would have continued, but no major repairs would have been conducted. Maintenance activities would have included routine road and parking area maintenance; pavement marking/stripping; vegetation maintenance; and bridge maintenance, including removing debris, cleaning and painting structural steel elements, replacing damaged decking, curbs, and railing system components, and periodic replacement of riprap at the bridge abutments to prevent undermining. The Fryingpan Creek Bridge is currently safe to drive on, and under the no-action alternative, the bridge would have continued to be inspected annually for safety. Without structural and design corrections, roadway bridge deterioration would have continued to escalate. It is reasonable to assume that the bridge would have reached a state where loads, including emergency or firefighting vehicles, would have been restricted. Future catastrophic failure

of this bridge would have been more likely under this alternative, which would have resulted in closure of the road and loss of access to the Sunrise and White River areas and other recreational resources.

### **Alternative C: Building a New Bridge on the Existing Alignment**

Under alternative C, a new bridge would have been constructed on the existing alignment. The overall alignment of the new permanent bridge would have matched that of the existing bridge, but the new bridge would have been wider (33 feet compared to 31 feet) and approximately 50 feet longer with a span of approximately 181 feet. This longer span would have limited constriction of the waterway and limited floodplain disturbance; however, due to the existing road alignment, the span could not have been made wide enough to completely remove the abutments from the floodplain at this location. The new bridge would have been similar in design, materials, and width to the selected alternative. The primary differences in the bridge in the selected alternative and alternative C are the length and alignment. The finish stone veneer and form-lined concrete for the new bridge would have been the same as described for the selected alternative. The new bridge would have been designed to ensure compatibility with the Mount Rainier NHL to the greatest extent practicable.

Under alternative C, the parking area would not have been expanded and would have remained on the downstream side of the road, opposite the Summerland Trailhead. The new bridge would have included curved approach spans to match the existing alignment of the road. The longer and wider bridge on the existing alignment would have resulted in the removal of approximately 2,500 square feet of pavement, resulting in the loss of up to six formal and non-formal parking spaces to accommodate the construction of the wider and longer bridge on the existing road alignment. A temporary one-lane bridge and temporary road would have been required during construction to retain access to the Sunrise area while the current bridge was demolished, and a new bridge was being built in the same location.

## **5. Public Involvement and Agency Consultation**

The NPS notified the public of the proposed bridge project through a press release on March 9, 2022, that was distributed electronically and posted on the NPS Planning, Environment, and Public Comment (PEPC) website, as well as on social media. The press release provided a link to a web presentation (an ArcGIS StoryMap) that provided information about the project area and the preliminary options for management. The NPS also hosted a virtual public meeting to present information on the project and the potential options and held a question-and-answer session. A 30-day comment period on the project was open through April 9, 2022. Comments and concerns were related to access to the Sunrise area, the cost and longevity of the project, the materials and methods that would be used for construction, potential impacts on natural and cultural resources, and safety issues. Commenters also suggested additional elements for inclusion in the proposed action. These comments were considered when developing the alternatives carried forward in this EA for full analysis.

The EA was available to the public for review and comment from April 5 to May 7, 2023 on the NPS PEPC public website at: <https://parkplanning.nps.gov/FryingpanCreekBridgeEA>. Local tribes; elected officials; organizations, businesses; individuals; and federal, state, and local agencies were sent notice of the availability of the EA for review through email, social media, and the park website. A press release was sent to the park media list, which includes local and regional newspapers, and television stations. A virtual public meeting was held on Wednesday, April 12, 2023, from 4:00pm PDT to 5:30pm PDT. There were 82 public participants in the virtual meeting. Agency staff presented information on the project and the potential options and held a question-and-answer session. The NPS considered all comments in the process of preparing this FONSI (see comment summary in attachment D).

## **Agency Consultation**

### **Section 7 of the Endangered Species Act**

The NPS consulted with the USFWS and the NMFS for compliance with Section 7 of the ESA to evaluate the potential impacts of the project on threatened or endangered species and their habitat. The NPS determined that the project may affect the following species – bull trout (*Salvelinus confluentus*), Chinook salmon (*Oncorhynchus tshawytscha*, Puget Sound evolutionarily significant unit), steelhead (*O. mykiss*, Puget Sound distinct population segment), northern spotted owl (*Strix occidentalis caurina*), marbled murrelet (*Brachyramphus marmoratus*), Mount Rainier white-tailed ptarmigan (*Lagopus leucura rainierensis*), gray wolf (*Canis lupus*), and North American wolverine (*Gulo gulo luscus*). The project area also includes essential fish habitat (EFH) managed under the Magnuson-Stevens Fishery Conservation and Management Act for Chinook salmon, pink salmon (*O. gorbuscha*), and coho salmon (*O. kisutch*). The NPS prepared a biological assessment, which included an EFH assessment, and requested consultation with the USFWS and NMFS on February 21, 2023.

The NPS determined that the project “may affect, and is likely to adversely affect,” bull trout and bull trout critical habitat, Puget Sound Chinook Salmon, and Puget Sound steelhead; and that the project “may affect, but is not likely to adversely affect,” northern spotted owl, marbled murrelet, and gray wolf. The NPS determined that the preferred alternative would not jeopardize the Mount Rainier white-tailed ptarmigan or the North American wolverine, which were proposed as threatened at the time of consultation; and that the preferred alternative would have no effect on whitebark pine or yellow-billed cuckoo. Regarding EFH, the NPS determined that the preferred alternative may adversely affect EFH for Chinook and coho salmon.

On August 23, 2023, the USFWS sent a biological opinion on the Fryingpan Creek Bridge Replacement Project and its effects on bull trout and its designated critical habitat. The letter also documented concurrence with the NPS determinations of effect for northern spotted owl, marbled murrelet, gray wolf, North American wolverine, and Mount Rainier white-tailed ptarmigan.

On January 19, 2024, the NMFS sent a biological opinion and Magnuson-Stevens Fishery Conservation and Management Act EFH response for the Mount Rainier Fryingpan Creek Bridge Replacement Project.

Each of the biological opinions includes terms and conditions that will be implemented for this project. These requirements are included in attachment A.

### **Section 106 of the National Historic Preservation Act**

#### ***Consultation with Washington State Historic Preservation Office***

The NPS initiated Section 106 consultation with the Washington SHPO via a virtual meeting in November of 2021 in accordance with the NHPA. In February of 2023, the SHPO concurred with the NPS determination of adverse effect. The NPS, FHWA, and the SHPO developed a memorandum of agreement (MOA) to avoid, reduce, and mitigate adverse effects associated with the replacement of the historic Fryingpan Creek Bridge. The MOA was signed December 15, 2023 and includes stipulations which are incorporated into the project mitigation measures in attachment A.

#### ***Consultation with American Indian Tribes***

The NPS invited consultation from the American Indian Tribes traditionally associated with lands now within the park, including the Muckleshoot Indian Tribe, the Puyallup Tribe of Indians, the Nisqually Indian Tribe, the Cowlitz Indian Tribe, the Squaxin Island Tribe, and the Yakama Nation. The park invited consultation from affiliated tribes for this project by sending letters to the tribes in December 2021 along with a map of the project area of potential effect and a copy of the fisheries report. Letters were also sent in January 2022 with a copy of the archeological survey report. The park also provided project updates and invited tribal consultation during the park's annual meetings with Tribes in April 2021, 2022, and 2023. The Nisqually Indian Tribe responded on February 10, 2022 and asked to be kept informed if any human remains are located during construction. They defer to the Puyallup Tribe of Indians and the Muckleshoot Indian Tribe as to the impacts of the project on the creek. The Yakama Nation responded on February 1, 2022 that they had no concerns. The tribes were sent letters again in February 2023 with the draft MOA and requesting review of the EA. The letter also invited the tribes to virtual meetings to provide input to further refine the MOA and provide comments on the EA. An additional letter was sent to the tribes on June 27, 2023 to request concurrence with the proposed stipulations prior to finalizing the MOA for signature.

## **6. Finding of No Significant Impact**

Based on the analysis of impacts as documented in the Fryingpan Creek Bridge Project EA, implementing the selected alternative will not result in significant impacts due to the construction-related impacts within the Fryingpan Creek area within the White River basin and the surrounding forest habitat as described in the EA and summarized below.



## Potentially Affected Environment

The replacement of the Fryingpan Creek Bridge will affect soils, vegetation, wetlands, floodplains, special status species, cultural landscapes, historic structures, and visitor use and experience.

## Degree of Effects of the Action

The NPS considered the following actual or potential project effects in evaluating the degree of effects (40 Code of Federal Regulations [CFR] 1501.3(b)(2)) for the selected alternative.

### **Beneficial and Adverse, and Short-term and Long-term Effects of the Selected Alternative**

The EA analyzed in detail the following resource topics: vegetation and soils, wetlands, floodplains, special status species, cultural landscapes and historic structures, and visitor use and experience. The selected alternative will have noticeable, site-specific, long-term adverse impacts due to the removal of 2.3 acres of vegetation, including mature forest, adjacent to the Sunrise Road near the Fryingpan Creek Bridge. Approximately 0.6 acre of this will be permanent due to the minor realignment of the road to allow for a longer bridge span to place the new bridge abutments outside of the active channel and to construct a new parking lot to replace the parking area that is in the area where the new road alignment will be constructed. The remaining 1.7 acres will be recontoured and revegetated with native plants following construction; however, it will take decades for vegetation to mature, and the restored areas may appear different from the surrounding forest because of the changed site conditions due to the new opening of the forest.

The Fryingpan Creek drainage and White River watershed within the park will continue to have extensive areas of mature, undeveloped forest adjacent to the project area and throughout the park. The 2.3 acres of roadside vegetation removal will result in a loss of mature forest habitat for several species (northern spotted owl, marbled murrelet, gray wolf, and North American wolverine) and will alter the degree of shading to Fryingpan Creek while new vegetation is being established. Additionally, these and other wildlife species are likely to avoid the area during construction and will use adjacent suitable habitat or other areas of suitable habitat in the park. Given the small area affected, the selected alternative is not extensive enough to result in a significant reduction in the capacity of the local landscape to support resident species, including northern spotted owls. In the Washington Cascades, spotted owl home ranges encompass thousands of acres of forest habitat. Additionally, spotted owls have not been documented in the upper White River basin in several years. Although large trees are included within the area of vegetation removal, including trees with structures suitable for marbled murrelet nesting, these trees are all located along the busy Sunrise Road, in an area exposed to high levels of existing recreation use, and a low likelihood of marbled murrelet presence. Additionally, marbled murrelets have not been documented in the upper White River basin of the park, likely due to the far inland distance from marine waters.

Although not yet observed within the park, wolves are wide-ranging animals and may transit or disperse into wooded portions of the action area. Although temporary disturbance caused by the noise of heavy equipment could cause a transient wolf to move back into the adjacent forest, the impact of an individual moving away from the source of disturbance will not affect fitness or long-

term foraging potential. Although wolverines are documented within the park, the project area does not contain suitable denning habitat. While transient wolverines may pass through the project area, the effects are insignificant because individuals can move away from a temporary source of disturbance to the surrounding habitat.

The selected alternative will have short-term adverse impacts on aquatic resources but overall will result in beneficial effects. There will be a small permanent loss of wetlands, streams, and ditches (0.02 acre) associated with replacing culverts, and loss of approximately 0.6 acre of vegetated wetland buffer as described above from constructing the new road alignment and parking area. Construction activities will have short-term adverse impacts on both wetlands and the floodplain. Removing the existing bridge abutments from the floodplain will have long-term beneficial effects. Other long-term beneficial effects include reducing scour and allowing natural migration of the stream channel. Additionally, the larger culverts will restore site hydrology to more natural conditions.

The selected alternative will adversely affect spawning and rearing habitat for juvenile, subadult, and adult bull trout and habitat quality for other native fish species and amphibians during construction. Temporary adverse effects will result from exposure to elevated underwater sound pressure levels and turbidity. The selected alternative will also have temporary adverse effects on the condition and function of the migratory corridor.

However, the selected alternative incorporates both permanent design elements and conservation measures, which will reduce effects to habitat and avoid and minimize impacts during construction. The selected alternative's temporary adverse effects are limited in both physical extent and duration. No measurable, adverse, long-term effects to bull trout, their habitat, or prey base are anticipated, and the direct and indirect effects of the selected alternative (permanent and temporary) will not preclude bull trout from foraging, migrating, and overwintering in the action area. The selected alternative will have no measurable, permanent adverse effects on water quantity or quality.

Aquatic species (bull trout, steelhead, Chinook, coho, and pink salmon, western toad (*Bufo boreas*), Cascades frog (*Rana cascadae*), coastal tailed frog (*Ascaphus truei*), and coastal giant salamander (*Dicamptodon tenebrosus*)) may experience short-term adverse impacts from handling during fish exclusion, dewatering, increased turbidity, and the use of tracked equipment in Fryngpan Creek. These species will also benefit from the removal of the current bridge and replacement with a longer bridge that will reduce constriction of the creek and improve aquatic habitat functioning in the long term.

The selected alternative will result in adverse effects (per the NHPA) on the historic bridge, alignment, and other features of the Mount Rainier NHL and the Yakima Park Highway. Although these historic elements would be removed or altered, the changes would not modify the overall characteristics to the extent that the NHL would no longer qualify for inclusion in the NRHP. As stated above, the NPS, FHWA, and the SHPO developed a MOA to avoid, reduce, and mitigate the adverse effects. The new bridge is designed to be compatible with the district. The design, texture, and color of the structures associated with the road will blend into the environment.

During construction, there will be short-term adverse impacts on visitor experience due to trailhead closure and traffic delays. Long-term effects will be primarily beneficial, providing a safe and consistent transportation corridor for vehicles, bicyclists, and pedestrians.

The selected alternative does not establish a precedent for future actions with significant effects nor does it represent a decision in principle about a future consideration. Work to maintain, rehabilitate, or replace bridges to provide sustainable vehicular access is well-precedented.

The anticipated impacts on the human environment, as analyzed in the EA, are not highly uncertain or unique and do not involve unknown risks. Resource conditions in the project area are well known and the anticipated impacts from implementing the selected alternative are understood based on NPS experience with similar projects and site-specific data gathering and analysis as documented in the EA.

The project's impacts were analyzed along with other reasonably foreseeable planned actions identified in appendix E of the EA. These projects were considered part of the affected environment and have the potential for effects to overlap with the selected alternative. These projects include previous construction of infrastructure and visitor amenities; on-going maintenance and improvements to trails, roads, infrastructure, and visitor use amenities; and natural resources and hazard tree removal. These projects have had and may continue to result in: varying levels of effects due to soil erosion, vegetation clearing, and disturbance; varying levels of sediments or other impacts to wetlands and floodplains; varying levels of effects to special status species; effects to other features of the NHL, cultural landscapes, or archeological sites; and temporary increases in congestion on related roads and impacts to visitors' use and experience due to short-term closures or traffic delays during construction. The contribution of impacts from this project, when added to these other projects, do not cumulatively result in significant impact due to the difference in location, timing, and duration and also the implementation of BMPs that retain the distribution and abundance of natural and cultural resources within the park while sustaining long term opportunities for visitor enjoyment.

#### **Degree to Which the Selected Alternative Affects Public Health and Safety**

The construction of a new bridge and alignment will affect public health and safety by ensuring continued safe access to the Sunrise area for park visitors. Replacement of the deteriorated Fryingpan Creek Bridge will prevent a future closure or catastrophic bridge failure. Replacement of the bridge will maintain long-term access to the Sunrise area and will support essential services, such as NPS firefighting, emergency response, and search and rescue operations. This will have beneficial health and safety effects. Dust, noise, construction delays, and potential increased traffic have the potential to result in temporary effects on public health and safety. These effects will be avoided or reduced by requiring the implementation of mitigation measures and BMPs in construction activities as described in the EA and the measures included in attachment A. Closing the Summerland Trailhead during construction will have a positive impact on human health and safety by keeping visitors out of the construction area. The new parking area included in the selected alternative also improves the safety of visitors by reducing the need to cross the road to access the trailhead, removing the need for

vehicles to back into the Sunrise Road corridor from designated parking stalls, and providing sidewalks for visitors along the bridge.

### **Effects That Would Violate Federal, State, Tribal, or Local Law Protecting the Environment**

As described above, the selected alternative will not violate any federal, state, tribal, or local laws protecting the environment. The selected alternative conforms with applicable legal, regulatory, and policy requirements.

## **7. Conclusion**

The NPS determined that, although alternative B will remove and replace the current deteriorated Fryingpan Creek Bridge, a feature of the Mount Rainier NHL, and requires removal of 2.3 acres of vegetation (including mature forest) and associated habitat, it best meets the project purpose to provide a bridge that meets current design standards, providing long-term, vehicular bridge crossing over Fryingpan Creek while preserving park resources. It is, therefore, the selected alternative.

As described above, the selected alternative does not constitute an action meeting the criteria that normally requires preparation of an environmental impact statement (EIS). This finding is based on consideration of Council on Environmental Quality criteria for significance (40 CFR 1501.3 (b)), regarding the potentially affected environment and degrees of effects of the impacts described in the EA.

Based on the foregoing, it has been determined that an EIS is not required for this project and, thus, will not be prepared.

**Attachment A:  
Mitigation Measures, Terms and Conditions, Stipulations**

To minimize resource impacts, the selected alternative will implement mitigation measures and BMPs. This list also includes terms and conditions identified through consultation with the USFWS and NMFS and stipulations identified through consultation with Washington SHPO and American Indian Tribes. The terms and conditions (TC) required by USFWS and NMFS are identified with the appropriate agency's acronym and the TC number provided in the BOs received during consultation (e.g., USFWS, TC1 or NMFS TC1a). The stipulations identified through cultural resource consultation are noted with the specific stipulation number from the MOA (e.g., MOA1a or MOA3a). Resource protection measures are considered part of the selected alternative, and they will be implemented to avoid or reduce impacts on park resources and values. Subject to the final design and approval of plans by relevant agencies, resource protection measures will include, but will not be limited to, the items below. The NPS has the authority to implement these mitigation measures under the Organic Act, the Wilderness Act, the National Historic Preservation Act, NPS *Management Policies 2006*, and other federal and state applicable requirements as listed in the EA.

## General

- To minimize the amount of ground disturbance, staging and stockpiling areas will be in previously disturbed sites, including the roadway and gravel pullouts, and away from visitor use areas to the extent possible. Staging and stockpiling areas will be restored to pre-construction conditions following construction.
- Construction zones will be identified and fenced with construction fencing or similar material prior to any construction activity. The fencing will define the construction zone and confine activity to the minimum area required for construction. All protection measures identified in this document will be clearly stated in the construction plan specifications, and workers will be advised that construction activities are prohibited beyond the construction zone as defined by the construction zone fencing.
- Construction activities will be limited to daytime hours.
- Fugitive dust generated by construction will be controlled by spraying water on the construction site, if necessary. Vehicle speed on unpaved roads will be limited to further reduce the generation of fugitive dust.
- To reduce air pollution and noise, construction equipment and vehicles will be well-maintained and properly functioning and equipment idling will be limited to only what is necessary for safety and/or mechanical reasons. Equipment and vehicles will also be checked for leaking oil and fluids.
- Confinement techniques (e.g., temporary containment barriers, debris shields) will be used during the removal of the existing bridge and portions of the existing road, as well as the temporary bridge and road, to prevent construction debris (including lead-based paint) from entering Fryngpan Creek and the surrounding environment.
- At the end of each day, the active construction zone will be left in a state that minimizes the obstruction of wildlife movement through the area (e.g., covering holes) and avoids unintentionally attracting wildlife.

- The parking area and surrounding areas will be designed to minimize small wildlife entrapment. Design elements could include a wall design that directs small wildlife away from the parking area and towards the ditch and/or culvert that will contain small openings, or the bottom of the barrier wall that will allow for the passage of small wildlife.
- Based on results of geotechnical investigations, any necessary blasting will be minimized to the extent possible to meet project objectives for the site-specific conditions.
- Blasting will not occur in-water; however, to reduce impacts from flyrock that might move toward the water, blast mats will be laid over the top of the shot to prevent flyrock and disperse some of the sound from the blast.

## **Floodplains and Wetlands**

- Wetlands will be avoided to the extent possible. Silt fencing will be installed around wetlands prior to construction to minimize impacts on wetland soils and vegetation from heavy equipment.
- Erosion and stormwater runoff will be mitigated through measures such as sediment traps, silt fences, and regular inspection of construction areas for erosion.
- A construction spill prevention, control, and countermeasures plan or hazardous spill plan (whichever is appropriate) will be developed and implemented.
- Heavy equipment hydraulic fluid lines will be filled with biodegradable hydraulic oil alternatives.
- Equipment stationed in the dewatered work zones that cannot be readily relocated (i.e., pumps and generators) will be kept in place and refueled or serviced within a secondary containment system. All other equipment must be removed and serviced in a designated, protected area to reduce threats to water quality from vehicle fluid spills. Designated areas will not directly connect to groundwater, surface water, or the storm drain system. The service area will be designated with berms, sandbags, or other barriers. Secondary containment, such as a drain pan, to catch spills or leaks will be used when removing or changing fluids. Fluids will be stored in appropriate containers with covers and properly recycled or disposed of offsite.
- No fuel storage containers will be allowed on the project site. Fuel will be delivered to the site only in pick-up trucks designed for fuel hauling, but it will not be otherwise stored on site.
- Since the culverts to be replaced are in intermittent streams and ditches, culvert construction work will occur when these features are not watered, if possible, to minimize impacts on water quality.
- Once the berms for an isolated work zone are installed, the work zone will be dewatered. The water will be pumped and discharged to an upland location for infiltration to prevent turbid water from entering the waterway. The pump intake will be screened with mesh sized to prevent unintended intake of fish at any life stage.

- Turbidity will be monitored during in-water work. Work will be stopped if the turbidity exceeds the limits set by permitting requirements.
- All work in Fryingspan Creek, including water diversion removal, will occur during the in-water work window between June 15 and August 15.
- All requirements of subsequent permits will be implemented as required pursuant to the Clean Water Act and other legal and regulatory requirements associated with the project.

## **Vegetation**

- Existing vegetation will be retained to the extent possible. Vegetation outside of the areas that will become impervious surfaces (road and parking areas) will be retained to the greatest extent practicable. Removal of specimen trees — those that are a focal point of the landscape — and trees with a DBH of 18 inches or more will be avoided where feasible.
- Ground protection mats or similar equipment will be placed in the geotechnical work areas to reduce trampling impacts on vegetation from heavy machinery, when possible.
- To avoid transport of nonnative species to the project area, all construction vehicles will be washed and inspected prior to use.
- All material sources and materials, such as topsoil, incorporated into the work area will be certified to be free from noxious weeds, invasive plants, and other deleterious materials by a federal, state, or local public agency. Commercial certifications may be acceptable if materials have been certified through the North American Weed Free Forage Program standard or a similarly recognized certification process. Certifications must include comprehensive lists of introduced plant species located at the material source site. All certifications will be evaluated by park vegetation specialists for approval.
- All fill and excavated materials will be covered with tarps when stockpiled to reduce the potential for invasive species establishment.
- Site preparation for revegetation will include surface mulching and vertical mulching, as appropriate, reusing topsoil, logs, and other materials harvested from the site when possible. Re-contouring and revegetation of disturbed areas will take place following construction. Revegetation efforts will strive to reconstruct the natural spacing, abundance, and diversity of native plant species using native species. All disturbed areas will be restored as nearly as possible to natural conditions shortly after construction activities are completed.
- Standard best management practices for weed control methods will be implemented to minimize the introduction or spread of noxious weeds.
- During and after construction and following revegetation, restored areas will be monitored and managed to prevent colonization by nonnative invasive species.

## **Special Status Species**

- The NPS shall ensure that a qualified biologist conducts fish capture and removal operations and that all staff participating in the operation have the necessary knowledge, skills, and



abilities to ensure safe handling of fish. Fish capture and removal operations shall take all appropriate steps to minimize the amount and duration of fish handling (USFWS, TC1).

- The NPS shall document and report the following: a) the number, approximate size, life stage, and date of all bull trout encountered during fish capture and removal operations; b) the location and estimate of the area where fish removal occurred; c) the NPS shall submit a project monitoring report no later than three months after the completion of construction activities. Submit a report for each year of construction work via email to the Washington Fish and Wildlife Office in Lacey, Washington at [WashingtonFWO@fws.gov](mailto:WashingtonFWO@fws.gov) (USFWS, TC2).
- Construction workers and supervisors will be informed of the occurrence and status of special status species (including federally listed species) and will be advised of the potential impacts on the species and potential penalties for taking or harming a federally listed special status species. Contract provisions will require the cessation of construction activities if a special status wildlife species were discovered in the project area and until qualified park staff re-evaluates the impacts of the project on the species. This will allow modification of the contract to include protection measures determined necessary to protect the discovery.
- Captured fish shall be kept in water to the maximum extent possible during relocation activities. They shall be kept in cool, shaded, aerated water protected from excessive noise, jostling, or overcrowding. Fish shall not be removed from this water except when released. To avoid predation, use at least two containers and segregate young-of-year fish from larger age classes and other potential aquatic predators. Captured salmonids shall be relocated, as soon as possible, to a location that will allow for adequate survival of transported fish (NMFS TC1a).
- If any salmonids are found dead or injured anytime during construction, the biologist on site shall contact NMFS by phone within 24 hours. All ESA-listed salmonid mortalities will be retained until further direction is provided by the NMFS consulting biologist. Tissue samples are to be acquired from each mortality prior to freezing the carcass per the methods identified in the NMFS Southwest Fisheries Science Center Genetic Repository protocols (NMFS TC1b).
- If samples are taken, NMFS will specify where to send them at that time. Pumps used in the waterway shall be screened and maintained throughout construction to comply with NMFS' Fish Screening Criteria for Pump Intakes (NMFS TC1c).
- Fill supersacks for isolation with clean/washed gravel that will be appropriate for later streambed material. This will minimize turbidity and potential introduction of invasive species (NMFS TC1d).
- Do not use AquaDams as an alternative isolation best management practice. This will avoid heated water input into Fryingpan Creek (NMFS TC1e).
- When working in the active channel, turbidity monitoring shall occur at 300 feet downstream of construction. Monitoring shall ensure turbidity does not exceed 10 NTU over background when background is 50 NTU or less; or a 20 percent increase in turbidity when the

background turbidity is more than 50 NTU. If either threshold is exceeded, stop work until turbidity falls below thresholds (NMFS TC2a).

- Begin all pile driving and blasting activities with a “soft start” to give juvenile and adult fishes in the area a chance to swim away from the noise. Blasting may be proceeded with an airgun or airhorn used several times (NMFS TC2b).
- Use non-plastic biodegradable materials for construction best management practices, such as coir logs and fiber rolls. Do not place any permanent standard geotextile on site (NMFS TC2c).
- Minimize stream crossings and in-stream work (NMFS TC2d).
- Remove vegetation (particularly large-diameter trees) only when absolutely necessary for project completion, especially within 200 feet of Fryingpan Creek (NMFS TC3a).
- All trees over 18 inches DBH felled shall be left on-site or placed as large woody debris within a river/stream upon completion of construction to meet the objectives of the site restoration plan, consistent with the surrounding forest. Material can be temporarily stored off-site. The amount of material returned will result in at least an average of 11 tons per acre of felled wood, consistent with this forest type and associated surface fuel volumes, with adjustments to local site conditions if needed. Wood shall be left consistent with Kopper 2022<sup>1</sup>. Trees may be moved away from areas of active construction. Felled trees will be retained or returned in the area to meet coarse woody debris objectives for ecological purposes and consistent with adjacent forest conditions (11 tons per acre). This may require some trees to be removed to avoid creating artificially high downed tree density on the forest floor that could contribute to undesirable fuel loading or elevated risk of beetle infestation that could put the adjacent healthy forest at risk. NMFS preference is for larger trees to be placed in the riparian, near or below the OHWM. This placement should be completed consistent with aquatic habitat and hydrologic data to meet desired ecological conditions. Trees may be delimbed, as necessary. Felled trees greater than 18 inches DBH in excess of what is required for on-site revegetation and restoration objectives shall be utilized by the NPS, FHWA, or given to Traditionally Associated Tribes or other conservation groups. Trees shall be used for habitat enhancement activities (preferred) or other non-commercial use. The NPS shall prioritize uses that actively support restoration goals. Trees shall only be disposed of if necessary by policy or to protect surrounding habitat. No selling or burning of cut vegetation shall occur (NMFS TC3b).
- Wash all construction vehicles (all vehicles that will be on disturbed soil) to remove invasive species prior to driving from their previous location to the project location (NMFS TC3c).

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<sup>1</sup> Kopper, K. 2022. Chapter 2. Fuel characteristics of Mount Rainier National Park, Washington, USA: Mapping with a combination of field, environmental, and LiDAR data *in* Fire Regimes in National Parks of the Pacific Northwest: Implications for Climate Change [dissertation]. pp 42 - 85 & Appendices. University of Washington. <http://hdl.handle.net/1773/48512>

- Monitor revegetated areas to maintain 75% survival in the first 2 years. 50% survival is required thereafter. Dead plants must be replaced to achieve the allotted percent survival (NMFS TC3d).
- If hydroseeding, a native seed mix shall be used (NMFS TC3e).
- Design and install low impact development (LID) stormwater treatment approaches to evapotranspiration, infiltrate, and treat stormwater runoff from all 1.37 acres of pollution generating impervious surfaces (PGIS) associated with the selected alternative to achieve Washington Department of Ecology's "Basic Treatment" level, as defined in Ecology's [Stormwater Management Manual for Western Washington](#) (NMFS TC4a).
- LID stormwater treatment must be designed to handle, at least, the predevelopment runoff for a 10-year 24-hour storm event and meet Basic Treatment standards specified by Ecology (NMFS TC4b).
- Bridge runoff must also be treated, as above, prior to discharging into Fryingpan Creek (NMFS TC4c).
- Perform inspections of road runoff consistent with NPS road maintenance program to ensure effectiveness of LID treatment methods during storm events (NMFS TC4d).
- Modify or replace the system if, at any point, the treatment train no longer meets Ecology Basic Treatment standards for suspended solids (NMFS TC4e).
- Before construction begins, FHWA, in coordination with NPS, will submit design plans, and a rationale for how/why the proposed treatment(s) meets the criteria above. Include a maintenance and monitoring plan to ensure continued treatment success for the design life of the project (50 years) to NMFS (NMFS TC4f).
- The NPS and/or FHWA shall provide written reports following each construction season/year to [consultationupdates.wcr@noaa.gov](mailto:consultationupdates.wcr@noaa.gov). They shall contain the following information:
  - Construction-related activities – include the dates construction began and was completed, a discussion and photographs of any unanticipated effects or unanticipated levels of effects on steelhead or Chinook, a description of any and all measures taken to minimize those unanticipated effects had any visible effect on listed fish.
  - Fish relocation and dewatering activities – the number, approximate size, life stage, and date of all fish species encountered during capture and relocation operations. The location(s) and estimate of the area where fish removal occurred, as well as the location(s) of release.
  - Post-construction BMP photos (NMFS TC5a).
- The NPS and/or FHWA shall provide a final report at 5 years post-construction with results of water quality monitoring and vegetation restoration to [consultationupdates.wcr@noaa.gov](mailto:consultationupdates.wcr@noaa.gov). They shall contain the following information:
  - Post-construction stormwater treatment performance in regard to specifications in term and condition 4, vegetation restoration performance including a percentage success of plantings within 200 feet of the OHWM as well as upland.

- A description of any changes or supplemental plantings that were used to meet the success criteria in term and condition 3.
- A description of any other adaptive changes that took place on site, rationale, and how they were implemented (NMFS TC5b).
- All blasting and in-water work will be conducted within the in-water work window for bull trout, between June 15 and August 15.
- Block netting will be installed prior to the in-water work to exclude fish from the work area, and fish will be removed from within the netting.
- To the extent possible, current-year spotted owl surveys would be performed and preliminary results provided in early June of that year. Active owl territories would be based on the most recent information available and may change during a season as new information is gained. If surveys reveal activity centers have shifted, then construction work would stop, and consultation with USFWS would be re-initiated.
- Tree removal will be done outside of the migratory bird nesting season and the spotted owl nesting seasons (March 15 to September 30) unless the appropriate surveys are conducted and no spotted owls are present and no active nesting is occurring in trees proposed for removal. Tree removal will be done outside of the murrelet nesting seasons (April 1 to September 23). Removal of large trees (18 inches DBH and greater) is proposed to occur in association with the geotechnical investigation and the fall prior to construction and would occur no earlier than the day after Labor Day.
- If wolf dens or rendezvous areas are documented (e.g., through Washington Department of Fish and Wildlife tracking, NPS surveys, or confirmed wildlife sighting reports) within one mile of the action area during the years prior to or during project implementation, the NPS will reinitiate consultation with the USFWS to determine whether additional conservation measures are needed and if formal consultation is required.
- If an active wolf den or rendezvous site becomes established, no ground-disturbing work would occur within 1 mile from April 1 to July 15, as needed, until wolves are no longer using the area for denning or as a rendezvous site.
- The contractor will be required to keep all waste and contaminants contained and remove them daily from the work site. Food and other wildlife attractants will be contained to minimize risk of attracting nest predators (i.e., corvids). Other mitigation measures to prevent human-wildlife conflict will include the following: feeding or approaching wildlife will be prohibited; a litter control program will be implemented during construction to eliminate the accumulation of trash; and all food items will be stored inside vehicles, trailers, or wildlife-resistant receptacles except during actual use to prevent attracting wildlife.

## **Cultural Landscapes and Historic Structures**

- Archeological monitoring will be completed by NPS archeological staff in coordination with FHWA and NPS staff during the installation and removal of infrastructure and any associated ground disturbance, consistent with the NPS-approved Inadvertent Discovery and Monitoring

Plan. Halt work in the event human remains or previously unidentified archeological resources are found. Tribes traditionally associated with Mount Rainier National Park will be notified in advance of archeological monitoring activities to provide an opportunity for participation (MOA1a).

- The NPS and FHWA will design and construct the new bridge and landscape alterations to be compatible with the rustic style of the Mount Rainier NHLD (MOA1b).
- The NPS and FHWA will salvage and reuse existing stone materials from the existing bridge abutments, wingwalls, and guardwalls and use in the construction of the new bridge abutments, wingwalls, guardwalls and, if sufficient rock is available, the parking lot rock walls. Priority will be given to using the stones from the original bridge in the areas that will be readily visible to people crossing the bridge (MOA1c).
- The NPS and FHWA will salvage any subsurface boulders that are excavated through the project construction for use as roadside parking deterrents. Existing boulders that are being used as parking deterrents will also be salvaged and reused on the new road alignment (MOA1d).
- The NPS and FHWA will recontour and revegetate the areas where mature vegetation is removed for construction. The project will be designed and implemented to restore a naturalistic landscape that is consistent with the NHLD (MOA1e).
- The NPS will fund the development of an ethnographic study and cultural context to be completed by the Confederated Tribes and Bands of the Yakama Nation Cultural Resources Program. The study area will include lands within Mount Rainier National Park including the Fryingpan Creek area of the White River (MOA2a).
- The NPS will develop a “landing page” on the park website to highlight the Mount Rainier NHLD, including the Yakima Park Highway and the Fryingpan Creek Bridge specifically. This page may be a static webpage or a StoryMap (MOA2b).
- To increase public understanding and appreciation for the NHLD, the proposed bridge and other related topics, the NPS shall, in consultation with the Washington State Department of Archaeology and Historic Preservation (DAHP) and Indian Tribes traditionally associated with the lands now designated Mount Rainier National Park, develop and seek funding for interpretive material. Subjects may include but not be limited to Fryingpan Creek, Fryingpan Creek Bridge, or any historical, cultural, or spiritual storylines relating to Mount Rainier and its preceding names since time immemorial. Interpretive material may consist of interpretive waysides, exhibits, printed brochures, or digital media. New media will be provided to DAHP for review and comment (MOA2c).
- The NPS will utilize existing Historic American Engineering Record (HAER) documentation to increase awareness and understanding of the history and significance of the bridge in the context of the Yakima Park Highway. This action will include a web-based element that does not require someone to be on-site to learn about the bridge or the NHLD. The content of the new webpage will be provided to the DAHP for review and comment. This will become a long-term element of the park website and app (MOA2d).

- The FHWA will provide a project inspector during construction to ensure that the stipulations identified in Section 1, A through E in the MOA are implemented (MOA3a).
- Final design and construction will follow the *Secretary of the Interior's Standards for the Treatment of Historic Properties*.

## **Archeological Resources**

- The NPS will have archeological monitors on-site during ground disturbance. Should construction unearth previously undiscovered cultural resources, work will be stopped in the area of discovery and the park will consult with the SHPO and the Advisory Council on Historic Preservation, as necessary, according to 36 CFR 800.13, Post Review Discoveries. In the unlikely event that human remains are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act will be followed.
- The NPS will ensure that all contractors and subcontractors are informed of the penalties for illegally collecting artifacts or intentionally damaging paleontological materials, archeological sites, or historic properties. Contractors and subcontractors will also be instructed on procedures to follow in case previously unknown paleontological or archeological resources are uncovered during construction.

## **Visitor Use and Experience**

- Sunrise Road will remain open during construction, so visitors can continue to access the facilities and recreational amenities at the Sunrise area. Short-term traffic delays (up to 30 minutes) and longer-term closures (up to one hour a few times a day) may be necessary during specific construction activities. Closures will be kept to a minimum and only implemented, as necessary.
- Seasonal closures could be used to expedite construction. If necessary, these closures will occur during the shoulder seasons when visitation is lower (e.g., June and October).
- The park will coordinate and communicate the construction schedule through press releases, the park website, and other appropriate means to inform visitors of construction activities and short- and longer-term closures.
- During construction activities, safety measures to protect visitors will be implemented. These will include restricting visitors from active work areas, closing the Summerland Trailhead and parking area, and safely storing any hazardous materials required for construction activities.
- The construction contractor will use traffic safety signs and flaggers to inform motorists, bicyclists, and pedestrians and to manage traffic on affected roads during construction activities.

**Attachment B:  
Errata Indicating Text Changes to the  
Environmental Assessment**

This errata contains corrections and minor revisions to the EA. Page numbers referenced pertain to the 2023 Replacement of Fryingpan Creek Bridge EA. The edits and corrections in this errata do not result in any substantial modification being incorporated into the selected alternative, and it has been determined that the revisions do not require additional environmental analysis. This errata, when combined with the EA, comprises the only amendments deemed necessary for the purposes of completing compliance and documentation for the project.

Original text from the EA is included to provide context and to allow for comparison to the text change. Additions to the text are underlined.

***Pages 6, 9, and 19, Figures 3, 4, and 7 of Alternatives A, B, and C, respectively***

These figures were updated to add the Wilderness boundary.

***Page 10, Figure 5, Rendering of Alternative B***

This rendering of alternative B was updated to incorporate additional design details in response to agency consultation and public comment, particularly related to the trailhead and parking lot.

***Page 12, Chapter 2, Alternative B, Construction Phase, New Figure 6a***

The closest alternate access to the Wonderland Trail is the roadside access on Sunrise Road approximately 0.75 mile to the northwest of the Summerland Trailhead and 1,000 feet before the White River Campground entrance. Additional trailheads and trail spurs are shown in figure 6a.



Figure 3. Current Conditions in the Project Area / Alternative A – No Action

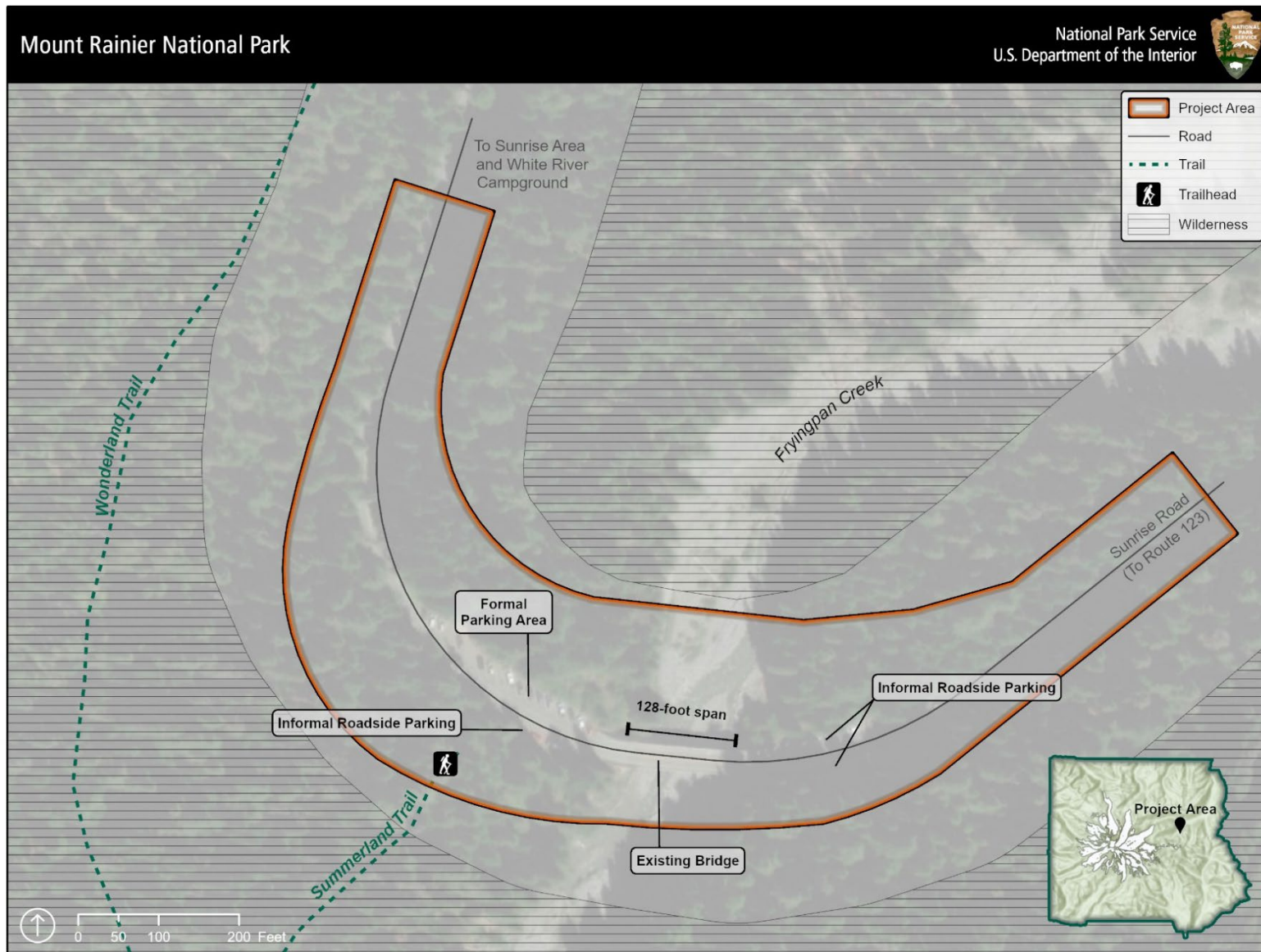
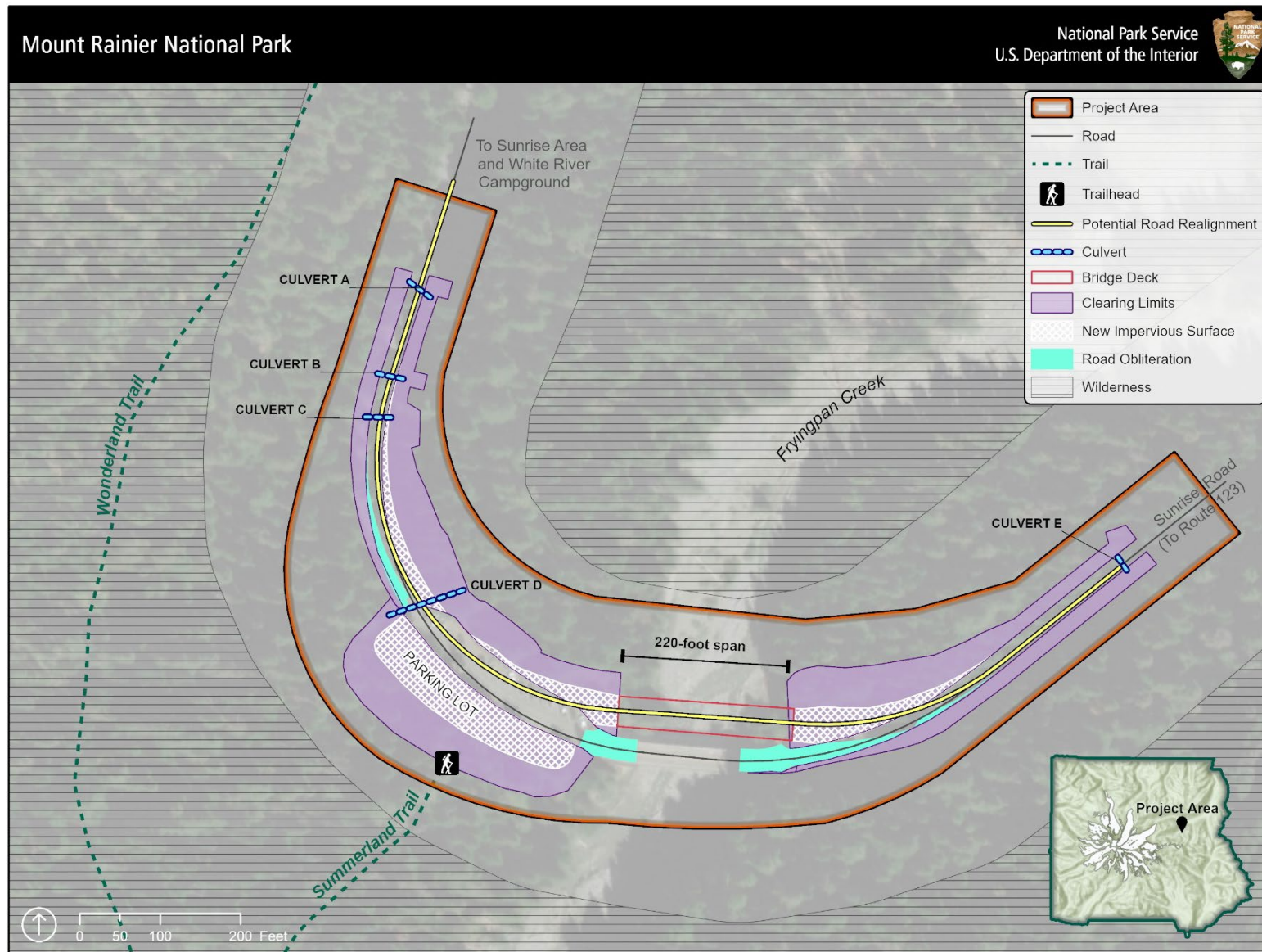


Figure 4. Alternative B (Proposed Action/Preferred Alternative) – New Bridge on a New Alignment Downstream of Existing Bridge



**Figure 5. Rendering of New Bridge under Alternative B/Proposed Action/Preferred Alternative – New Bridge on a New Alignment Downstream of Existing Bridge**

Note: This is a preliminary design drawing. Final design may be modified based on selected action and measures to avoid or meet site constraints and minimize impacts.

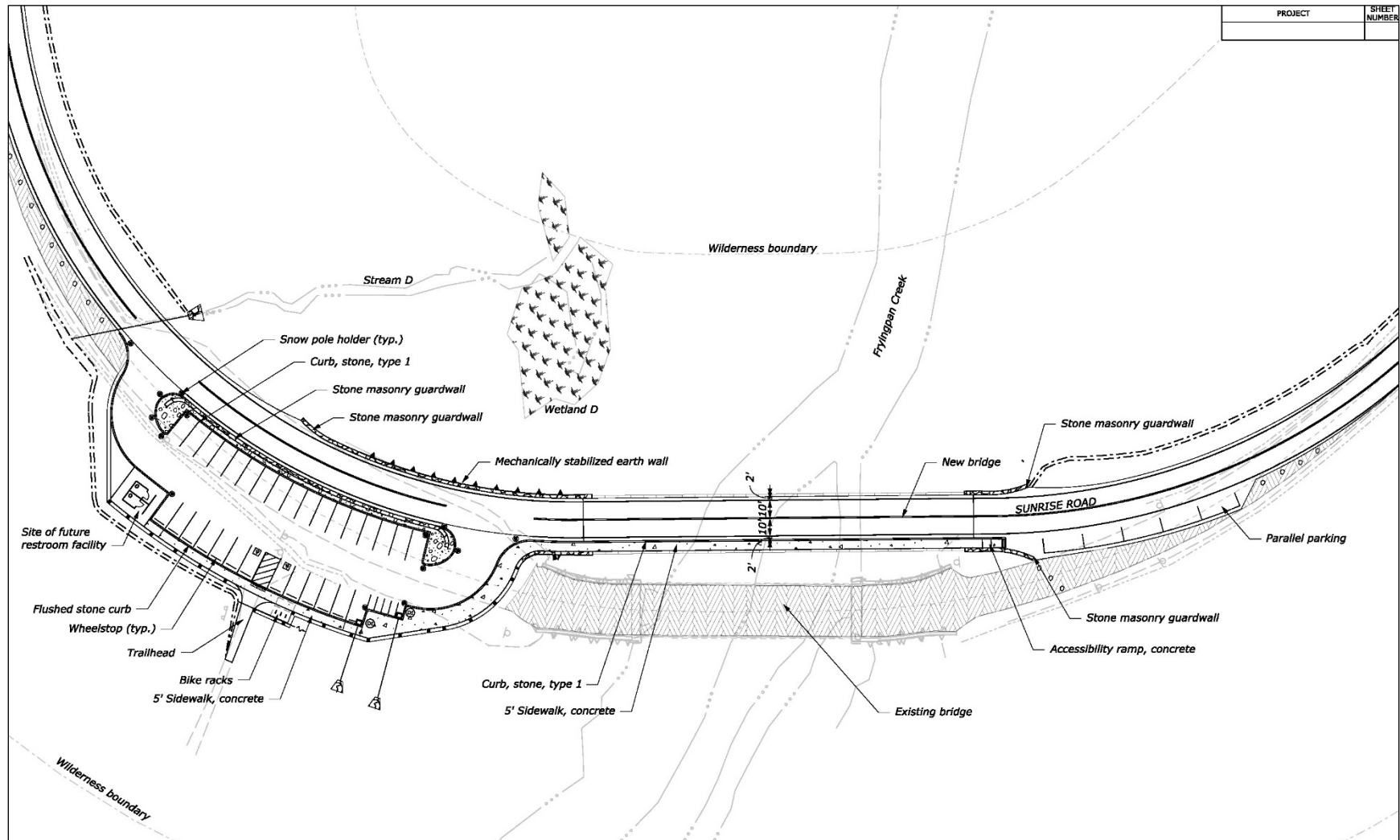




Figure 6a. Additional Trailheads and Trail Spurs to Wonderland Trail

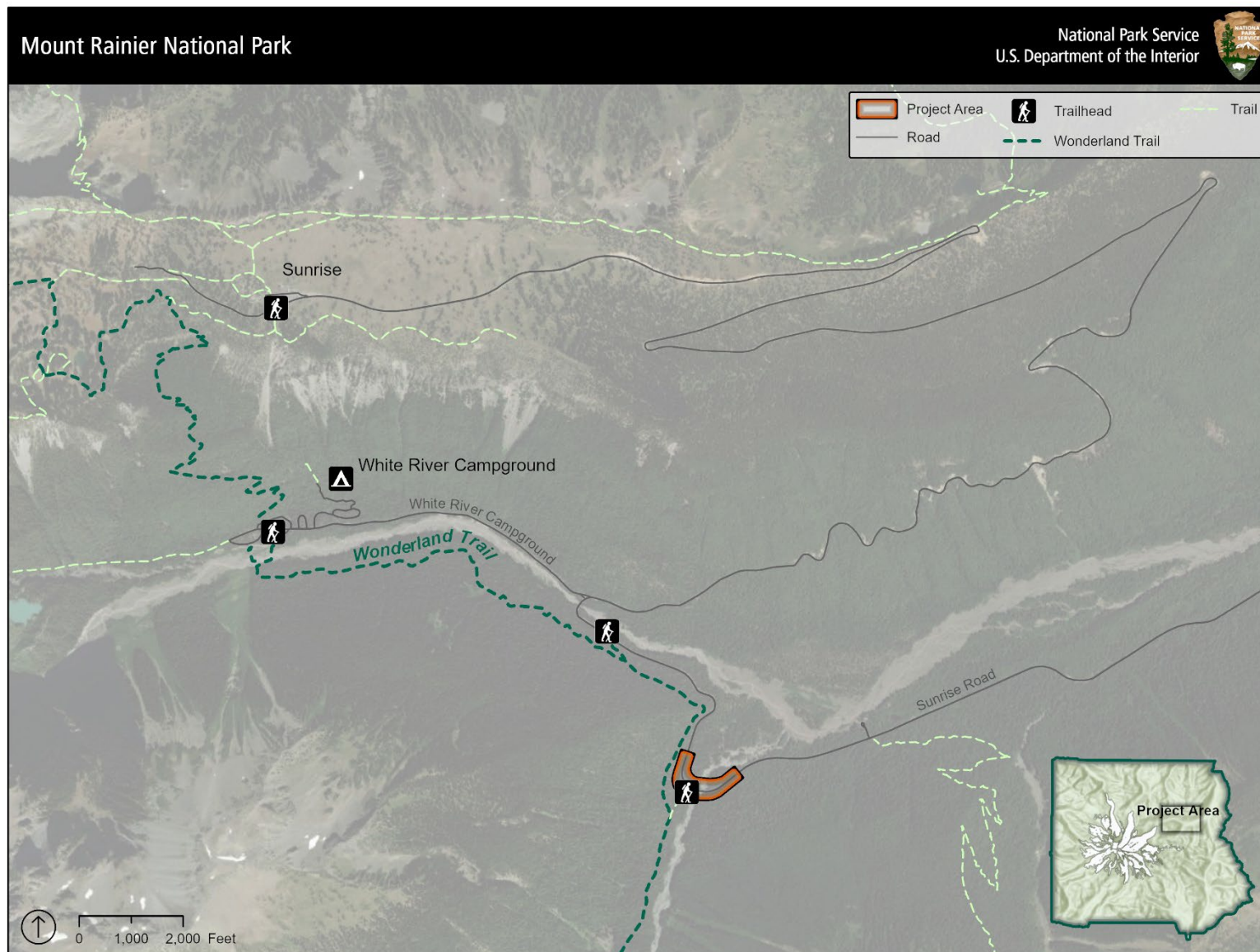
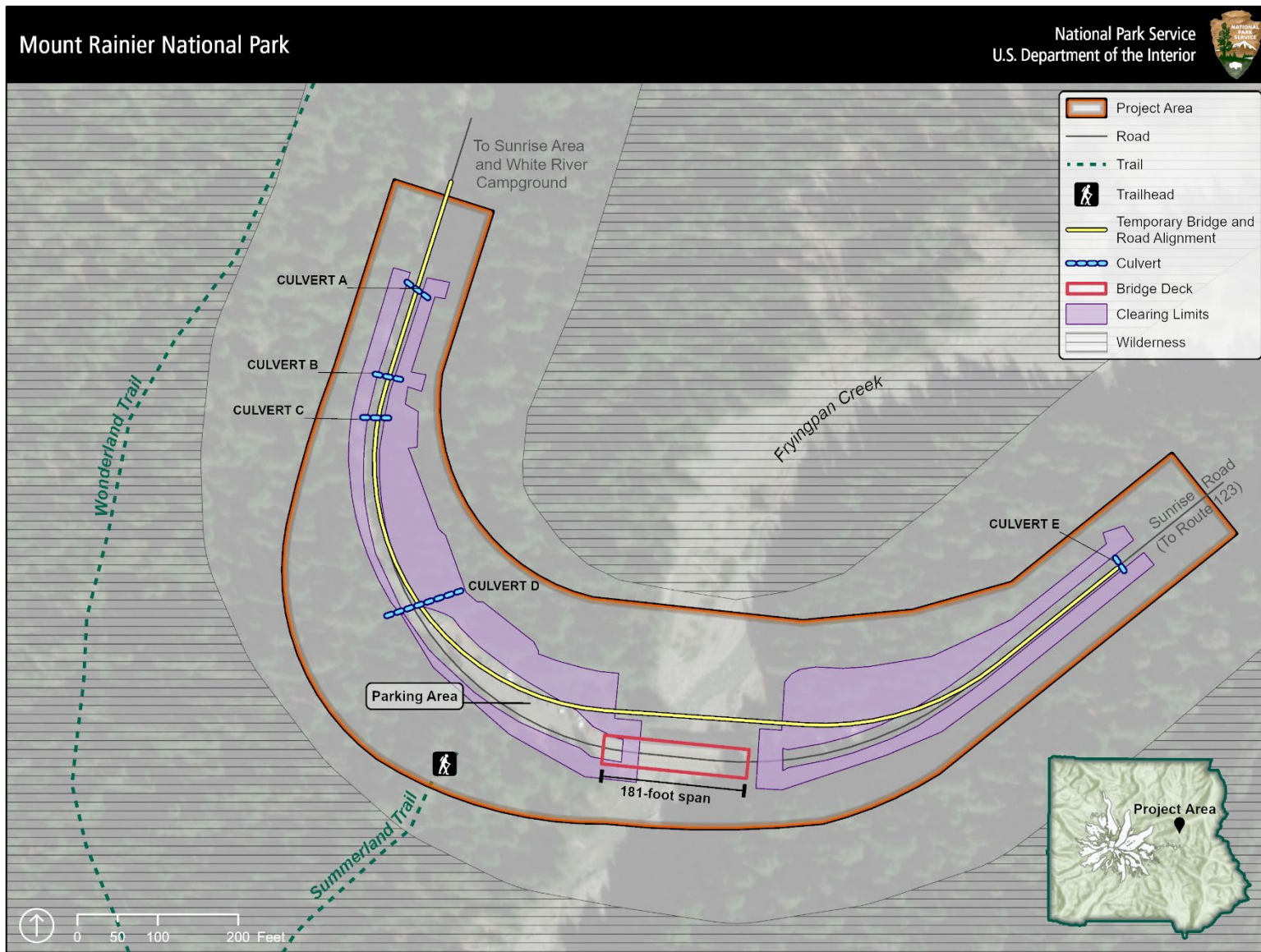


Figure 7. Alternative C – New Bridge on the Existing Alignment



## **Wilderness**

As stated in the EA, about 97% of the park is designated as wilderness (NPS 2015). The Wilderness Act (Public Law 88-577) defines wilderness as “an area where the earth and its community of life are untrammeled by man, where man himself is a visitor and does not remain.” The intent of the act is to “secure for the American people of present and future generations the benefits of an enduring resource of wilderness.” The management of wilderness areas within the national park system is guided by NPS *Management Policies 2006*, which is supplemented by Director’s Order 41: *Wilderness Stewardship*. The park manages over 228,480 acres of congressionally designated Wilderness guided by the *Mount Rainier National Park Wilderness Management Plan* (NPS 1989<sup>2</sup>, as amended 1990, 1991, and 1992). The plan provides a framework for management actions to preserve and improve wilderness character, while also providing for unique visitor opportunities. Wilderness character includes five qualities:

- Natural – Ecological systems are substantially free from the effects of modern civilization.
- Solitude or a primitive and unconfined type of recreation – Wilderness provides outstanding opportunities for solitude or primitive and unconfined recreation.
- Undeveloped – Wilderness retains its primeval character and influence and is essentially without permanent improvement or modern human occupation.
- Untrammeled – Wilderness is essentially unhindered and free from the actions of modern human control or manipulation.
- Other features – Wilderness preserves other features that are of scientific, educational, scenic, or historical value.

The project area is outside, but adjacent to, designated Wilderness. The Wilderness boundary is generally 200 feet from the centerline of the park roads. Although the proposed action would not occur in Wilderness, some of the improvements proposed may be visible from Wilderness. The proposed action would move the road to within 150 feet of the wilderness boundary to the north, and the parking lot would be within 150 feet of the boundary to the south. Some additional, localized degradations to the viewshed and unconfined recreation would be added through the development of new visitor facilities located near Wilderness. However, the project area has existing development, and the proposed action would replace existing infrastructure. In addition, installing a toilet would reduce toilet paper and human waste in the designated Wilderness. Noise from construction activities could be heard in the Wilderness, but the noise would be localized, short-term, and minimized through BMPs, such as the use of well-maintained and properly functioning equipment and vehicles. Since the Wilderness in the park is vast, it is anticipated that the proposed action would not diminish the wilderness experience or character; therefore, the topic of wilderness was considered but dismissed from further analysis.

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<sup>2</sup> National Park Service (NPS). 1989. *Wilderness Management Plan, Mount Rainier National Park*. Amended 1990, 1991, and 1992. May 15.

- A construction spill prevention, control, and countermeasures plan or hazard spill plan, whichever is appropriate, would be developed and implemented by the contractor.

## **Attachment C: Detailed Sequence of Construction Activities**



### Detailed Sequence of Construction Activities

Construction Activity	Details	Construction Phase
Geotechnical Investigation	<ul style="list-style-type: none"> <li>• Conduct nesting bird survey</li> <li>• Install sediment and erosion controls</li> <li>• Clear a path for drill rig access, including removal of select large trees, vegetation, and uneven ground</li> <li>• Conduct geotechnical drilling (up to 16 boreholes for the abutments and 4 for the parking area)</li> <li>• Stabilize disturbed area</li> </ul>	<ul style="list-style-type: none"> <li>• Preconstruction year 1</li> <li>• September to November (or until snowfall)</li> <li>• Tree removal after Labor Day</li> </ul>
Tree Removal within Construction Limits <sup>1</sup>	<ul style="list-style-type: none"> <li>• Remove remaining trees within the 2.3-acre clearing limits that were not removed during the geotechnical investigation <ul style="list-style-type: none"> <li>– No more than 925 trees total (approximately 922 living trees total – 72 between 18 and 40 inches DBH, 6 greater than 40 inches DBH; two additional dead trees between 18 and 40 inches DBH)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Preconstruction year 2</li> <li>• Between October 1 and March 14</li> </ul>
Site Preparation and Vegetation Removal	<ul style="list-style-type: none"> <li>• Install sediment and erosion controls and stake project limits</li> <li>• Remove remaining vegetation as needed within the 2.3-acre clearing limits</li> </ul>	<ul style="list-style-type: none"> <li>• Construction year 1</li> <li>• Duration of construction season (snow-free periods – spring, summer, and fall)</li> </ul>
Mobilization and Staging	<ul style="list-style-type: none"> <li>• Mobilize equipment to the site</li> <li>• Set up traffic control for lane closures (staging area)</li> <li>• Stage equipment and materials in designated staging areas</li> </ul>	<ul style="list-style-type: none"> <li>• Each construction year</li> <li>• Beginning of each construction season</li> </ul>
Access – Pioneering Earthwork	<ul style="list-style-type: none"> <li>• Complete grubbing within the 2.3-acre clearing limits</li> <li>• Perform excavation to build road to new bridge location</li> <li>• Mechanically remove exposed bedrock to the maximum extent possible</li> <li>• Use blasting techniques to remove remaining bedrock outcrops if needed for the abutments and parking area</li> </ul>	<ul style="list-style-type: none"> <li>• Construction year 1</li> <li>• Duration of construction season</li> <li>• Blasting, if needed, would occur during the in-water work window<sup>2</sup></li> </ul>

Construction Activity	Details	Construction Phase
Access – Construct Temporary Bridge Supports for New or Temporary Bridge	<ul style="list-style-type: none"> <li>• <i>Install temporary diversions and isolation work zones</i></li> <li>• <i>Install temporary shoring to stabilize existing bridge abutments during in-water construction</i></li> <li>• Install temporary piles in dewatered work zones</li> <li>• Construct temporary work platforms on piles</li> <li>• <i>Rewater work zone around temporary bridge supports and remove water diversions</i></li> </ul>	<ul style="list-style-type: none"> <li>• Construction year 1</li> <li>• During in-water work window</li> </ul>
Bridge Construction	<ul style="list-style-type: none"> <li>• Construct new bridge on new alignment <ul style="list-style-type: none"> <li>– Construct drilled shafts (2 to 4 per abutment)</li> <li>– Install concrete pile cap on top of the drilled shafts</li> <li>– Construct new bridge abutments (abutments are outside OHWM)</li> <li>– Install riprap armoring – approximately two thirds would be buried and one third exposed</li> <li>– Erect steel girders and construct bridge deck</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Construction (multiple years)</li> <li>• Duration of construction season</li> <li>• Water work during the in-water work window</li> </ul>
Roadway Construction Phase 1	<ul style="list-style-type: none"> <li>• Remove asphalt, as needed</li> <li>• <i>Replace/install new culverts</i> <ul style="list-style-type: none"> <li>– <i>Install diversions, if needed</i></li> <li>– <i>Cut and remove asphalt, as needed</i></li> <li>– <i>Remove/replace/install culverts and headwalls along new alignment section, subject to final design and permitting</i></li> <li>– <i>Remove diversion and rewater</i></li> </ul> </li> <li>• Excavate and build embankment for road</li> <li>• Construct new supporting walls and stabilize slopes</li> </ul>	<ul style="list-style-type: none"> <li>• Construction</li> <li>• Duration of construction season</li> <li>• In-water culvert work during the in-water work window</li> <li>• Will need to occur before existing bridge can be dismantled</li> </ul>

Construction Activity	Details	Construction Phase
Roadway Construction Phase2	<ul style="list-style-type: none"> <li>• Place and compact road base on new alignment</li> <li>• Asphalt paving on new alignment, approximately 340 feet long on east side of bridge and 590 feet on west side of bridge</li> <li>• Conduct asphalt milling - the portion of the existing roadway where the new alignment ties into the existing road; the limits of this milling go to the first and last culvert replacements</li> <li>• Excavate roadway</li> <li>• <i>Replace remaining culverts along existing alignment further from bridge</i></li> <li>• Install guard walls</li> <li>• Install aggregate base</li> <li>• Conduct asphalt paving</li> </ul>	<ul style="list-style-type: none"> <li>• Construction</li> <li>• Duration of construction season</li> <li>• In-water culvert work during the in-water work window</li> </ul>
Existing Bridge Removal	<ul style="list-style-type: none"> <li>• <i>Set up isolation work zones around existing bridge footings</i></li> <li>• Install debris containment</li> <li>• Salvage masonry</li> <li>• <i>Install temporary shoring to stabilize existing bridge abutments after stone removal during in-water construction</i></li> <li>• Dismantle and dispose of bridge</li> <li>• <i>Excavate below the existing footings to remove the abutment</i></li> <li>• <i>Backfill holes and restore area with appropriately sized stream material</i></li> <li>• <i>Perform site restoration</i></li> <li>• <i>Rewater work zone/remove water diversions</i></li> </ul>	<ul style="list-style-type: none"> <li>• Construction, following completion of new bridge</li> <li>• During in-water work window</li> </ul>
Roadway Removal	<ul style="list-style-type: none"> <li>• Decommission approaches and obliterate old roadway</li> <li>• Recontour and restore to match native ground</li> </ul>	<ul style="list-style-type: none"> <li>• Construction</li> <li>• Post-Bridge Construction</li> </ul>
Trailhead Parking Area Construction	<ul style="list-style-type: none"> <li>• Pending final design</li> <li>• Install drainage</li> <li>• Conduct excavation and build embankment</li> <li>• Install retaining walls, curb/sidewalk, and guard wall</li> <li>• Place and compact parking area base</li> <li>• Conduct asphalt paving</li> </ul>	<ul style="list-style-type: none"> <li>• Construction – once area is no longer needed for bridge construction staging</li> <li>• Duration of construction season</li> </ul>

Construction Activity	Details	Construction Phase
Stripe and install signs	<ul style="list-style-type: none"> <li>• Stripe and install signs for final roadway and new parking area</li> <li>• Shift traffic to new road/bridge</li> </ul>	<ul style="list-style-type: none"> <li>• Final year of construction following completion of final road and parking area paving</li> <li>• Duration of construction season</li> </ul>
Site Restoration	<ul style="list-style-type: none"> <li>• Revegetate 1.7 acres, as appropriate</li> <li>• 0.6 acres of permanent vegetation loss (in area of new road alignment, bridge approach and parking area)</li> </ul>	<ul style="list-style-type: none"> <li>• Duration of construction season</li> </ul>
Revegetation (throughout as needed, final revegetation)	<ul style="list-style-type: none"> <li>• Hydroseed disturbed areas, as needed</li> <li>• Plant wetland species per the NPS-approved revegetation plan</li> <li>• Monitor site to ensure revegetation efforts are succeeding and invasive plants are not becoming established or spreading in disturbed areas</li> <li>• Place boulders</li> </ul>	<ul style="list-style-type: none"> <li>• Post-construction</li> <li>• Duration of construction season</li> </ul>
Final Project Clean-up	<ul style="list-style-type: none"> <li>• Return to normal administrative and public access</li> </ul>	<ul style="list-style-type: none"> <li>• Final step of post-construction</li> </ul>

Text in *italics* indicates in-water work

1 – DBH = diameter at breast height. Estimates are based on inventory within the project area that was available in July 2022

2 – The in-water work is defined as “any activity below the ordinary high-water mark (OHWM).” These activities would be conducted during the in-water work window determined through ESA consultation.

## **Attachment D: Summary of Public Comments**

## Introduction

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The NPS, in cooperation with the FHWA, has prepared an EA to evaluate the impacts of improving the Fryingpan Creek Bridge in Mount Rainier National Park (the park) located in Pierce County, Washington. The EA has been prepared to meet NPS guidelines that implement NEPA and in accordance with Section 106 of the NHPA.

The project area is located in the northeast portion of the park along Sunrise Road, a 15-mile section of highway that provides the sole vehicular access from Mather Memorial Parkway (Highway 410) to the Sunrise Developed Area and White River Campground. The Fryingpan Creek Bridge is approximately 3 miles west of the White River Entrance and is vital to park operations, local economies, and visitor use and enjoyment. The Fryingpan Creek Bridge is a contributing resource of the Yakima Park Highway, which is a historic road within the Mount Rainier NHL. The road alignment is a contributing element of this landmark. The NHL is considered the most complete example of NPS master planning in the first half of the 20th century. The developed areas of the park contain some of the nation's best examples of intact NPS Rustic style architecture and naturalistic landscape architecture of the 1920s and 1930s.

This project would ensure sustainable vehicular access on Sunrise Road to the Sunrise Developed Area, White River Campground, and trails in this area of the park. The most current Bridge Inspection Report by FHWA (August 2020) noted that the bridge is in fair to poor condition overall with severe deterioration of the curbs, cracking and flaking on the deck underside, widespread failure of the lead-based paint, and undermining at both abutments (the substructures that support both ends of the bridge).

## Summary of the Public Review Process

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This public comment report summarizes comments received during the public review of the EA for the Fryingpan Creek Bridge Replacement Project. The NPS posted the EA for public review from April 5 to May 7, 2023. The public was notified of the availability of the EA for review through a press release on April 4, 2022 that was distributed electronically and posted on the NPS PEPC website, as well as on social media. The press release provided a link to the EA and an updated web presentation (an ArcGIS StoryMap) that provided information about the project area, alternatives, resources analyzed, and potential impacts.

The NPS also hosted a virtual public meeting on April 12, 2023. The park, FHWA, and contractor staff presented information on the project and the potential options and held a question-and-answer session. The public was encouraged to submit their comments on the Fryingpan Creek Bridge Replacement Project electronically through the NPS PEPC website (<https://parkplanning.nps.gov/bridgeoptions2022>).

The public will continue to be notified of the project's progress via press releases, website updates, and social media posts. Interested parties are encouraged to visit the NPS PEPC website (<https://parkplanning.nps.gov/bridgeoptions2022>) to view information about this project.

## Definition of Terms

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The primary terms used in this document are defined below.

**Correspondence.** A correspondence is an entire document received from a commenter. It can be in the form of a letter, email, written comment form, notecard, or petition. Each piece of correspondence is assigned a unique identification number in the PEPC system.

**Comment.** A comment is a portion of the text within a correspondence that addresses a single subject. It could include information such as an expression of support for or opposition to the use of a potential management tool, additional data regarding an existing condition, or suggestions for additional considerations in the impact analysis. Comments were determined to be substantive or non-substantive using Section 4.6, *Circulating Environmental Assessments and Environmental Impact Statements, Soliciting Public Comments, and Responding to Comments*, of the NPS NEPA Handbook as guidance.

**Substantive Comment.** Section 4.6 of the NPS NEPA Handbook defines a substantive comment as a comment that does one or more of the following:

- Question, with reasonable basis, the accuracy of the information in the NEPA document
- Question, with reasonable basis, the adequacy of the environmental analysis
- Present reasonable alternatives other than those presented in the NEPA document
- Cause changes or revisions in the proposal

In other words, substantive comments raise, debate, or question a point of fact or analysis.

## Public Comment Analysis

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The NPS PEPC database was used to manage the comments. The database stores the full text of all correspondences and allows each comment to be coded by topic. The database produces tallies of the total number of correspondences and comments received, can sort and report comments by a particular topic, and provides demographic information on the source of each correspondence. During public review for this EA, the NPS received 39 individual correspondences directly through the PEPC system from individuals in three states (Washington, Idaho, and Oregon). Commenters had an opportunity to list an agency or organization when entering their information and commenting in PEPC. The following agencies and organizations were provided by commenters: Washington Trails Association, The Mountaineers, Mount Rainier National Park Associates, and Renton Women's Hiking Group.

Comment analysis is a process used to compile and combine similar public comments into a format that can be used by decision-makers and the project team. Comment analysis helps the project team in organizing, clarifying, and addressing similar information pursuant to NEPA regulations. It also aids in identifying the topics and issues to be evaluated and considered throughout the planning process.

A coding structure was developed to capture the content of all the comments received and to help sort comments into logical groups by topic and issue. The coding structure was derived from an analysis of the range of topics from public comments. Analysis of the public comments involved assigning codes to comments made in the correspondences.

All comments were read and analyzed in the process of preparing the decision document, the finding of no significant impact (FONSI). All substantive comments were summarized by developing concern statements, which are provided in the following section. A response was prepared for each concern statement. If changes to the EA were warranted to address a concern, this was done via the errata in the FONSI. For changes made through the errata, the response provides a brief summary of how the edits were addressed for that concern. If the information requested or suggested was already included in the EA, the response guides readers to the appropriate location(s) within the document. These concerns and corresponding responses are provided in the following section.

## Public Comment Summary

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### Comments Pertaining to Access during Construction

**Concern Statement:** The NPS should provide details about the closure of the Summerland Trailhead and access to the Wonderland Trail during construction.

**NPS/FHWA Response:** The Summerland Trail and Wonderland Trail will not be closed during construction. The Summerland Trailhead at the Fryingpan Creek Bridge parking lot will be closed during construction for visitor safety. Visitors will be able to access the Wonderland and Summerland trails via other trailheads (see new trailhead figure in the errata). The NPS acknowledges that this adds about 3 miles to the hike if starting at the White River Campground. However, the existing parking lot near the Fryingpan Creek Bridge will be used as a staging area, creating an unsafe situation for visitors hiking through a construction area where heavy equipment and potential blasting will be used. As stated in the EA, the park will post the schedule, delays, closures, and/or other information on its website and other social media sites.

### Suggests a New Alternative or Alternative Element

**Concern Statement:** The NPS should add electric vehicle (EV) charging stations at the new parking area.

**NPS/FHWA Response:** The Summerland Trailhead area does not have power and could not support EV charging stations. EV charging stations are available near lodging facilities in the park, including at Longmire and Paradise.



**Concern Statement:** The NPS should consider repairing the abutments, using the existing superstructure, and moving these elements slightly downstream onto a new foundation. This would be a more cost-effective alternative than building a completely new bridge and would allow the NPS to construct a stronger and more resilient foundation that would withstand flooding into the future.

**NPS/FHWA Response:** This is not a feasible alternative. Aside from the scour at the abutments and foundation, there are several other elements of the bridge that are failing. Other problems include severe deterioration of the curbs; widespread cracking with efflorescence and spalling with exposed rebar on the deck underside; and widespread paint failure with minor rusting of the structural steel. There is also minor cracking in the concrete tee beams of both approach spans. The existing steel deck arch bridge is in fair to poor condition overall.

**Concern Statement:** The new bridge should include design elements that look better from the streambed; the existing bridge is unattractive when viewed from below.

**NPS/FHWA Response:** The NPS does not currently maintain an access route to view the Fryingpan Creek Bridge from the streambed. Fryingpan Creek provides critical habitat for bull trout, a species listed as threatened under the federal Endangered Species Act. Recreation in the stream area below the bridge is not encouraged.

**Concern Statement:** Commenters suggested designing the bridge to look like the bridge over Christine Falls.

**NPS/FHWA Response:** The NPS and FHWA are designing the new bridge to be compatible with the Mount Rainier NHL. The NPS plans to incorporate stones from the original bridge into the new bridge abutments; however, a design similar to what is provided at Christine Falls would be difficult to construct and very costly due to the weight of the stone masonry for a bridge spanning Fryingpan Creek in this location.

## **Questions an Element of the Preferred Alternative**

**Concern Statement:** The NPS should clarify the construction and closure schedules to make visitors aware of when the Summerland Trailhead would be closed (during all phases of construction or only during parts of construction) and stated closures will need to be communicated to the public.

**NPS/FHWA Response:** The Summerland Trailhead and parking area will be closed during the fall months of the pre-construction phases (2), and during the three construction seasons (summer/fall). Small areas of the parking lot may also be closed during the post-construction season for staging equipment and site restoration activities. The NPS will open the area to parking and hiking when public use will not compromise safety or impede construction activities.

**Concern Statement:** The NPS should clarify the location of the staging area east of the project area.

**NPS/FHWA Response:** The staging area east of the project area is a gravel pullout located approximately 0.2 mile east of the Owyhigh Lakes Trailhead. The Owyhigh Lakes Trailhead parking area would not be used for staging. This pullout is not a formal parking area; however,

it is sometimes used for overflow parking, resulting in a loss of several parking spaces for the duration of construction.

**Concern Statement:** The document should provide details on the disposition of the trees harvested from the project area.

**NPS/FHWA Response:** Page 8 of the EA states that “woody debris may be placed downstream of the riprap to reduce the energy of the flow and provide protection of the channel banks while also providing improved aquatic habitat within Fryingpan Creek.” Some of the trees removed in the area of construction would be used for this in-stream work. Some trees will be used for site restoration as part of the soil recontouring and revegetation following construction. Remaining trees would be made available to support other park construction needs, may be made available to traditionally associated Tribes if requested, or would otherwise be removed from the park.

**Concern Statement:** The EA states that resource monitors would be onsite to monitor for potential impacts on archeology and fish. The NPS should clarify whether monitors will be employed during construction to monitor impacts to other resources as well.

**NPS/FHWA Response:** FHWA construction inspectors will be on site daily to monitor and verify that all construction activities are being conducted in accordance with environmental commitments, permits, and contract requirements. Additionally, the construction contractor will be required to conduct qualitative and quantitative water quality monitoring, which will be overseen and routinely verified by FHWA.

**Concern Statement:** Commenters questioned if the introduction of gray wolves is part of this project.

**NPS/FHWA Response:** The introduction of gray wolves into the park is not part of this project and is beyond the scope of this project. Potential impacts to gray wolves were considered due to the possibility that gray wolves may migrate into the park and project area in the future.

## **Comment Pertaining to the Number of Formal Parking Spaces**

**Concern Statement:** The existing parking area for the Summerland Trailhead is inadequate and results in very poor parking decisions along with some dangerous pedestrian crossings. Some visitors have been unable to find parking or have avoided this trailhead due to the parking situation. Commenters requested increasing parking capacity to the maximum extent possible at the Summerland Trailhead for access and safety.

**NPS/FHWA Response:** Alternative B, the NPS preferred alternative, will provide additional designated parking spaces through the construction of a new parking area on the same side of the road as the Summerland Trailhead. The location of the parking area will address safety concerns because visitors will no longer have to cross Sunrise Road to access the trailhead. Additionally, the parallel parking spaces that will be provided on the east side of the bridge will be connected to the trailhead area via a pedestrian sidewalk that crosses the bridge. As

described on page 11 of the EA, the NPS and FHWA are discussing various design options for the parking area with up to 40 striped parking spaces, taking into consideration the cost, topographic site constraints, and impacts on park resources.

### **Comments Pertaining to Visitor Use**

**Concern Statement:** Proposed changes to the parking lot will cause more crowding at the Summerland Trailhead.

**NPS/FHWA Response:** The trailhead parking area is intended to replace the parking spaces that will be lost as a result of the new bridge alignment, and to provide a dedicated space for parking to limit impacts associated with the high amount of roadside parking in the project area. The new parking area would not be designed to increase the overall number of cars accessing the trailhead at this location.

### **Comments Pertaining to Wilderness**

**Concern Statement:** Designated wilderness should have been included as a resource topic either fully analyzed or included in Appendix A: Resource Topics Dismissed as Stand-Alone Topics from Detailed Analysis.

**NPS/FHWA Response:** The NPS agrees that wilderness should have been included in appendix A as a topic considered but dismissed. The team considered wilderness throughout the project and included potential effects to wilderness within the visitor use and experience topic (page 78 and 81). The NPS acknowledges temporary effects (only during construction) to wilderness from construction noise. The project would have no direct effect on designated wilderness. Dismissal language has been added to the assessment via the errata.

**Concern Statement:** The figures in the EA should show the wilderness boundary in relationship to the alternatives, and the document should note the distance of the existing road and bridge to the wilderness boundary, as well as whether the infrastructure under either of the action alternatives would encroach on designated wilderness.

**NPS/FHWA Response:** Revised figures showing the wilderness boundary are added in the errata to illustrate the alternative locations in relationship to the boundary. The figures showing the alternatives have been revised to show the wilderness boundary and are included in the errata.

**Concern Statement:** Because Alternative B would result in a decrease in the buffer between the realigned road and bridge and the wilderness boundary, the NPS should state whether it has plans to redraw the wilderness boundary to maintain the 200 from centerline.

**NPS/FHWA Response:** This project is entirely outside of designated wilderness. The NPS will not be revising the boundary based on this project. There are no buffer zones in wilderness boundary designation.

## Non-Substantive Comments

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In addition to the substantive comments received and summarized above, the park also received comments from individuals who expressed support for the Preferred Alternative and the rationale provided in the EA. The park also received comments from individuals highlighting the value of mitigation measures included in the proposal to avoid or minimize impacts associated with the project. Although not required in the comment analysis, the park determined that some non-substantive comments warranted a response. Concern statements summarizing these comments and responses are presented below.

### Comments Pertaining to Long-term Access

**Concern Statement:** Commenters support long-term solutions, including a new bridge, wider road, and better parking, to provide access to the trailhead and the Sunrise area, enabling better traffic flow and safe parking that does not obstruct the roadway to support visitors, and continued access for NPS maintenance vehicles and buses.

**NPS/FHWA Response:** By implementing Alternative B, the NPS preferred alternative, the NPS will be providing reliable and safe access to the Summerland Trailhead and the Sunrise area.

### Comments Pertaining to Access during Construction

**Concern Statement:** The NPS should explain to the public how it will manage parking at other trailheads while the Summerland Trailhead is closed, and how the park will mitigate the associated vegetation impacts at these trailheads caused by the additional use.

**NPS/FHWA Response:** The NPS will provide information on the trailhead closures and the alternative trail access areas. However, parking at these alternative areas would not be expanded and visitors would be expected to park within the allotted spaces. Parking may be more difficult at these alternative access points for visitors during the construction period.

**Concern Statement:** The commenter is concerned about access to the trailhead during construction and states that temporary parking and trailhead access should be provided during construction.

**NPS/FHWA Response:** Due to safety concerns, the NPS will not allow visitors to access the Summerland Trailhead during construction. Constructing a temporary parking area and trail access would require additional planning, design, and construction, which would lead to additional impacts from the removal of mature forest, ground clearing and grading. Visitors will need to use alternative parking areas and trailhead access points during project construction. See the errata for the figure that shows the locations of near-by parking and trail access.

### Comments Pertaining to Wilderness

**Concern Statement:** The NPS should consider monitoring noise during construction because this would provide valuable understanding of noise impacts for this type of construction project.

**NPS/FHWA Response:** The NPS periodically monitors noise, particularly during blasting events and also includes some spot-checking during construction. The NPS will consider implementing a more comprehensive noise monitoring program as part of this project.

## **Comments Pertaining to Visitor Use**

**Concern Statement:** The proposed amenities, including restrooms, parking on trailhead side of road, walls, signs, and sidewalk, will provide educational opportunities and increase visitor enjoyment and safety in this area of the park.

**NPS/FHWA Response:** Alternative B, the NPS preferred alternative, will provide additional amenities that will improve visitor experience and provide more accessibility to this area. It will also provide opportunities for education and interpretation.

## **Comments Pertaining to Natural Resources**

**Concern Statement:** Protecting natural channel processes and creek hydrology and allowing for migration of the creek and passage of more debris is important and will also make the roadway and bridge more resilient to climate change.

**NPS/FHWA Response:** The project will remove the bridge abutments from the active channel, thus improving the natural channel process. The NPS also acknowledges that this will cause the loss of a small amount of forest including within a small area of wetland buffer.

**Concern Statement:** The project should be designed to preserve as many of the existing trees and as much vegetation as possible.

**NPS/FHWA Response:** The project will be implemented to preserve as many of the existing trees as possible while meeting the needs for construction access to replace the Fryingpan Creek Bridge and build a replacement trailhead parking lot that meets accessibility standards.

**Concern Statement:** Only sterile soil should be used when revegetating areas to reduce invasive species in the park.

**NPS/FHWA Response:** Appendix B of the EA (pages 99 to 105) presents resource protection measures for the project and includes measures to address vegetation. On pages 102 and 103 is a measure that states topsoil will be certified as free “from noxious weeds, invasive plants, and other deleterious materials by a federal, state, or local public agency.” The NPS considers sterile soils as a “weed-free” option and would consider its use if available.

**Concern Statement:** To reduce impacts on natural resources, the NPS should add as few parking spaces as needed.

**NPS/FHWA Response:** The parking lot design will be updated to minimize the extent of ground disturbance and vegetation removal needed to provide for a well-defined trailhead parking area that meets accessibility requirements and provides up to 40 formal parking spaces. The number of spaces is intended to replace both designated parking and roadside parking that will be eliminated through the construction of a new bridge on a new alignment.

## **Attachment E: A Non-Impairment Determination**

## The Prohibition on Impairment of Park Resources and Values

NPS *Management Policies 2006*, section 1.4.4, explains the prohibition on impairment of park resources and values: “While Congress has given the Service management discretion to allow impacts within parks, that discretion is limited by the statutory requirement (generally enforceable by the federal courts) that the Park Service must leave park resources and values unimpaired unless a particular law directly and specifically provides otherwise. This, the cornerstone of the 1916 Organic Act, establishes the primary responsibility of the National Park Service. It ensures that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them. The impairment of park resources and values may not be allowed by the Service unless directly and specifically provided for by legislation or by the proclamation establishing the park. The relevant legislation or proclamation must provide explicitly (not by implication or inference) for the activity, in terms that keep the Service from having the authority to manage the activity so as to avoid the impairment.”

### What is Impairment?

NPS *Management Policies 2006*, Section 1.4.5, “What Constitutes Impairment of Park Resources and Values,” and section 1.4.6, “What Constitutes Park Resources and Values,” provide an explanation of impairment. “Impairment is an impact that, in the professional judgment of the responsible NPS manager, will harm the integrity of park resources or values, including the opportunities that otherwise will be present for the enjoyment of those resources or values.” Section 1.4.5 of NPS *Management Policies 2006* states: “An impact to any park resource or value may, but does not necessarily, constitute impairment. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- Identified as a goal in the park’s general management plan or other relevant NPS planning documents as being of significance.

An impact would be less likely to constitute an impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of park resources or values and it cannot be further mitigated. An impact that may but would not necessarily lead to impairment may result from NPS activities in managing the park, visitor activities, or activities undertaken by concessioners, contractors, and others operating in the park. Impairment may also result from sources or activities outside the park.” Per section 1.4.6 of NPS *Management Policies 2006*, park resources and values that must be evaluated for impairment include:

- “the park’s scenery, natural and historic objects, and wildlife, and the processes and condition that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural

visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structure, and objects; museum collections; and native plants and animals;

- appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them;
- the park's role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and
- any additional attributes encompassed by the specific values and purposes for which the park was established.”

## **Impairment Determination for the Selected Alternative**

This determination on impairment has been prepared for the NPS selected alternative described in the FONSI. An impairment determination is made for all resource impact topics analyzed for the selected alternative. An impairment determination is not made for visitor use and experience because impairment findings relate back to park resources and values, and this impact topic is not generally considered to be a park resource or value according to the Organic Act and cannot be impaired in the same way that an action can impair park resources and values. Based on the evaluation of potential impacts identified in the EA, the topics evaluated for impairment include soils and vegetation, wetlands, floodplains, special status species, and cultural landscapes and historic structures. Impacts on these resources will be reduced to the extent possible through mitigation measures and BMPs, as described in attachment A.

***Soils and Vegetation*** – The selected alternative will affect approximately 2.3 acres of soils and vegetation through vegetation removal, grubbing, and grading. Approximately 0.6 acre of vegetation will be permanently removed due to realignment of the road to accommodate construction of a new bridge with a longer span and abutments placed outside of the active channel of Fryingpan Creek and the construction of a new parking area to replace the current parking area that will be removed due to the realignment of the road. Following construction, the remaining 1.7 acres will be recontoured and revegetated with native plant species, monitored for five years, treated for nonnative invasive species, and replanted, as necessary. Vegetation will require decades to mature and approach conditions in the adjacent forest, and these restored areas are likely to develop differently within the forest opening created by the construction of a new bridge over Fryingpan Creek; however, the acreage is minimal and is located adjacent to the busy Sunrise Road. Additionally, this area was previously disturbed during the initial development of the Sunrise Road and original construction of the Fryingpan Creek Bridge. Because the impacts to vegetation and soils are confined to a small area and the disturbed areas will be replanted and monitored for success, the Selected Alternative will not result in impairment because ample habitat will remain available in the surrounding forest and the loss would be insignificant in the context of the Fryingpan Creek drainage and White River basin within Mount Rainier National Park as a whole.



***Wetlands*** – The selected alternative is designed to avoid impacts to wetland areas within the project area as a whole; however, the project will result in limited long- and short-term impacts on wetlands and wetlands buffers. Construction activities will result in permanent loss of 0.02 acre of wetlands, streams, and ditches and 0.6 acre of wetland buffers. The 0.6 acre of wetland buffer is the same area described above for soils and vegetation that will be developed as part of the realignment of the Sunrise Road to support construction of a longer bridge and to replace the parking that will be removed as part of the road realignment. By replacing five larger culverts in the project area, the NPS will improve hydrologic function in the area, reducing impacts, such as scour and erosion, on wetlands. The overall impact will be beneficial, and the selected alternative will not result in significant impacts or impairment to the park's wetlands.

***Floodplains*** – Construction and demolition activities will have temporary and short-term adverse impacts on the floodplain due to the work needed to construct access to build the new bridge and removal the existing bridge. Removal of the existing bridge and its abutments from the floodplain and construction of a new bridge with abutments located outside of the active channel will allow for more natural channel migration and will be beneficial to fish and wildlife in the long term. Overall, the selected alternative will have long-term beneficial impacts on the floodplain and will not result in impairment to the park's floodplains.

***Special Status Species*** – The NPS obtained a preliminary list of ten special status species that may occur in the project area — bull trout, Chinook salmon, steelhead, northern spotted owl, marbled murrelet, yellow-billed cuckoo, Mount Rainier white-tailed ptarmigan, gray wolf, North American wolverine, monarch butterfly, and whitebark pine. The project area contains designated bull trout critical habitat, EFH for Chinook, coho, and pink salmon, as well as suitable habitat for several park-sensitive amphibian species, including western toad, Cascades frog, coastal tailed frog, and coastal giant salamander. The loss of 2.3 acres of vegetation represents a small loss of potential habitat for these special status species as previously described. Although this is a long-term adverse impact, there are considerable areas of high-quality suitable habitat for these species adjacent to the project area and throughout the park. Although there will be adverse short-term impacts on wetlands, floodplains, and Fryingpan Creek, in the long-term, the widened bridge and the improved hydrology from the larger culverts will result in long-term beneficial impacts on the aquatic special status species. The USFWS concurred with the NPS determination that the project may affect, but is not likely to adversely affect northern spotted owl, marbled murrelet, gray wolf, and North American wolverine. The NPS formally consulted with the USFWS and NMFS due to the anticipated adverse effects to listed fish species and habitat associated with short-term construction impacts. Although incidental take to listed fish species is expected during construction, conservation measures and terms and conditions as described in attachment A will be implemented to reduce potential for adverse effects and incidental take to the extent possible. These adverse impacts will not jeopardize the continued existence of listed fish species or result in the adverse modification of critical habitat. The park will continue to provide high-quality habitat in the Fryingpan Creek drainage and White River basin, as well as other fish-bearing waters of the park and implementation of the selected alternative will not cause impairment to special status species.

***Cultural Landscapes and Historic Structures*** – The selected alternative will result in adverse effects due to the removal of the deteriorated historic bridge, modification to a portion of the historic road alignment, and changes to other features of the Mount Rainier NHL, and the Yakima Park Highway within the project area associated with vegetation removal and construction. These impacts, though adverse, will be mitigated to address the adverse effects by ensuring the new bridge is designed and constructed to be compatible with the Mount Rainier NHL. A memorandum of agreement has been developed and signed among the NPS, FHWA, and SHPO to define project stipulations that will be implemented to address the adverse effects associated with the project. Although site-specific adverse effects will occur, they will not alter the overall characteristics of the historic district to the extent that the NHL would no longer qualify for inclusion in the NRHP. The Sunrise Road and other contributing features to the NHL will continue to represent the rustic style for which the Mount Rainier NHL was designated and will not impair this nationally significant historic district.

## **Summary**

Although site-specific adverse effects to park resources will occur as a result of the Fryingpan Creek Bridge Replacement project, these effects are the unavoidable result of an action necessary to preserve or restore the integrity of park resources or values that cannot be further mitigated. This includes the integrity of Fryingpan Creek and its associated habitat values and also the appropriate opportunities for visitor enjoyment of the park's resources that rely on administrative and public vehicular access across Fryingpan Creek to reach the Sunrise Area, White River Campground, and numerous wilderness trailheads within Mount Rainier National Park. Accordingly, the NPS has determined that implementation of the selected alternative will not constitute impairment of the resources of the park. This conclusion is based on consideration of the park's purpose and significance, a thorough analysis of the environmental impacts described in the EA, comments provided by the public, in consultation with traditionally affiliated tribes, other agencies, and the professional judgment of the decision maker guided by the direction in NPS *Management Policies* 2006.