



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

**Yellowstone National Park  
Wyoming, Montana, Idaho**

**FINDING OF NO SIGNIFICANT IMPACT  
Fishing Bridge to Indian Pond Road Reconstruction**

Recommended:

Daniel N. Wenk  
Superintendent, Yellowstone National Park

8/23/2017  
Date

Approved:

Sue E. Masica  
Regional Director, Intermountain Region, National Park Service

9/8/17  
Date

## **INTRODUCTION**

In compliance with the National Environmental Policy Act (NEPA), the National Park Service (NPS) prepared an Environmental Assessment (EA) to examine alternative actions and environmental impacts associated with the following proposed project. The NPS in cooperation with the Federal Highway Administration (FHWA) propose to reconstruct a segment of the East Entrance Road from Fishing Bridge to Indian Pond (3.2 miles) within Yellowstone National Park. The East Entrance Road connects the central portion of Yellowstone and the Grand Loop Road system to U.S. Highway 14/20, and provides a connection to communities of Cody, Powell, Thermopolis, and others in Central Wyoming. The project is needed to repair this segment of road due to its advanced state of deterioration, inconsistent width, two bridges on the segment considered in poor condition, and because of increased vehicle use.

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

## **SELECTED ALTERNATIVE AND RATIONALE FOR THE DECISION**

Based on the analysis presented in the EA, NPS selected Alternative B – Reconstruct and Rehabilitate a Portion of the East Entrance Road and Rehabilitate Fishing Bridge (the NPS proposed and preferred alternative - pages 14-32 in EA).

The selected alternative will improve conditions on this 3.6 mile road segment by reconstructing a portion of the East Entrance Road to meet modern highway standards, improve circulation for modern sized vehicles, accommodate increased vehicular traffic, minimize impacts to natural and cultural resources, and maintain the character of historic resources. The design speed will be 45 mph to remain consistent with other park roads.

A turn lane will be added at Fishing Bridge Village between the two driving lanes to improve access to the village. The existing frontage road will be retained and parking areas along this road will be repaved to improve their condition and safety for visitors. The width of the vegetated island separating this road from the East Entrance Road will be increased to improve turning space. Drainage structures, curbing, and pavement markings will be rehabilitated or added at problem areas. To improve circulation, visitor safety, and usability, the parking area between the East Entrance Road and the businesses will be reconstructed to address drainage and surfacing. Curbs and sidewalks will be improved with some new short sections constructed along the business frontage. To address a shortage of parking east of the general store, the existing lot will be expanded by approximately 70 spaces.

The intersection of the Grand Loop Road and the East Entrance Road will be reconstructed with additional turn lane capacity to accommodate increased vehicle use. Turnouts along this road segment will be reconstructed to improve parking and turning. Two turnouts will be relocated to accommodate centerline movement of the road. The parking lot for the Visitor Center/Museum will be repaved and historic curb stones will be reset or replaced in-kind to maintain the historic character of the Fishing Bridge National Historic Landmark. Existing pedestrian walkways to the museum will be reconstructed and regraded in order to comply with accessibility guidelines and standards.

The Pelican Valley Trailhead parking and entrance will be reconstructed to improve vehicle accessibility and better define parking locations. The existing access road will be removed and

the area restored. The existing trailhead parking area will be enlarged by about 20-30% and paved to accommodate an increase in users and larger vehicles. The Pelican Creek Bridge will be removed and replaced with a viaduct over the wetland. The new viaduct will be located on a parallel alignment and offset to the south of the existing road to allow traffic while the viaduct is under construction. Fishing Bridge will be rehabilitated in kind with the addition of Fiber Reinforced Polymer jackets on all timber piles and the bridge will maintain its historic character. A full closure of the road will not be implemented until October 15th, rather than after Labor Day as stated in the EA in order to address economic concerns from gateway communities.

## **Rationale**

Alternative B was selected because it best meets the project purpose to:

- Maintain vehicle access for this road segment and address safety concerns.
- Reconnect the wetlands of the Pelican Creek drainage and allow the creek to naturally migrate within the floodplain.
- Maintain the historic character of the roads, bridges, and other historic resources.
- Minimize impacts to park resources.
- Provide access to facilities for modern vehicle sizes.
- Provide better viewing opportunities along the road.

## **MITIGATION MEASURES**

The selected action will implement a number of resource protection measures to minimize the degree and/or severity of adverse effects on soils, vegetation, wetlands, cultural resources, and threatened and endangered species. Refer to Appendix A for a complete list of all mitigation measures that will be implemented for the selected action.

## **PUBLIC INVOLVEMENT/AGENCY CONSULTATION**

Initial public scoping for the project occurred from February 10, 2016, through March 16, 2016. The Environmental Assessment was made available for public review and comment from April 25, 2017, through May 26, 2017. During this time, 99 pieces of correspondence were received from the public. Responses to substantive public comments are included with the Errata sheet.

This project is consistent with the Yellowstone Parkwide Road Plan 2008-2028. Consultation was completed with the United States Fish and Wildlife Service via formal consultation in 2008 on a Biological Assessment for the Parkwide Road Plan. Determinations were “no effect on Canada lynx (*Lynx Canadensis*) or Canada lynx critical habitat”, “may affect, but would not adversely affect” grizzly bears (*Ursus arctos horribilis*), and “may affect, but would not adversely affect” gray wolves (*Canus lupus*). Since the completion of the EA, the grizzly bear and gray wolf are no longer considered threatened within the park; only Canada lynx and lynx critical habitat are listed within Yellowstone National Park.

Implementing the selected alternative will result in adverse effects on the East Entrance Road Historic District through the removal of the historic Pelican Creek Bridge. That adverse effect was resolved through the *Programmatic Agreement Among NPS, the Advisory Council on Historic Preservation, Wyoming State historic Preservation Officer, Montana State Historic Preservation Officer, for Principle Park Road System Improvement for Yellowstone National Park* (Roads PA). The park received a letter from the WYSHPO on June 7, 2017 concurring that no adverse impacts would occur to listed properties other than the Pelican Creek Bridge.

Tribal consultation letters were mailed in February 2016 and May 2017, to members of Yellowstone's 26 associated tribes. Only two clarification responses were requested from tribes and those were addressed.

## **FINDING OF NO SIGNIFICANT IMPACT**

The Council on Environmental Quality (CEQ) regulations at 40 CFR Section 1508.27 identify ten criteria for determining whether the Selected Action will have a significant effect on the human environment. The NPS reviewed each of these criteria given the environmental impacts described in the EA and determined there will be no significant direct, indirect, or cumulative impacts under any of the criteria.

As described beginning on page 8 of the EA, several potential issues and impact topics were raised during scoping but were not retained for additional analysis, because the effects will not be significant and a detailed analysis was not necessary to make a reasoned choice between alternatives. As a result, these issues and impact topics, which included the following, are not discussed further in this FONSI: Air Quality, Geology, Floodplains, Water Resources, Fish and Wildlife, Soundscapes, Lightscapes, Paleontological Resources, Ethnographic Resources, Indian Trust Resources and Sacred Sites, Socioeconomics, Visitor Use and Experience, Environmental Justice, and Climate Change. In addition, there will be no significant impacts on public health, public safety, or unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the NPS selected alternative will not violate any federal, state, or local environmental protection law.

As described in the EA beginning on page 43, the selected alternative will impact soils, vegetation, wetlands, cultural resources, and threatened and endangered species; however, no potential for significant adverse impacts was identified.

Construction-related activities will adversely affect soils within the project area as a result of work to widen roads, as well as to improve and upgrade parking and roadside pullouts. Physical disturbance to soils will occur through compaction and from grading operations. Approximately 250,000 tons of material (soils, rock, asphalt) will be moved as part of this project. The vast majority of this material will come from removing the Pelican Creek causeway; additional materials will be moved to replace poor-draining road base. The newly constructed road, bridges, walks, and parking will result in a total permanent soil disturbance of approximately 14.72 acres. The impacts to soils will be kept to the construction limit boundaries. Staging/stockpile/disposal areas will impact 9.76 acres of ground for a period of 2-3 years due to compaction and scarification of soils from construction equipment. A 1.32 acre site of an old borrow pit located in the relict Pelican Creek Campground would be reclaimed after filling the area with material removed from the Pelican Creek causeway. Mitigation measures are included to clearly identify work limits, which will keep soil disturbance impacts within these identified work zones. Despite these impacts, the selected alternative will not adversely alter the natural soil systems within the park given the prescribed mitigations and the fact that the park is 2.2 million acres in size, of which approximately 98% is completely undisturbed.

The project will result in permanent vegetation loss of approximately 14.72 acres. The loss of native vegetation will not affect the viability of local plant populations and impacts will be kept to the construction limit boundaries. Removal of roadway embankment material for the current

Staging/stockpiling/disposal areas will adversely affect 9.76 acres of vegetation for a period of 2-3 years during construction. Areas of temporary vegetation disturbance will be restored with native vegetation following construction. None of the vegetation lost is considered to be rare or unique. This type of vegetation can be found along much of the East Entrance Road and areas surrounding the Fishing Bridge development. The loss of 14.72 acres will not change plant diversity in this portion of the park. Infestation and spread of invasive noxious weeds, including cheat grass will be controlled through monitoring and treatment. Monitoring and control efforts will continue for 3-5 years following project completion. Revegetation of disturbed areas is expected to occur within 1-3 years. Given the mitigation measures in place, the relatively small amount of vegetation disturbed and the relatively quick pace of revegetation, impacts to vegetation will not be significant.

Placement of piers for the Pelican Creek viaduct and fill material located at the toe of the slope for parking area expansions of existing and new pullouts and widening of the East Entrance Road will result in the permanent loss of 0.40 acres of wetland. The construction of temporary work platforms for the equipment needed to set girders and drill the piers for the Pelican Creek Viaduct will impact 1.33 acres of wetland. These platforms would be in place for 2-3 years during most of the planned construction, but will be removed and wetlands would be rehabilitated at the end of the project.

By removing the existing Pelican Creek Bridge and replacing it with a 1,500-foot long viaduct, 1.88 acres of palustrine wetland function will be permanently restored. Restoration of these wetland acres will increase the ability to store surface water and provide water vital for streamflow maintenance. The 1.88 acres of restored palustrine wetland will provide habitat for fish, waterfowl and water birds, and other wildlife. Water flow and water infiltration will be restored. The restored wetlands will perform nutrient transformation, sediment and particulate retention, and help shoreline stabilization and retention.

Permanent wetland impacts will be mitigated in accordance with NPS Wetland Protection Guidelines, DO 77-1, by restoring 1.88 acres palustrine wetlands as compensation. The wetland compensation is greater than the size of wetlands lost as a result of implementing the selected alternative. A Wetland Statement of Findings is found in Appendix B.

Archaeologically significant (i.e., eligible for listing on the National Register of Historic Places) sites and portions of sites will be avoided during construction. This will mean that the National Register eligibility status of the sites will not be affected. Data recovery plans will be put in place for any unanticipated discoveries. Archaeological monitoring will take place in areas surrounding the National Register of Historic Places (NRHP) eligible portions of 48YE001. Installation of a formalized pullout in the 48YE001 site will be limited to the non-eligible portion of the site. The pullout will also prevent further deterioration of the site caused by stopping motorists from driving further off of the existing pavement into the eligible portion of the site. A staging area will be located near 48YE549; however, that staging area is designated for water pumping from the Yellowstone River, and impacts to the site will be eliminated by requiring vehicles to remain on the currently graveled road adjacent to the site.

The widening of the East Entrance Road Historic District road and the associated rehabilitation/reconstruction of culverts, headwalls, retaining walls, and curbing will be done in accordance with the park road standard established in the Roads PA. The widened road, parking areas, pullouts, and Pelican Creek Viaduct would be additions of non-contributing elements to the East Entrance Road Historic District; however, these additions will be compatible with historic use and the overall characteristics of the district. The repaving of nine

road pullouts, with some expansion to get parked vehicles fully off of travel lanes, will also be compatible with historic character and use of the district.

The selected alternative will have an adverse effect on the East Entrance Road Historic District through the removal and replacement of the Pelican Creek Bridge. The Pelican Creek Bridge is listed as a contributing element within the district. Though the bridge is a contributing element to the district, the removal of this bridge and replacement with a viaduct would be a minor overall change to the look and feel of the district, and the replacement of one contributing element out of many does not threaten the integrity of the district as a whole. The adverse effect was also mitigated through the Roads PA by documenting the bridge to Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) standards.

The addition of a turning lane and pedestrian crosswalks to ease congestion and improve safety along this section of the East Entrance Road Historic District and Fishing Bridge Historic District will be compatible with the historic districts. Expansion of the existing parking lot to the east side of the Fishing Bridge Hamilton General Store will be screened by vegetation and compatible with the historic district. The Fishing Bridge Museum National Historic Landmark parking area will be repaved and crenulated stone curbing will be repaired and replaced in kind. Pedestrian walkways will be re-graded to allow for ADA accessibility in accordance with the Secretary of the Interior's Standards for Rehabilitation.

Fishing Bridge itself will be altered slightly; however, this alteration will lead to a longer expected use life for the bridge. The rehabilitation of Fishing Bridge in place will entail minor visual and structural changes to the bridge itself, while keeping its character intact and allowing it to maintain its integrity as a part of the historic district.

In summary, with regard to historic resources, with the exception of the removal of the Pelican Creek Bridge, all of the actions within and adjacent to historic properties are compatible with the historic districts, as well as Secretary of the Interior's Standards for Rehabilitation, and will, therefore, have no adverse effects on the East Entrance Road Historic District or Fishing Bridge Historic District.

Construction will impact 14.72 acres of roadside habitat that will be removed due to road widening. Construction activities will introduce noise and vibrations to the area. These activities tend to keep listed species from using sections of the East Entrance Road that are in close proximity to construction zones. None of the recent historical lynx detections were located near the project area and the proposed construction will be outside of Lynx Analysis Units and designated lynx critical habitat. No road-killed lynx have been reported either within or adjacent to the project area and no sign of snowshoe hares (their primary food source) have been detected in the proposed site. The project would have "no effect on Canada lynx or Canada lynx critical habitat". As of the writing of the FONSI, grizzly bears and gray wolves are no longer listed species.

## **CONCLUSION**

As described above, the selected alternative does not constitute an action meeting the criteria that normally requires preparation of an environmental impact statement (EIS). The selected alternative will not have a significant effect on the human environment in accordance with Section 102(2)(c) of NEPA.

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

# Appendix A

## MITIGATION MEASURES

The following mitigation measures were developed to minimize the degree and/or severity of adverse effects and would be implemented during construction of the action alternative, as needed:

### Soil

- To avoid introduction of exotic plant species, no hay bales will be used. The following materials may be used for erosion control dams: wood bark mulch, straw, sand bags, coir logs, and silt fences. Wood bark mulch will be used to reduce surface erosion, help retain soil moisture and promote seed generation of native plants. Standard erosion control measures such as silt fences and/or sand bags will be used to minimize soil erosion.
- Silt fencing will be placed around side-cast soil. Excavated soil may be used in the construction project; excess soil will be stored in approved areas.
- Construction will take advantage of previously disturbed areas wherever possible. Vegetation impacts and compaction and erosion of bare soils will be minimized by conserving topsoil in windrows and reapplying after construction. The use of conserved topsoil will help preserve micro-organisms and native plant seeds. The topsoil will be re-spread in as near as original location as possible. Native seeds and mulch will be used as necessary to aid in revegetation. Scarification of compacted soils will occur as necessary to improve revegetation.
- Staging and stockpiling areas will be in previously disturbed sites. All staging and stockpiling areas will be returned to re-construction conditions utilizing weed monitoring and control, and recountouring if necessary.

### Wetlands

- Wetland mitigation will consist of the removal of existing road fill (embankment) used for the present Pelican Creek causeway and construction of an elevated causeway. Temporary work platforms will be constructed as small as possible and will be located in wetlands for as little time as is necessary.

### Operations

- Contractors will coordinate with park staff to reduce disruption in normal park activities.
- Construction workers and supervisors will be informed about the special sensitivity of park values, regulations, and appropriate housekeeping.
- Sensitive resource areas will be identified and fenced with construction tape, snow fencing, or a similar material prior to any construction activity. Work limits will be defined with markers. Protection measures will be clearly stated in the construction specifications and workers will be instructed to avoid conducting activities beyond these areas as defined by the fencing or markers.



### **Air Quality**

- Fugitive dust generated by construction will be controlled by spraying water on the construction site as necessary.
- To reduce noise and emissions, construction equipment will not be permitted to idle for more than 10 minutes while not in use according to the Superintendent's Compendium, based on CFR 36 § - 5.13 Nuisances.

### **Noise**

- Work which generates significant noise will be conducted during the day if possible. The use of sound curtains may be employed to help reduce noise from pile driving activities.

### **Water Quality**

- The contractor will monitor and check construction equipment daily, or prior to each use, to identify and repair any leaks. Hazardous material spill kits will be required on site.
- Storage, refueling, construction parking, and staging areas will be at least 150 feet from streams or riparian areas. Fuel will be stored in fuel trucks or aboveground storage tanks, and all fuel storage will be in staging areas. Refueling will take place in staging areas with some exceptions for stationary equipment such as cranes. In those cases, fueling may take place within 150 feet of streams or riparian areas and will require a spill containment kit on site.
- Silt fences will be employed to improve quality of runoff and watershed quality. Berms and settling ponds will be used to minimize runoff.
- Equipment will not operate within the stream or river during fish spawning. Pumped water will be discharged to an upland site.
- Silt fencing fabric will be inspected weekly or after every major storm. Accumulated sediments will be removed when the fabric is estimated to be 50% full. Silt removal will not take place near wetlands, streams, or rivers.
- Filter barriers will be used to protect existing water sources and minimize turbidity and sedimentation during construction activities. A storm water pollution prevention plan and a water quality monitoring plan will be required and implemented. Turbidity curtains will be set up within and around any in-water work areas such as piers or abutment placements.
- A Section 404 Permit per the Clean Water Act will be obtained prior to construction.

### **Vegetation**

- Non-native vegetation will be monitored and treated for 3-5 years. Herbicides and mechanical removal will be used for treatment.
- Construction equipment will be cleaned and inspected before entering the park to minimize the transportation of exotic seeds to the site.

### **Revegetation**

- Revegetation and re-contouring of disturbed areas will take place following construction

- Revegetation efforts will reconstruct the natural spacing, abundance, and diversity of native plant species.

### **Wildlife**

- Construction workers and supervisors will be informed about special status species. Construction activities will cease if a special status species is discovered in the project area until a park wildlife specialist determines that is appropriated to proceed.
- All project-related employees will be given bear safety orientation. Orientation will include food storage, disposal of garbage and other bear attractants, avoiding encounters, minimizing encounters, and approaching or harassing wildlife.
- Per the Migratory Bird Treaty Act, no cutting of trees, vegetation clearing, grubbing, or construction activities which could affect nesting birds will occur between May 1st and July 31st unless qualified biologists from Yellowstone National Park survey the project area and determine nesting birds are not present.

### **Cultural Resource Protection**

- The NPS will ensure all contractors and subcontractors are aware of the penalties for illegally collecting artifacts or damaging archeological sites and historic properties. Contractors and subcontractors will be instructed on procedures in the event of an unanticipated discovery of archeological resources.
- Construction activity will cease if previously unknown historic or prehistoric cultural remains or artifacts are encountered and the procedures for unanticipated discoveries in the Roads PA would be followed.
- The park will continue to work with tribes to document and evaluate the ethnographic resources within the park.

### **Visitor Experience**


- Signs will be posted and press releases dispersed to inform visitors about construction and traffic delays.
- Speed limits through construction areas will be reduced and posted.
- Variations on construction timing will be considered to reduce impacts to visitors. One option is to conduct the majority of hauling during off-peak times of the day or during shoulder seasons. Another option is to implement daily construction activity curfews.

## Appendix B

### Statement of Findings (Wetlands)

#### STATEMENT OF FINDINGS FOR EXECUTIVE ORDER 11990 (PROTECTION OF WETLANDS)

Fishing Bridge to Indian Pond Road Reconstruction  
Yellowstone National Park

Recommended:  8/22/2017  
Superintendent, Yellowstone National Park Date

Certified for Technical Adequacy and Servicewide Consistency:

 8/28/2017  
Chief, WASO Water Resources Division Date

Approved:  9/8/17  
Regional Director, Intermountain Region Date

## STATEMENT OF FINDINGS

### INTRODUCTION

Yellowstone National Park (YNP) has prepared and made available an Environmental Assessment (EA) analyzing alternatives for reconstructing a segment of the East Entrance Road from Fishing Bridge to Indian Pond.

The purpose of this Statement of Findings document is to comply with NPS wetland protection and floodplain management procedures. Executive Orders (EO) 11988 (Floodplain Management) and 11990 (Protection of Wetlands) require the NPS and other federal agencies to evaluate the likely impacts of actions in floodplains and wetlands. NPS Director's Order #77-1: Wetland Protection and NPS Procedural Manual #77-1 provide NPS policies and procedures to comply with EO 11990. NPS Procedural Manual #77-2 provide procedures to comply with EO 11988. The Statement of Findings will be published with the Final EA.

### PROPOSED ACTION

The proposed project would reconstruct a 3.2 mile segment of the East Entrance Road from Fishing Bridge to Indian Pond within Yellowstone National Park. The project would include the road, associated parking areas and turnouts, Fishing Bridge, and Pelican Creek Bridge.

The project would reconstruct and widen the existing 22 to 24-foot paved road to a 30-foot paved width. Within the vicinity of Fishing Bridge Village, an eleven foot left turn lane would be constructed to accommodate access to the Village. Parking areas located at the east and west ends of the Pelican Creek viaduct would be reconstructed and formalized. Each parking area would accommodate approximately 20 vehicles and one parking area would install a vault toilet. The west parking area would connect into the trailhead leading to the mouth of Pelican Creek. The parking area at Storm Point Trailhead would be formalized to accommodate 20 vehicles and provide room for vehicles to back out of the parking space without entering traffic on East Entrance Road. A vault toilet would be installed at this location. Another parking area at Pelican Valley Trailhead would be relocated to the east to improve vehicle accessibility. The existing access road would be removed and the area restored.

Rehabilitation of Fishing Bridge would include three main elements; 1) rehabilitation of the timber deck and driving surface, 2) construction of a new abutment, and 3) installation of new Fiber Reinforced Polymer jackets on all timber piles. The current bridge is 532 feet long and would be rehabilitated in place. The existing bridge spans and bents would remain the same.

The existing piles would be rehabilitated in place. No temporary traffic bridge or work bridge would be constructed at Fishing Bridge.

The Pelican Creek Bridge would be replaced with the construction of an approximately 1,500 foot long viaduct on an adjacent alignment approximately 40 feet to the south of the existing Pelican Creek Bridge. The viaduct would span the existing floodplain and Pelican Creek. Existing bridge, piers, and abutments would be removed and approximately 1,300 linear feet of existing causeway would be removed restoring the floodplain. The viaduct would have nine spans, placed on approximately 16-24 large diameter steel pipe piles. Temporary structures would consist of eight platform structures placed adjacent to the existing causeway. Platforms would consist of geotextile blanket placed on the existing ground with sand and rip-rap on top. All temporary platforms would be removed at the completion of the project and the area restored.

The project would be constructed in 2018 and 2019 as one construction contract. Rehabilitation of the Fishing Bridge would be the first order of work. Construction of Pelican Creek Viaduct would require the most time to construct and dictate the duration of construction. Pelican Creek Bridge substructure would be constructed in 2018 with the superstructure constructed in 2019. The remainder of road improvements, parking areas and trailhead would be scheduled accordingly to be complete within the two-year construction period. The parking areas and turnouts along this road segment would be repaved on the existing footprint. The parking area adjacent to the east side of the Fishing Bridge General Store would be expanded and reconfigured to the east of its original location.

#### WETLAND DELINEATIONS

Wetlands along the 3.2 mile segment of the East Entrance Road from Fishing Bridge to Indian Pond were delineated during the field season of 2016 using the 1987 U.S. Army Corps of Engineers methods. A total of 33 wetlands (32.50 acres) were identified within 200 feet of either side of the Fishing Bridge to Indian Pond road segment. Each wetland was classified according to the Cowardin classification system.

Cowardin wetland systems present included: Palustrine and Riverine, with some variation in classes and water regime within the systems. Thirty-three Palustrine wetlands, totaling 26.30 acres consisted of seeps, snowmelt-fed wet meadows, slope wetlands, forested wetlands and riparian area wetlands.

Two Riverine wetlands, totaling 6.23 acres included the Yellowstone River and Pelican Creek as well as a few unnamed tributaries. Streams classified in the Riverine system were found to be both perennial and intermittent.

Species common in the Palustrine communities were water sedge (*Carex aquatalis*), tufted hairgrass (*Deschampsia cespitosa*), (Nebraska sedge) *Carex nebrascensis*, water ragwort (*Senecio hydrophilus*), bluejoint (*Calamagrostis Canadensis*), slender cinquefoil (*Potentilla gracilis*), and smallwing sedge (*Carex microptera*). No plants of special concern were found during a survey (Summer 2016) of the project area.

## FUNCTION ASSESSMENT

Streams and lakes in Yellowstone National Park are designated as Class I, Outstanding Natural Resource Waters, by the state of Wyoming. Class I waters are anti-degradation waters, which means that existing water quality must be maintained. Water bodies located within the project area include:

### *Yellowstone River*

The project area at Fishing Bridge is located in the Yellowstone River, the last major undammed river in the lower 48 states. The river begins northwestern Wyoming in the Bridger-Teton Wilderness and enters the park and meanders through the Thorofare region into Yellowstone Lake. It leaves the lake at Fishing Bridge and flows north over LeHardy Rapids, through Hayden Valley and north. It is considered the principal tributary of the upper Missouri. The mainstem of the Yellowstone River is more than 700 miles long. At the headwaters, elevations exceed 12,800 feet above sea level and descend to 1,850 feet at the confluence with the Missouri River in North Dakota. The substrate for the Yellowstone River is primarily composed of large and fine gravel.

### *Pelican Creek*

This major tributary enters Yellowstone Lake on its north shore and has approximately 190 miles of streams within its 78 square mile watershed. The substrate of Pelican Creek is primarily composed of silt, sand, and fine gravel. Base flow during the fall is approximately 33 ft<sup>3</sup>/second. During periods of high water Yellowstone Lake backs up into Pelican Creek and elevates creek levels at the bridge. Because the lake level fluctuates only a few feet, there has never been a hazardous flood at the bridge. Many thermal features can be found in the upper reaches of Pelican Creek drainage which greatly affects water chemistry. The three prevalent groups of ions detected in this drainage include sulfates, bicarbonates, and sodium.

Both the Yellowstone River and Pelican Creek contain five fish species: Yellowstone cutthroat trout (*Oncorhynchus clarkii*), lake chub (*Couesius plumbeus*), longnose dace (*Rhinichthys cataractae*), redbelt shiner (*Richardsonius balteatus*), and longnose sucker (*Catostomus catostomus*). The Yellowstone River is an important spawning stream for Yellowstone cutthroat trout. Pelican Creek use to be an important spawning stream for Yellowstone cutthroat trout

but the number of fish spawning in the creek has declined substantially in the past two decades, possibly a result of drought and whirling disease.

Three amphibian species: blotched tiger salamander (*Ambystoma tigrinum melanostictum*), western (Boreal) chorus frog (*Pseudacris maculata*), Columbia spotted frog (*Rana luteiventris*), and one reptile species, the western terrestrial garter snake (*Thamnophis elegans vagrans*) are known to occur in the project area.

The Fisheries and Aquatic Sciences Branch staff collected aquatic invertebrate information from Pelican Creek in October 2003 and 2004. Benthic macroinvertebrates are excellent indicators of water quality conditions because they are sensitive to environmental changes. During these years, invertebrate taxa belonging to Trichoptera, Coleoptera, and Diptera which are commonly called caddisflies, beetles, and true flies respectively (Arnold, Pers.Comm).

The Palustrine wetlands impacted by this project are beneficial in serving the following functions: they temporarily store surface water and are sources of water vital for streamflow maintenance; the marshes provide habitat for waterfowl and waterbirds; they perform nutrient transformation; sediment and other particulate retention; help in shoreline stabilization and retention; provide habitat for fish, waterfowl and waterbirds, and other wildlife. Most of these functions would be enhanced by the restoration of wetland acreage due to the removal of the Pelican Creek causeway.

#### WETLAND AND FLOODPLAIN IMPACTS

Under the preferred alternative, 1.73 acres of wetlands and floodplains would be impacted, 0.40 permanent and 1.33 temporary (Figures 1-3). It should be noted that the estimates of impacts are “worst case” based upon construction designs that are 50% complete. Actual impacts may be less as the construction designs are refined and finalized.

1.33 acres of temporary wetland impacts would occur due to construction of platforms for equipment needed to set the girders and drill the piers needed for the Pelican Creek viaduct. Permanent wetland impacts of 0.40 acres would result from placement of piers for the viaduct, and expansion of the roadway. Construction of the Pelican Creek viaduct from placement of piers and abutments would be new permanent features within the 100-year floodplain. The new viaduct span would be sufficiently long to drastically reduce 100-year floodplain impacts, and in-water work would be completed during low flow periods.

1.88 acres of floodplains and wetlands would be restored as compensatory mitigation as a result of removing road fill that is presently located within the lower Pelican Creek drainage system. Estimates of compensatory mitigation may prove to be similarly conservative, but under no circumstances would mitigation be less than 1.725 acres.

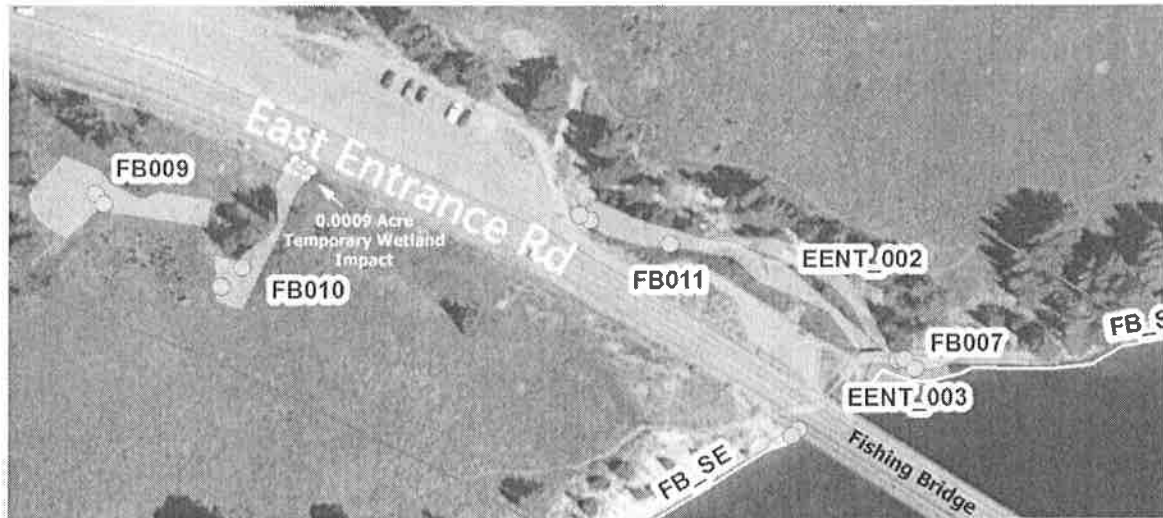


Figure 1 - Wetland Impacts Near Fishing Bridge

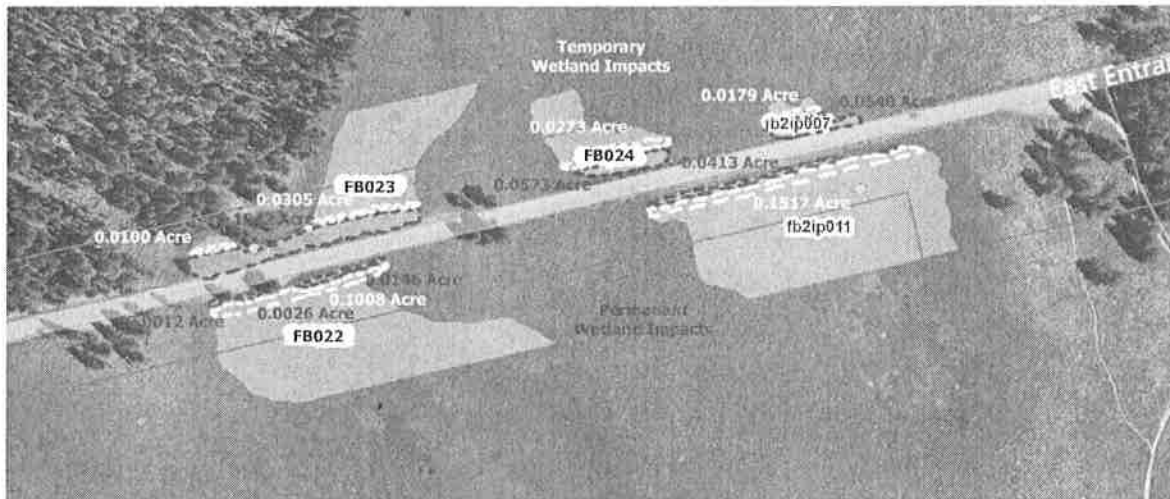


Figure 2- Wetland Impacts Near Indian Pond



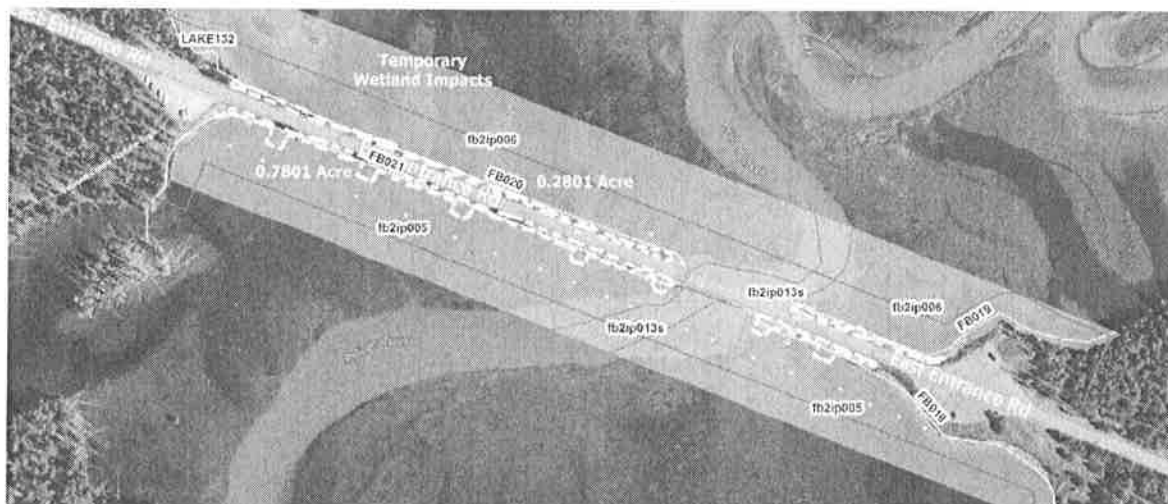


Figure 3- Wetland Impacts Near Pelican Creek

### WHY ACTIONS MUST BE LOCATED IN THE WETLAND

The purpose of the proposed project is to preserve the existing vehicle access route from Fishing Bridge to the East Entrance by reconstructing the road to meet engineering safety standards while ensuring park resources. This segment of road is in an advanced state of deterioration, primarily due to age. The pavement is rutted from wear and cracking because of poor drainage, poor-quality base material, and heavy vehicle use. The road was not designed or constructed to accommodate current traffic volumes, vehicle widths, lengths, and weights. The current width of the road varies from 19 to 22 feet. The 30-foot paved reconstructed road would be based upon the National Park Service road standards.

Both of the bridges are listed as a Priority of Improvement Category B which means the structure is seriously deficient or presents a safety hazard, but can remain in service at reduced loads or with frequent inspection. If the bridges would remain as is, maintenance such as patching, rail and deck repairs would continue. Deterioration of the structural elements would continue until safety concerns would eventually cause restrictions or closure of the bridges.

### OTHER ALTERNATIVES CONSIDERED

#### Alternative A: No Action

Under Alternative A the current alignment would remain unchanged. The road width would remain at its existing 22-24 feet in width. The road would likely need increasing amounts of maintenance to the road surface in the future as the road condition declines. Safety issues such

as steep drops at pavement edge, vehicles stopping in road to view wildlife, and narrow road surface would not be addressed.

Fishing Bridge and Pelican Creek Bridge would not be reconstructed or rehabilitated. Issues related to the aging of the existing bridges would not be addressed. The NPS would continue to complete periodic minor repairs for continued operation of the bridges such as patching, rail maintenance, and repair of the deck. Deterioration of the structural elements would continue until safety concerns eventually cause restriction or closure of the bridges.

#### Alternative C: Reconstruct and Rehabilitate a Portion of the East Entrance Road and Replace Fishing Bridge in its Current Location

Alternative C would consist of the same actions described for the proposed action with the exception of Fishing Bridge. This alternative would replace the existing Fishing Bridge wood structure in its current location. The bridge would have two eleven-foot wide travel lanes, three-foot side shoulders, and up to seven-foot wide sidewalks on each side of the bridge. The current bridge is 532 feet long; the new one would be approximately 560 feet. The bridge would have approximately ten spans and nine bents. Each bent would have approximately six piles for a total of 60 piles and would be 24-inch diameter steel pile filled with concrete and driven into the river bottom.

Temporary bridge structures would be placed on both sides of the existing Fishing Bridge. Each structure would have piles driven into the streambed of the Yellowstone River. Road approaches to the temporary bridge structures would require temporary impacts to the adjacent wetlands.

This alternative was not selected because it would not retain the historic character of Fishing Bridge and temporary impacts to wetlands (1.43 acres) would be greater than the proposed action.

#### Alternative D: Reconstruct and Rehabilitate a Portion of the East Entrance Road and Replace Fishing Bridge in a New Location

Alternative D would consist of the same actions described for the proposed action with the exception of Fishing Bridge. This alternative would replace Fishing Bridge structure in a new location. The bridge would have two eleven-foot wide travel lanes, three-foot side shoulders, and up to seven-foot wide sidewalks on each side of the bridge. The current bridge is 532 feet long; the new one would be approximately 840 feet. The bridge would have approximately 15 spans and 14 bents. Each bent would have approximately six piles for a total of 84 piles and would be 24-inch diameter steel pile filled with concrete. Piles would be driven into the river bottom. A temporary construction work platform to construct the new bridge would be 30 feet

wide and 750 feet long and be located 45 feet south of the new bridge. Road approaches to the platform would require temporary impacts to the adjacent wetlands.

This alternative was not selected because it would not retain the historic character of Fishing Bridge and permanent impacts to wetlands (1.59 acres) would be the greatest out of all the action alternatives.

#### ALTERNATIVES CONSIDERED BUT DISMISSED

##### Reconstruct the Pelican Creek Bridge at its Present Location and Length

This alternative was considered to maintain the existing condition and reduce overall cost. This alternative did not recognize the decision made in the 1992 East Entrance Road Reconstruction EA to remove this severely deteriorated bridge, remove the existing road fill from wetland, and construct a viaduct over the Pelican Creek Wetland. As a decision has already been made to construct a viaduct and this alternative would not restore wetland functions impacted by existing road fill, this alternative was dismissed because it only partially meets the purpose and need for the project and the project objectives.

##### Reconstruct the Road at a 24-foot Width

This alternative consisted of reconstructing the road to a 24 foot width as was done on the Dunraven Road. As with the above listed alternative, this alternative did not fully meet an objective to improve traffic flow. The narrower road width would not allow traffic to flow when both lanes stop to view wildlife in the absence of turnouts along the roadway. The majority of the East Entrance Road has already been reconstructed to a 30-foot paved width, and to be consistent with that width the alternative was eliminated for feasibility reasons and because the alternative would not meet the project's objectives.

#### MITIGATIVE ACTIONS

All wetlands within the project area were surveyed and mapped before road design began so the designer could reduce impacts to wetlands.

To minimize possible petrochemical leaks from construction equipment, the contractor will regularly monitor and check construction equipment to identify and repair any leaks.

Hazardous material spill kits will be required on site.

Equipment will not be serviced or refueled near streams; storage and refueling or construction parking and staging areas, will be at least 46 meters (150 feet) from streams or riparian areas. Fuel will be stored in fuel trucks or aboveground storage tanks, and all fuel storage will be in staging areas. If refueling needs to occur for stationary equipment (cranes, trackhoes, pumps),

within 150 feet of streams and riparian areas, special precautions will be put in place to alleviate the risk of fuel spills.

Stormwater runoff control measures, including silt capture techniques such as silt fences will be employed to improve quality of runoff and prevent degradation of the water bodies.

Design and construction measures will include development of surface water control features to minimize post-construction run-off.

Sediment curtains will be used when needed to contain sediment to the immediate work zone.

Silt fencing fabric will be inspected weekly or after every major storm. Accumulated sediments will be removed when the fabric is estimated to be approximately 50% full. Silt removal will be accomplished in such a way as to avoid introduction of fine particle materials into any wetlands or flowing water bodies.

Wooden pallets will be placed over wetland areas wherever heavy equipment will be driven. This will result in some soil compaction, crushing of vegetation, and prevent rutting in the soft soils. Any disturbed wetland soils will be graded by hand to original grade elevations and replanted with appropriate native-wetland species.

#### PROPOSED COMPENSATION

Compensation mitigation for 1.73 acres of impacted wetlands will be accomplished through removing 1.88 acres of road fill that is presently located within the lower Pelican Creek drainage system (Figure 4). By removing road fill in former wetlands and the existing Pelican Creek Bridge and replacing it with a 1,500-foot long viaduct on an adjacent alignment approximately 40 feet to the south of the existing Pelican Creek Bridge. The viaduct would span the existing wetland and Pelican Creek. By removing the existing bridge, piers, and abutments, approximately 1,300 linear feet of causeway would be removed and 1.88 acres of floodplain and wetland functions restored.

The compensation ratio is therefore 1.1 to 1 or 1.88 acres restored: 1.73 acres impacted.

The Western Federal Lands Highway Division of the Federal Highway Administration, in cooperation with Yellowstone National Park will submit an application for an U.S. Army Corps of Engineers (USACOE) 404 Authorization for reconstructing a 3.2 mile segment of the East Entrance Road from Fishing Bridge to Indian Pond. The NPS has determined the project would impact 1.73 acres of wetlands at eight locations.

Mitigation would occur from the restoration of 1.88 acres of floodplain and wetlands from removal of the existing Pelican Creek Bridge and causeway.



- b) Plan view map showing wetland mitigation site and indicating areas where wetlands are developing as well as identification of type. Acreage of each wetland/water type based upon the Cowardin classification (palustrine emergent, aquatic bed, unconsolidated bed, scrub-shrub) will be specified in tabular form and correlated to the plan view drawing. Additional clarification of wetland type should be included for the emergent class, if warranted, such as meadow, shallow marsh, and deep marsh.
  - c) Comparison of monitoring results with the approved mitigation plan. Data collection and analysis must be accomplished by a qualified individual proficient in wetland delineation and functional assessment techniques with conclusions discussed in each report.
  - d) Photographs of each reclaimed wetland and/or open water area from established locations taken during the growing season.
  - e) Mitigation success is achieved when the mitigation site has more than 60% gross vegetative aerial coverage as determined by the average of all quadrat sample plot data. Hydrophytes must comprise a minimum of 80% of the dominant species as determined from the average of all data points from the polygons. All wetland data points must be comprised of more than 50% hydrophytes, which are native species.
1. Vegetation. Annual samples will be gathered using transect quadrant sampling, point intercept sampling, photos, and visual inspection. Based on field inspections, estimates will be made to determine the percentage of the area covered by hydrophytes, which will be compared to the existing condition baseline data. A determination will be made as to the need for a weed control plan.
  2. Hydrology. Groundwater levels shall be determined annually by the use of groundwater monitoring wells or excavation of test pits. Areas to be flooded, even intermittently, shall be measured by the use of gages. Site visits shall be done once during the projected peak of the hydrograph and/or seasonal high groundwater and once during the low water elevation periods.
  3. Soils. The compensation consists of restoration of wetlands that were filled during construction of the road. Excavation of fill to at-or-below original grade will expose former wetland soils. It is expected that those soils will still retain some of the redoximorphic features that were formed before the wetlands were filled. Presence of redoximorphic features, therefore, will not be a reliable indicator that mitigation is successful, and soils will not be monitored beyond the initial survey to ensure that the entire fill has been removed.

The NPS would provide annual reports following the completion of the mitigation sites documenting the finding of items # 1-4 from the sampling performed. In these reports, the NPS would identify:

- 1 Success criteria and how the compensation sites compare to those criteria.
2. A comparison of the sizes of the proposed and actual compensation areas to project impact areas.

3. Classification of compensation areas based on type (Cowardin classification).
4. Interpretation of data collected in items #1 and 2 and discussion as to how compensation is determined to be demonstrating success or failure.
5. Identification of problems that have arisen and corrective measures that have been implemented or proposed.
6. Routine wetland delineation data forms or similar forms, which contain appropriate data fields.
7. Plan view map(s).
8. Color photos of compensation sites from permanently established locations.
9. A contingency plan should the compensation plans and implementations prove unsuccessful.

### CONCLUSION

Although 1.73 acres of wetlands will be impacted, this represents the minimum possible disturbance to carry out the NPS's responsibility for providing adequate and safe access within Yellowstone National Park. In accordance with the NPS no net loss of wetlands policy, impacted wetlands will be replaced with comparable wetland habitats via restoration of previously disturbed wetlands. A total of 1.88 acres of impacted wetlands will be restored to compensate for the impact to 1.73 acres of wetlands. This exceeds the minimum 1:1 no net loss ratio. We therefore find this project to be consistent with NPS procedures for complying with Executive Order 11990.

## References

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<http://wetlands.fws.gov/bha/download/1996/national.pdf>

Wetland SOF Appendix 1 - Fishing Bridge to Indian Pond Wetland Impacts

**Wetlands Impact Areas (acre)**

<b>Wetland ID#</b>	<b>NWI Code</b>	<b>Temporary</b>	<b>Permanent</b>
FB010	PEM	0.0009	
FB020	PEM	0.2081	
FB021	PEM	0.7801	0.0326
fb2ip013s	R2	0.0179	0.0540
FB022	PEM	0.1008	0.0184
FB023	PEM	0.0405	0.1942
FB024	PEM	0.0273	0.0573
fb2ip011	PEM	0.1517	0.0413
<b>TOTALS</b>		<b>1.3273</b>	<b>0.3978</b>

## Wetland SOF APPENDIX 2. Plant Names and Wetland Indicator Status.

A list of plants found in wetlands within the project area for Fishing Bridge to Indian Pond. Nomenclature follows that used by Reed (1996), Dorn (1992), and Hitchcock and Cronquist (1973).

Wetland Indicator Status categories are defined as follows (Environmental Laboratory, 1987, and Reed, 1996):

OBL = OBLIGATE WETLAND PLANT: Occurs almost always (probability > 99%) in wetlands.

FACW = FACULTATIVE WETLAND PLANT: Usually occurs in wetlands (probability 67% - 99%).

FAC = FACULTATIVE PLANT: Has a similar probability (probability 33% - 67%) of occurring in both wetlands and non-wetlands.

FACU = FACULTATIVE UPLAND PLANT: One that occurs less often in a wetland as compared to a non-wetland (1% - 33% probability of occurring in a wetland).

Stratum	Scientific Name	Common Name	Wetland Indicator Value
Tree	<i>Pinus contorta</i>	Lodgepole Pine	FAC
Herb	<i>Achillea millefolium</i>	Common Yarrow	FACU
	<i>Agrostis exarata</i>	Spike Bentgrass	FACW
	<i>Agrostis scabra</i>	Rough Bentgrass	FAC
	<i>Alopecurus aequalis</i>	Foxtail	OBL
	<i>Aster sp.</i>	Aster	--
	<i>Calamagrostis canadensis</i>	Blue-joint Reedgrass	FACW+
	<i>Cardamine breweri</i>	Brewer's Bittercress	FACW+
	<i>Camassia quamash</i>	Small Camass	FACW
	<i>Carex raynoldsii</i>	Raynold's Sedge	FACU
	<i>Carex pellita</i>	Wooly Sedge	OBL
	<i>Carex praegracilis</i>	Clustered Field Sedge	FACW

Stratum	Scientific Name	Common Name	Wetland Indicator Value
	<i>Carex praticola</i>	Meadow Sedge	FACW
	<i>Chamerion angustifolium</i>	Fireweed	FACU+
	<i>Collinsia parviflora</i>	Blue-eyed Mary	NI
	<i>Collomia linearis</i>	Narrow-Leaved Collomia	FACU
	<i>Deschampsia cespitosa</i>	Tufted Hairgrass	FACW
	<i>Eleocharis flavescens var. thermalis</i>	Yellow Spikerush	OBL
	<i>Eleocharis palustris</i>	Creeping Spikerush	OBL
	<i>Epilobium ciliatum</i>	Hairy Willowherb	FACW-
	<i>Equisetum arvense</i>	Field Horsetail	FAC
	<i>Festuca idahoensis</i>	Idaho Fescue	FACU
	<i>Fragaria vesca</i>	Wood Strawberry	NI
	<i>Galium boreale</i>	Northern Bedstraw	FACU
	<i>Geum macrophyllum</i>	Large-Leaf Avena	FACW-
	<i>Hierochloe odorata</i>	Sweetgrass	FACW+
	<i>Hordeum brachyantherum</i>	Meadow Barley	FACW-
	<i>Juncus tenuis</i>	Rush	FACW-
	<i>Luzula multiflora</i>	Common Woodrush	FACU
	<i>Maianthemum stellatum</i>	Starry False Lily of the Valley	FAC-
	<i>Mentha arvensis</i>	Field Mint	FACW-
	<i>Mertensia ciliata</i>	Streamside Bluebells	FACW+
	<i>Mimulus guttatus</i>	Common Monkey Flower	OBL

Stratum	Scientific Name	Common Name	Wetland Indicator Value
	<i>Perideridia montana</i>	Montana Yampah	FAC
	<i>Phleum alpinum</i>	Alpine Timothy	FACW-
	<i>Phleum pretense</i>	Timothy Grass	FAC-
	<i>Poa palustris</i>	Fowl Bluegrass	FAC
	<i>Poa pratensis</i>	Kentucky Bluegrass	FAC
	<i>Polygonum bistortoides</i>	American Bistort	FACW
	<i>Potentilla concinna</i>	Elegant Cinquefoil	--
	<i>Potentilla diversifolia</i>	Varileaf Cinquefoil	FACU
	<i>Potentilla gracilis</i>	Northwest Cinquefoil	FAC
	<i>Ranunculus sp.</i>	Buttercup	--
	<i>Rorippa palustris</i>	Bog Yellowcress	OBL
	<i>Senecio hydrophilus</i>	Water Ragwort	OBL
	<i>Senecio sphaerocephalus</i>	Ball-Hard Groundsel	FACW
	<i>Sparganium angustifolium</i>	Narrowleaf Bur-Reed	--
	<i>Stellaria longifolia</i>	Stitchwort	FACW
	<i>Taraxacum officinale</i>	Common Dandelion	FACU
	<i>Trifolium hybridum</i>	Alsike Clover	FAC
	<i>Trifolium pratense</i>	Red Clover	FACU
	<i>Veronica americana</i>	American Speedwell	OBL
	<i>Viola sp.</i>	Violet	--
	<i>Viola adunca</i>	Hookedspur Violet	FAC

## TEXT CHANGE ERRATA

The following text changes have been made to the EA to correct or clarify statements in the EA.

**Page 27 of EA (Closures and/or Delays for Public Access):** “A complete road closure late in the season (after Labor Day) could be required. All efforts would be made to reduce these closures as much as possible and to alert the public and park staff as soon as possible if delays longer than normal are expected.”

**Change to:** “A complete road closure late in the season (October 15, 2018, through November 5, 2018) would occur if needed to accomplish the work.

Due to a mathematical error in compiling the “Wetland Areas Impact” table in the Statement of Findings for Wetlands, the following changes are made to the text of the Environmental Assessment.

**Page 53 of EA (Paragraph 3):** “0.78 acres of wetlands would be impacted by construction of temporary work platforms...”

**Change to:** 1.33 acres of wetlands would be impacted by construction of temporary work platforms...”

**Page 53 of EA (Paragraph 3):** “...would result in the permanent loss of 0.66 acres of wetland, 0.78 acres temporary wetland impacts, and 1.88 acres of palustrine wetlands restored.

**Change to:** “...would result in the permanent loss of 0.40 acres of wetland, 1.33 acres temporary wetland impacts, and 1.88 acres of palustrine wetlands restored.

**Page 53 of EA (Paragraph 3):** Delete last sentence that states “During the time of construction, and before the causeway is removed, an additional 0.78 acres of palustrine wetland would be impacted further reducing wetland functions such as those listed in the above paragraph.”

**Page 54 of EA (Paragraph 1) Impacts of Alternative C:** “...on approximately 1.43 acres of wetland located on the ...”

**Change to:** “...on approximately 1.41 acres of wetland located on the...”

**Page 54 of EA (Paragraph 2) Impacts of Alternative C:** “...Alternative C results in a total of 1.43 acres of temporary adverse impacts, ...”

**Change to:** “...Alternative C results in a total of 1.41 acres of temporary adverse impacts, ...”

**Page 55 of EA (Paragraph 2) Impacts of Alternative D, Cumulative Effects:** “...Alternative D results in 1.09 acre of permanent impacts to wetlands, and 0.73 acre of temporary impacts. “

**Change to:** “...Alternative D results in 1.14 acres of permanent impacts to wetlands, and 0.71 acre of temporary impacts. “

**Page 86, of EA, Statement of Findings, Wetland and Floodplain Impacts (Paragraph 1):**

“Under the preferred alternative 1.69 acres of wetlands and floodplains would be impacted, 0.35 permanent and 1.34 temporary...”

**Change to:** “Under the preferred alternative 1.73 acres of wetlands and floodplains would be impacted, 0.40 permanent and 1.33 temporary...”

**Page 86, of EA, Statement of Findings, Wetland and Floodplain Impacts (Paragraph 2):**

“1.34 acres of temporary wetland impact would occur...”

**Change to:** “1.33 acres of temporary wetland impact would occur...”

**Page 86, of EA, Statement of Findings, Wetland and Floodplain Impacts (Paragraph 3):**

“...but under no circumstances would mitigation be less than 1.679 acres.”

**Change to:** “...but under no circumstances would mitigation be less than 1.725 acres.”

**Page 88, of EA, Statement of Findings, Alternative C... (Paragraph 3):**

“...temporary impacts to wetlands (1.43 acres) would be greater than the propose action.”

**Change to:** “...temporary impacts to wetlands (1.41 acres) would be greater than the proposed action.”

**Page 89, of EA, Statement of Findings, Alternative C... (Paragraph 3):** “...permanent impact so wetlands (1.59 acres) would be the greatest out of all the action alternatives.”

**Change to:** “...permanent impact so wetlands (1.64 acres) would be the greatest out of all the action alternatives.”

**Page 90, of EA, Statement of Findings, Proposed Compensation (Paragraph 1):**

“Compensation mitigation for 1.69 acres of impacted wetlands will be accomplished through...”

**Change to:** “Compensation mitigation for 1.73 acres of impacted wetlands will be accomplished through...”

**Page 90, of EA, Statement of Findings, Proposed Compensation (Paragraph 2):** “The compensation ratio is therefore 1.1 to 1 or 1.88 acres restored; 1.69 acres impacted.”

**Change to:** “The compensation ratio is therefore 1.1 to 1 or 1.88 acres restored; 1.73 acres impacted.”

**Page 90, of EA, Statement of Findings, Proposed Compensation (Paragraph 3):** “...and determined the project would impact 1.69 acres of wetlands at eight locations.”

**Change to:** “...and determined the project would impact 1.73 acres of wetlands at eight locations.”

**Page 90, of EA, Statement of Findings, Conclusion:** “Although 1.69 acres of wetlands will be impacted...”

**Change to:** “Although 1.73 acres of wetlands will be impacted...”

**Page 94 of EA “Wetland Areas Impact” of the Statement of Findings for Wetlands:** correct the table from:

<u>Wetland ID#</u>	<u>NWI Code</u>	<u>Temporary</u>	<u>Permanent</u>
FB021	PEM	0.8001	0.0326
Fb2ip013s	R2	0.0179	0.0054
Totals		1.347	0.3492

**Change to:**

<u>Wetland ID#</u>	<u>NWI Code</u>	<u>Temporary</u>	<u>Permanent</u>
FB021	PEM	0.7801	0.0326
Fb2ip013s	R2	0.0179	0.0540
Totals		1.3273	0.3978



## RESPONSE TO PUBLIC COMMENTS ERRATA

This EA was released for public review from April 25, 2017 to May 26, 2017. The EA was made available in hard copy and digital format. A press release was distributed to approximately 200 media outlets, numerous local chambers of commerce, local visitor centers, public officials, social media, the park's website, regulatory agencies, and affiliated Native American tribes. Copies of the document were posted on the NPS PEPC website at <http://parkplanning.nps.gov/FBIP>. A total of 99 pieces of correspondence were received that included 92 substantive comments. Substantive comments were condensed into five themes and a response to each theme is provided below.

### **Comment 1 – Avoid full road closures**

**Response to Comment 1** – Road closures will be necessary to accomplish this project, but will be minimized to the extent possible. The bridge abutment on the west side of the Fishing Bridge will need to be reconstructed. As no temporary traffic bridge will be installed as part of this alternative a full closure will need to occur to allow that work to be performed before winter. A full closure is scheduled for October 15, 2018 through the end of the season (November 5, 2018). This is more specific than what is stated in the EA on page 27 where it states that a complete road closure late in the season (after Labor Day) could be required; therefore, the EA text was revised in the Text Change Errata as noted above.

### **Comment 2 – Consider installing more culverts for amphibian passage**

**Response to Comment 2** – No existing roadway culverts are being removed as part of this project. This project will remove approximately 1,300 linear feet of causeway that will be replaced with a viaduct. This will restore approximately 1.88 acres of wetland, and restore wetland functions to these acres. Connectivity of the wetland will be restored for water and animal movements from the causeway removal. Amphibian movements through this area are anticipated to improve due to these changes.

**Comment 3 – Road closures or delays will negatively impact Cody's economy; suggest a temporary bridge to run traffic.**

**Response to Comment 3** – Reconstruction of this road segment and the two bridges located within it will require 30-minute road delays. A late season full road closure is scheduled for October 15, 2018, through November 5, 2018. A temporary bridge to run traffic on was not part of the selected action because it would increase resource impacts to wetlands, topography, cultural resources, and adds to cost. The late-season road closure is shorter and later in the season than what was described in the EA to address concerns from the public; therefore, the EA text was revised in the Text Change Errata as noted above.

**Comment 4 – If a full road closure is needed, wait until October.**

**Response to Comment 4** – A full road closure is needed to replace the western bridge abutment for the Fishing Bridge rehabilitation. This closure is scheduled for October 15, 2018 through November 5, 2018.

**Comment 5** – Request that a socio-economic study be completed to determine the impacts of any road closures or delays.

**Response to Comment 5** – *The NPS has used economic data compiled by the Wyoming Department of Revenue for 2014-2016 for Park County, WY. This data shows four distinct high revenue months during each year: July, August, September, and October. Data collected for “traveler accommodations” does not show how many of those travelers that used Park County accommodations actually entered or exited the park’s east entrance during those months. Daily traffic counts through the East Entrance Gate of the park show that daily traffic decreases significantly through September and October, though traffic does continue through the end of the season at the first of November.*

*A two-week road closure during the last half of October 2018 will have some socioeconomic impact on Park County and Cody, Wyoming, although that impact will be small relative to the total number of visitors who enter and/or exit the East Entrance. For example, in 2016 visits through the East Entrance of the park for the period of October 15 through November 7<sup>th</sup> (when the East Entrance closed) were 4,081. This constitutes about 2% of the 194,848 vehicle entrances for the entire 2016 season through the East Entrance and reflects the anticipated 2018 levels when the closure will occur. A road closure at the very end of the summer season when visitation is at its lowest, will keep economic losses to a minimum and allow repairs that cannot be completed with the road open to traffic. This impact will be, in part, mitigated by the increase of construction workers employed during the construction period for the project, although this impact and the extent of mitigation are difficult to quantify*

# NON-IMPAIRMENT DETERMINATION

## Fishing Bridge to Indian Pond Road Reconstruction

By enacting the NPS Organic Act of 1916 (Organic Act), Congress directed the U.S. Department of the Interior and the National Park Service (NPS) to manage units "to conserve the scenery, natural and historic objects, and wild life in the System units and to provide for the enjoyment of the scenery, natural and historic objects, and wild life in such manner and by such means as will leave them unimpaired for the enjoyment of future generations" (54 U.S.C. 100101). NPS *Management Policies 2006*, Section 1.4.4, explains the prohibition on impairment of park resources and values:

"While Congress has given the Service the 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 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."

An action constitutes impairment when its impacts "harm the integrity of park resources or values, including the opportunities that otherwise will be present for the enjoyment of those resources or values" (NPS 2006, Section 1.4.5). To determine impairment, the NPS must evaluate the particular resources and values that will be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts. An impact on any park resource or value may constitute impairment, but an impact would be more likely to constitute an 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;
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- identified in the park's general management plan or other relevant NPS planning documents as being of significance (NPS 2006, Section 1.4.5).

Fundamental resources and values for Yellowstone National Park are identified in the enabling legislation for the park, the Foundation for Planning and Management Statement, and the Long Range Interpretive Plan. Based on a review of these documents, the fundamental resources and values for Yellowstone National Park come from the park's geologic wonders, the abundant and diverse wildlife, the 11,000-year-old continuum of human history, and providing for the benefit, enjoyment, education, and inspiration of this and future generations. Resources that were carried forward for detailed analysis in the EA and are considered necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, are key to the natural or cultural integrity of the park, and/or are identified as a goal in relevant NPS planning documents include: soils, vegetation, wetlands, cultural resources, and threatened and endangered species. Accordingly, a non-impairment determination is made for each of these

resources. Non-impairment determinations are not necessary for human health and safety or visitor use and experience because impairment findings relate back to park resources and values, and these impact topics are not generally considered park resources or values according to the Organic Act.

This non-impairment determination has been prepared for the selected alternative, as described in the Finding of No Significant Impact for the Yellowstone National Park Fishing Bridge to Indian Pond Road Reconstruction EA.

## **Soils**

Soils located along the East Entrance Road and along Yellowstone Lake are poorly developed and generally consist of silty sand intermixed with glacial till. The soils east of the lake are generally thin and loamy, and derived from glacial till.

Construction of the selected action would adversely affect soils in the project area as a result of work to widen roads, improve and upgrade parking and roadside pullouts, and replace and rehabilitate bridges. A maximum of 250,000 tons of material (soils, gravel, asphalt) would be moved as part of this project. The vast majority of this will be the result of removing the Pelican Creek causeway; additional materials will be moved to replace poor-draining road base. Permanent disturbance will result in 14.72 acres of soil area to be lost due to compaction, grading, or being paved over. The impacts to soils will be kept to the construction limit boundaries. Staging/stockpile/disposal areas will impact 9.76 acres of ground for a period of 2-3 years due to compaction and scarification of soils from construction equipment. A 1.32 acre site of an old borrow pit located in the relict Pelican Creek Campground would be reclaimed after filling the area with material removed from the Pelican Creek causeway. The area would be graded and revegetated to blend with the contours of the natural landscape surrounding it.

Best management practices will include using water trucks to wet the construction area with water to minimize dust. Erosion control efforts will keep potential effects of soil erosion in check with the use of silt fence, berms, and temporary settlement depressions as needed.

The selected alternative will not adversely alter the natural soil systems within the park given the prescribed mitigations and the fact that the park is 2.2 million acres in size, of which approximately 98% is completely undisturbed. As a result, the NPS has determined that the selected alternative will not result in an impairment of soil resources or functions.

## **Vegetation**

Vegetation impacts will result from trampling by construction workers within the construction limits, and permanent vegetation loss from building a wider road. The selected action will result in permanent vegetation loss of approximately 14.72 acres. The loss of native vegetation will not affect the viability of local plant populations. Impacts to vegetation will be kept to the construction limit boundaries.

Staging/stockpiling/disposal areas will cause the potential for vegetation to be adversely affected for 2-3 years on 9.76 acres. While the selected alternative will adversely alter the natural vegetation along the East Entrance Road for a distance of about 3.2 miles, the loss of 14.72 acres of vegetation from this project will not change plant diversity in this portion of the park. Revegetation and reuse of topsoil allows local plant species to reestablish quickly. As a

result, the NPS has determined that the selected alternative will not result in an impairment of vegetation resources.

## **Wetlands**

The project area contains two wetland systems, palustrine and riverine, with some variation in classes and water regime within the systems. The palustrine systems consist of seeps, snowmelt-fed wet meadows, slope wetlands, forested wetlands, and riparian area wetlands. Streams classified in the riverine system were found to be both perennial and intermittent. Wetland boundaries in the project area are shown in the Wetland Statement of Findings, attached to this document as Appendix B.

Under the selected alternative, at most, 1.73 acres of palustrine wetlands will be impacted, 0.40 permanent and 1.33 temporary. Temporarily impacted wetlands will be restored following construction, and wetland vegetation and functions will return to normal soon thereafter.

About 1.88 acres of wetlands will be restored as compensatory mitigation as a result of removing road fill that is presently located within the lower Pelican Creek drainage system. Estimates of compensatory mitigation may prove to be similarly conservative, but under no circumstances will mitigation be less than 1.725 acres.

All construction activities near wetlands will be confined to the smallest area necessary to complete the work, and all temporarily disturbed wetland areas will be restored with native wetland vegetation following construction. The lower Pelican Creek drainage contains approximately 400 acres of wetlands. Thus, the permanent loss of 0.40 acre of existing wetlands will be minor at both the local and watershed scale and neither this permanent loss nor the temporary impacts will impair park wetlands.

## **Cultural Resources**

Archaeologically significant sites and portions of sites will be avoided during construction, thus the National Register eligibility status of the sites will not be affected. Data recovery plans will be put in place for any unanticipated discoveries. Archaeological monitoring will take place in areas surrounding the National Register of Historic Places (NRHP) eligible portions of 48YE001. Installation of a formalized pullout in the 48YE001 site will be limited to the non-eligible portion of the site. A staging area will be located near 48YE549; however, that staging area is designated for water pumping from the Yellowstone River, and impacts to the site will be eliminated by requiring vehicles to remain on the currently graveled road adjacent to the site.

The widening of the East Entrance Road Historic District road and the associated rehabilitation/reconstruction of culverts, headwalls, retaining walls, and curbing will be done in accordance with the park road standard established in the Roads PA. The widened road, parking areas, pullouts, and Pelican Creek Viaduct would be additions of non-contributing elements to the East Entrance Road Historic District; however, these additions will be compatible with historic use and the overall characteristics of the district. The repaving of nine road pullouts, with some expansion to get parked vehicles fully off of travel lanes, will also be compatible with historic character and use of the district.

The selected alternative will have an adverse effect on the East Entrance Road Historic District through the removal and replacement of the Pelican Creek Bridge. The Pelican Creek Bridge is

listed as a contributing element within the district. Though the bridge is a contributing element to the district, the removal of this bridge and replacement with a viaduct would be a minor overall change to the look and feel of the district, and the replacement of one contributing element out of many does not threaten the integrity of the district as a whole. The adverse effect was also mitigated through the Roads PA by documenting the bridge to Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) standards.

The addition of a turning lane and pedestrian crosswalks to ease congestion and improve safety along this section of the East Entrance Road Historic District and Fishing Bridge Historic District will be compatible with the historic districts. Expansion of the existing parking lot to the east side of the Fishing Bridge Hamilton General Store will be screened by vegetation and compatible with the historic district. The Fishing Bridge Museum National Historic Landmark parking area will be repaved and crenulated stone curbing will be repaired and replaced in kind. Pedestrian walkways will be re-graded to allow for ADA accessibility in accordance with the Secretary of the Interior's Standards for Rehabilitation.

Fishing Bridge itself will be altered slightly; however, this alteration will lead to a longer expected use life for the bridge. The rehabilitation of Fishing Bridge in place will entail minor visual and structural changes to the bridge itself, while keeping its character intact and allowing it to maintain its integrity as a part of the historic district.

In summary, with regard to historic resources, with the exception of the removal of the Pelican Creek Bridge, all of the actions within and adjacent to historic properties are compatible with the historic districts, as well as Secretary of the Interior's Standards for Rehabilitation, and will, therefore, have no adverse effects on the East Entrance Road Historic District or Fishing Bridge Historic District. The adverse effect of the removal of the Pelican Creek Bridge has been mitigated through the preparation of HABS/HAER drawings of the structure. The selected alternative will not impair cultural resources within the park.

### **Threatened and Endangered Species**

The Canada lynx, grizzly bear, and gray wolf were all previously protected pursuant to the Endangered Species Act (ESA) of 1973 within the park. Since the writing of this EA, the grizzly bear and gray wolf are no longer considered threatened within the park.

Construction will impact 14.72 acres of roadside habitat that will be removed due to road widening. Construction activities will introduce noise and vibrations to the area. These activities will tend to keep lynx from using sections of the East Entrance Road that are in close proximity to construction zones. Park staff used the standards and guidelines provided in the Canada Lynx Conservation and Assessment Strategy to gauge the effects of such projects on lynx. Under the strategy, projects occurring outside Lynx Analysis Units have no effects on lynx. None of the recent historical lynx detections were located near the project area and the proposed construction will be outside of Lynx Analysis Units and designated lynx critical habitat. No road-killed lynx have been reported either within or adjacent to the project area and there are no signs of snowshoe hares (their primary food source) in the proposed site. The project would have "no effect on Canada lynx or Canada lynx critical habitat."

This project is consistent with the Yellowstone Parkwide Road Plan 2008-2028. Consultation was completed with the United States Fish and Wildlife Service via formal consultation in 2008 on a Biological Assessment for the Parkwide Road Plan. Determinations were "no effect on

Canada lynx or Canada lynx critical habitat,” and the NPS has determined the selected alternative will not result in an impairment of threatened or endangered species.

## **Conclusion**

In conclusion, as guided by this analysis, good science and scholarship, advice from subject matter experts and others who have relevant knowledge and experience, and the results of public involvement activities, it is the Superintendent's professional judgment that there will be no impairment of park resources and values from implementation of the selected alternative. The NPS has determined that implementation of the selected alternative will not constitute an impairment of the resources or values of Yellowstone National 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 and others, and the professional judgment of the decision maker guided by the direction of NPS *Management Policies 2006*.