

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA), is proposing the Parks Highway MP 183-188 Reconstruction project, Federal/State Project Numbers 0A43021/63389. The DOT&PF is anticipating that construction of the proposed project would begin in 2017.

The project area is located on the George Parks Highway (Parks Highway) between milepost (MP) 183 through 188 and within USGS Quadrangle Map Healy A-5, Fairbanks Meridian. Starting at Milepost (MP) 183 (63.1226° North Latitude, -149.4598° West Longitude) and heading north, the road travels through Section 3, Township 21 South, Range 10 West, and; then into Sections 34, 35, 26, 25, 24, and 13, Township 20 South, Range 10 West; ending at MP 188 at approximately 63.1802° North Latitude, -149.3724° West Longitude (Figure 1).

An existing material site (MS 35-4-042-2), on the east side of the Parks Highway near MP 183, would be utilized for this project. The material site is located on state land managed by the Alaska Department of Natural Resources (DNR) and within the SW ¼ of Section 3 and the SE ¼ of Section 4, Township 21 South, Range 10 West, USGS Quadrangle Map Healy A-5, Fairbanks Meridian, or; approximately 63.1210° North Latitude, -149.4613° West Longitude (Figure 2).

Both the project area and material site are located within the Matanuska-Susitna Borough (MSB).

There is an entirely separate project proposed along the Parks Highway that would terminate at the adjacent south end of the Parks Highway MP 183-188 Reconstruction project. This separate project is named the Parks Highway MP 163-183 Rehabilitation project, Federal/State Project Numbers EAP-0A4-3(20)/61297. It's anticipated that construction of this project would begin during 2015. Effects on the environment from the implementation of both the Parks Highway MP 163-183 and the Parks Highway MP 183-188 projects will be included in our analyses during the preparation of the NEPA document.

### **Purpose and Need**

The purpose of this project is to eliminate safety hazards created by substandard curves along a section of the Parks Highway, between MP 183 through 188, and to bring this section of highway into compliance with current FHWA design standards. Crash data within the project limits indicates an anomalously high accident rate along this stretch of highway, including six fatalities within the past twenty years. Therefore, the project need is to rehabilitate this section of highway to improve the safety for its users and to bring this section into compliance with current FHWA design standards.

### **Project Description**

Near MP 187 there is steep hill with an approximate grade of 6% and a tight curve towards the middle of the decline that does not meet FHWA design standards. The combination of this tight curve and steep hill tends to cause some motorist to drift toward the centerline. To eliminate this hazard the DOT&PF is proposing to straighten this highway segment and reduce its grade. Construction of a passing lane to alleviate traffic congestion, created by climbing the hill, is also proposed at this location (Figure 3).

Additionally, at each end of the bridge crossing the East Fork of the Chulitna River are two substandard curves leading into the bridge's approach. The DOT&PF is proposing to straighten each of these two curves. Because of constraints created from the river's meanders and because the river valley is narrow and flanked by steep hillsides there is limited area available to construct curves that would meet current FHWA design standards and still align with the existing bridge location. Preliminary design suggests that in order to reduce impacts on the environment it may require that a new replacement bridge be constructed slightly downstream so that it aligns with the new highway alignment. Acquisition of ROW would be necessary to construct a downstream replacement bridge (Figure 4).

After the proposed alignments are completed, the abandoned sections of highway will be removed, graded, and permanently stabilized. Additionally, once the proposed new bridge is completed the old bridge will be removed in its entirety and the river banks at this location will be stabilized.

The DOT&PF also proposes improvements to the drainage along this segment of highway. The drainage improvements would be accomplished by grading ditches, and installing, replacing, or extending culverts, as needed. Furthermore, the DOT&PF proposes to rehabilitate the highway's subgrade and surfacing as necessary, and; vegetative clearing to improve sight distance is proposed. The vegetative clearing would be completed within the ROW and have a maximum distance of 50 feet wide from the toe of each respective embankment along straight sections of highway and a 100 feet maximum clearing distance on the inside of curves.

**Right-of-Way:**

The existing DOT&PF ROW through the project corridor varies; the majority of the ROW through this area is 300 feet; extending 100 feet in a northwest direction from centerline and 200 feet from centerline towards the southwest direction. Outside the ROW, on each side of the highway, is state land managed by the DNR.

Land acquisition would be required near MP 187 to accommodate the proposed new highway alignment, needed to correct the substandard curve on a steep grade (Figure 3). Depending on the proposed design, it may require up to 500-feet towards the northwestern direction from centerline and along this segment of highway.

Land acquisition will also be required to construct a replacement bridge at the crossing of the East Fork of the Chulitna River. Depending on the bridge design, a width of up to 400 feet in the downstream direction of the existing bridge and a length of 950 feet, roughly centered on the river's north bank, would need to be acquired (Figure 4).

The DOT&PF will submit an application to the DNR for a Public Easement Expansion and for the placement of riprap below ordinary high water (OHW) of the East Fork of the Chulitna River.

Additionally, there are existing utility easement agreements in place between the DOT&PF, the Matanuska Telephone Association (MTA), and the General Communication, Inc. (GCI).

Coordination with MTA and GCI will be required by the DOT&PF if the utilities need to be relocated as a result of the proposed project actions.

**Navigability:**

The U.S. Coast Guard (USCG) has determined that the entire waterway of the Chulitna River, from its headwater to its confluence with the Susitna River, including its West, Middle, and East Forks as navigable. As such, a USCG Bridge Permit will be required if the DOT&PF is to replace the existing bridge (National Bridge Inventory [NBI] Number 0260) which crosses the East Fork of the Chulitna River.

The types of vessels that use this stretch of waterway are inflatable rafts. Although a design or alignment for a new bridge has not been determined at this time, it's known that the new bridge would be designed so as not to diminish the current navigational clearances. All work associated with the bridge construction will be conducted so that the free navigation of the waterway is not unreasonably interfered with and that the present navigable depths are not impaired. Once the new bridge is complete and open for public use the old bridge will be removed in its entirety and the river banks at this location will be stabilized.

Additionally, Section 10 of the Rivers and Harbors Act of 1899 require that regulated activities conducted below OHW of navigable waters of the U.S. and tributaries associated with navigable waters be permitted by the USACE under Section 10. Therefore, construction of the bridge abutments, installation of the bridge pilings, and installation of riprap armoring below OHW elevation of the East Fork of the Chulitna River will require a Section 10 permit from the USACE.

**Wetlands:**

DOT&PF contracted HDR Alaska, Inc. (HDR) to complete wetlands delineation of the proposed project area. HDR's report titled *Draft Jurisdictional Determination Report George Parks Highway, Mileposts 163 to 188, Alaska*, November 2014 is on file at the DOT&PF Northern Region and is available upon request; the final report is anticipated during December 2014. Based on the wetland delineations, the DOT&PF has made a preliminary jurisdictional determination that Waters of the U.S. would be affected by the proposed project. As such, the proposed actions affecting wetlands are regulated activities and will require a Section 404 Permit in addition to a Section 10 Permit from the USACE. Furthermore, a Section 401 Water Quality Certification will be required from the Alaska Department of Environmental Conservation (ADEC) as will an Alaska Pollutant Discharge Elimination System (APDES) General Permit for construction activities.

**Floodplain Management**

A September 10, 2014 review of the Federal Emergency Management Agency (FEMA) website indicates that "FEMA has not completed a study to determine flood hazard for the selected location [project area]; therefore, a flood map has not been published at this time." Since there is no Flood Insurance Rate Map (FIRM) covering the project area and there is no community within the project area a Flood Plain Development Permit would not be required.

However, the project actions of replacing the East Fork of the Chulitna River Bridge and armoring the bridge abutments with riprap would be designed so that the volume and flow of water underneath the new bridge structure would not be diminished, instead it's anticipated that the new bridge would be designed to increase the hydraulic capacity.

**Anadromous Fish Streams and Essential Fish Habitat:** The DOT&PF is proposing to replace the culverts at the crossing of Hardage Creek (AWC Code 247-10200-2381-3260-40200) and to replace the bridge crossing the East Fork of the Chulitna River (AWC Code 247-41-10200-2381-3260); both are anadromous streams. As provided in the Alaska Department of Fish and Game (ADF&G) *Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes*, Hardage Creek is listed as having Chinook salmon rearing (Kr) and the East Fork of the Chulitna River is listed as having Chinook salmon spawning (Ks). The ADF&G has established that the in-water work timing window for anadromous streams near the project area is May 15 through July 15. The DOT&PF is assuming this same in-water work timing window will apply for the proposed in-water work at Hardage Creek and the East Fork of the Chulitna River.

Chinook salmon are managed under a federal Fishery Management Plan and have Essential Fish Habitat (EFH), under the authority of the Magnuson-Stevens Fishery Conservation and Management Act, as amended (Magnuson-Stevens Act). The project actions are not anticipated to adversely affect EFH; however, the DOT&PF will complete an EFH Assessment to determine whether the actions of replacing the bridge at the crossing of the East Fork of the Chulitna River or replacing the culverts underneath the road at the Hardage Creek crossing would result in reductions of the quality and/or quantity of EFH. NOAA Fisheries will be notified of the project actions through the streamlined National Environmental Policy Act (NEPA) process and will be consulted if it's determined that the project actions may adversely affect EFH.

Additionally, in compliance with the Memorandum of Agreement between the ADF&G and the DOT&PF for the design, permitting, and construction of fish passage culverts the DOT&PF's Regional Hydraulics Engineer will coordinate with ADF&G to ensure that the culverts are designed and installed to provide efficient fish passage. The DOT&PF will also submit an application to the ADF&G for a Title 16 Fish Habitat Permit for the required authorization needed to complete in-water work at the East Fork of the Chulitna River and at Hardage Creek.

#### **Threatened and Endanger Species:**

A September 17, 2014 review of the U.S. Fish and Wildlife Service's (FWS) Information, Planning, and Conservation System (IPaC) website (<http://ecos.fws.gov/ipac/?jsessionid=5F2B6D226C0C47C297984B2970561CD4>) indicated that there are no listed species or critical habitats present within or near the project area.

#### **Migratory Bird Treaty Act**

A September 17, 2014 review of the FWS' IPaC) website indicated that there are six Migratory birds of concern within the proposed project area, the species of conservation concern are: Arctic Tern (*Sterna paradisaea*); Bald eagle (*Haliaeetus leucocephalus*); Lesser Yellowlegs (*Tringa flavipes*); Olive-Sided flycatcher (*Contopus cooperi*); Rusty Blackbird (*Euphagus carolinus*), and; Solitary Sandpiper (*Tringa solitaria*).

The FWS' *Land Clearing Timing Guidance for Alaska* recommends the time periods to avoid vegetation clearing for the Interior Region having forest or woodland and shrub or open habitat types as being May 1 through July 15, with Canada geese and swan habitat beginning April 20. [http://www.fws.gov/alaska/fisheries/fieldoffice/anchorage/pdf/vegetation\\_clearing.pdf](http://www.fws.gov/alaska/fisheries/fieldoffice/anchorage/pdf/vegetation_clearing.pdf)

The DOT&PF will include in the project's contract specification that the awarded contractor will comply with the requirements of the Migratory Bird Treaty Act and will comply with the above recommended timing guideline for clearing avoidance.

### **Bald and Golden Eagle Protection Act**

A September 17, 2014 review of the FWS' IPaC) website indicated that Bald eagle (*Haliaeetus leucocephalus*) occur year-round and are breeding in the project area. On September 19, 2014, the DOT&PF completed a reconnaissance of the project area, which in part included scouting for the presence of raptors' nests; none were observed. However, our project contract will specify of the awarded contractor that if any eagle nest is located within a half mile of project related activities then they shall contact the FWS Permit Office at: [permitR7MB@fws.gov](mailto:permitR7MB@fws.gov) or 907-786-3685, and refer to <http://alaska.fws.gov/eaglepermit/permit.htm> for additional guidance.

### **Invasive Species**

A September 23, 2014 review of the University of Alaska Anchorage's Alaska Natural Heritage Program-Alaska Exotic Plants Information Clearinghouse (AKEPIC) Non-Native Plant Species Data Portal (<http://aknhp.uaa.alaska.edu/maps/akepic/>) identified nine non-native plant species within the project area. The nine species cited are:

1. narrowleaf hawksbeard (*Crepis tectorum* L.);
2. pineapple weed (*Matricaria discoidea* DC);
3. white sweet clover (*Melilotus albus* Medik.);
4. yellow sweet clover (*Melilotus officinalis* (L.) Lam.);
5. timothy (*Phleum pratense* L.);
6. common plantain (*Plantago major* L.);
7. annual bluegrass (*Poa annua* L.);
8. common dandelion (*Taraxacum officinale* F.H. Wigg.), and;
9. scentless false mayweed (*Tripleurospermum inodorum* (L.) Sch. Bip.)

With the implementation of practicable measures to minimize the introduction or spread of invasive species, the project is expected to result in no substantial spread of invasive species. Minimization measures proposed are:

- Sequence construction activities to minimized disturbed areas.
- Implement timely seeding of project-disturbed areas with non-invasive species providing adequate cover.
- Contract specifications will include DOT&PF 2004 Standard Specification for Highway Construction, Special Modification Section 724-2.02 Seed Materials that states: Construction Contractor shall comply with the DNR Division of Agriculture, "Seed Regulations", latest edition. Grass seed shall be furnished in standard containers on which states the name of the seed species and cultivars of seed.

- The DOT&PF will recommended that the awarded contractor use erosion control products composed of forage material (straw bales, straw wattles, straw blankets, coir logs, ect.) be weed free certified.

However, should invasive species become a problem then the DOT&PF would implement its *Integrated Vegetation Management Plan* for the use of herbicides as a maintenance tool, along with non-chemical maintenance and vegetation control measures, following the required posting and notification requirements specified in 18 AAC 90.640. All herbicide application shall comply with state and federal regulations. All herbicide application will be applied by certified applicators and using state-approved herbicides in accordance with their labels.

### **Material Site:**

The DOT&PF proposes to utilize an existing material site (MS 35-4-042-2) near MP 183 of the Parks Highway (Figure 2). This site is on state land managed by the DNR. The DOT&PF has a current Material Sales Contract with the DNR for use of this material site, ADL 224961.

The MSB regulates material extraction within the borough. However, under MSB Code 17.30.020 Applicability, Section (H) it's stated that: "This chapter shall not apply to earth material extraction activities on land owned by the state of Alaska that are in existence as of the date of adoption [2012] of the ordinance codified in this chapter except for such operations that extract materials within four feet of the water table. Where a site is exempt under this subsection the exemption is revoked if operations proceed to within four feet of the water table."

The DOT&PF will require that the awarded contractor submit a project Mining and Reclamation Plans to DOT&PF for review prior to them submitting the plan to DNR for their approval. The contractor's Mining and Reclamation Plan is subject to the DNR's Material Sale Contract and all site-specific stipulations contained. If the contractor chooses to pursue development of a new material site then it's the contractor's responsibility to obtain all required federal, state, and local permits; material sales contract(s); consistency statements, and ; concurrences.

### **Cultural Resources**

During June 2013 the Archaeological Survey Unit of the Office of History and Archaeology (OHA) completed a cultural resource survey of the area within the project's ROW between MP 183-187. OHA's report is titled *Cultural Resource Investigation of the Parks Highway Milepost 163-187: DOT&PF Rehabilitation Project EAP-0A4-3(20)/61297*, November 2013, and is on file at OHA.

Additional identification efforts were completed on September 19, 2014, by a DOT&PF professionally qualified staff member (PQI), meeting the qualifications of the Secretary of the Interior's Standards and Guideline (per 48 CFR 4438-44739). The PQI completed a pedestrian survey of project areas that were not included as part of the original scope of work for OHA's 2013 cultural resource survey. The September 2014 survey includes areas within and outside the ROW between MP 186.5 through 188.5. At this location, the existing ROW is 300 feet; extending 100 feet in a northwest direction from centerline and 200 feet from centerline towards the southwest. The cultural resource survey was also expanded to include the area within 500 feet from centerline towards in the northwest direction and between MP 186.5 through 188.5.

This area was included because it's anticipated that ROW acquisition will be required through this area for the proposed highway realignment at this locale. Also included in this survey was a rectangular area located outside the existing ROW at the proposed location for the new bridge crossing (Figure 4).

The area of potential effect (APE) will be defined at a later date and assessments for determinations of eligibility and findings of effect will be carried out in compliance with Section 106 of the National Historic Preservation Act. It is however noteworthy that OHA's 2013 cultural resource report cited that no significant cultural resources were located within the project study area. Additionally, DOT&PF's 2014 cultural resource survey did not identify any resources eligible for the National Register of Historic Places either.

**National Wildlife Refuges:**

The project area is not within any National Wildlife Refuge.

**National Parks, Preserves, Monuments, and Wild and Scenic Rivers:**

Although Denali National Park is nearby, the project area is not within the boundaries of this or any other National Parks, Preserves, or Monuments; nor does the project area border or cross any designated Wild and Scenic Rivers.

**Federal Recreation Areas:**

The proposed project will not take place within any Federal Recreational Area.

**State Parks, State Refuges, Critical Habitat Areas, and Sanctuaries:** The Parks Highway runs through the boundaries of Denali State Park at approximate MP 132 through MP 170. Our proposed project is from MP 183 through 188, which is outside the Denali State Park boundary. There is a DOT&PF wayside at approximate MP 185.5 that allows overnight parking. However, this wayside is not a State Park. Furthermore, the project area is not located within a State Refuge, Critical Habitat Area, or Sanctuary.

**Social, Cultural and Economic Impacts**

The proposed project is not anticipated to adversely impact the elderly, handicapped, minority and ethnic groups, non-drivers, or the economically disadvantaged. Nor is it anticipated that there be adverse impacts to disadvantaged social groups, neighborhoods, or community cohesion from the proposed project. The project actions would not result in adverse economic impacts.

**Contaminated Sites:**

A September 29, 2014 review of the Alaska Department of Environmental Conservation (ADEC), Division of Spill Prevention and Response, Contaminated Sites Program database ([http://www.dec.state.ak.us/SPAR/CSP/db\\_search.htm](http://www.dec.state.ak.us/SPAR/CSP/db_search.htm)) indicated that there were no records of contaminated sites listed within a 5 mile radius of the project corridor.

**Air Quality**

The project corridor is not currently in a nonattainment area or maintenance area for air quality control under the Clean Water Act. Therefore, projects receiving federal funds or approvals do not require a conformity analysis under the Transportation Conformity regulations. However,

particular attention will be given during construction activities to take reasonable precaution per 18 AAC 50.045(d) to prevent fugitive dust. Our project contract specifications will require the awarded contractor to apply water, as needed, to the surfaces disturbed by the construction activities to mitigate fugitive dust.

### **Noise**

Per 23 CFR 772, this is not a Type I Project because it does not halve the distance between the traffic noise source and the closest receptor. As such, a noise analysis or consideration of noise abatement is not required.

### **Permits, Consultations, and Concurrences**

It is anticipated that the proposed project action will require the following permits, consistence statements, consultations, or concurrences:

- USCG Bridge Permit for the proposed replacement bridge at the crossing of the East Fork of the Chulitna River;
- USACE Section 404/10 permits for placement of fill into wetlands and installations of riprap below OHW elevation of the East Fork of the Chulitna River;
- DEC Section 401 Certificate of Reasonable Assurance;
- DNR Temporary Water Use Permit ;
- DNR ROW agreement for Public Easement Expansion and for the placement of riprap below OHW of the East Fork of the Chulitna River;
- ADF&G Title 16 Fish Habitat Permit for in-water work occurring in the East Fork of the Chulitna River and Hardage Creek;
- Section 106 of the National Historic Preservation Act consultation with the SHPO;
- Section 7 of the Endangered Species Act consultation with the FWS;
- Consultation with NOAA National Marine Fisheries Service, per Section 305(b)(2)-(4) of the Magnuson-Stevens Fishery Conservation and Management Act, as amended;
- DEC Alaska Pollutant Discharge Elimination System (APDES) Construction General Permit;
- DEC General Permit for Excavation Dewatering will be needed if dewatering is required to construct the bridge abutments or for the culvert replacement at Hardage Creek, and;
- Authorization is required from the Matanuska-Susitna Borough if a new material site is to be developed and/or if a material site is mined to a depth that is within four feet above the water table

Additionally, because over 1 acre of land disturbance would occur from the proposed project actions a DEC approved Storm Water Pollution Prevention Plan (SWPPP), developed by the awarded contractor, will be required