

Federal Highway Administration U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION WESTERN FEDERAL LANDS HIGHWAY DIVISION 610 East Fifth Street Vancouver, Washington 98661

Kenai Spur Highway Extension Kenai Peninsula Borough Finding of No Significant Impact AK KENAI 2016(1)



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Kenai Spur Highway Extension Kenai Peninsula Borough Decision Document and Finding of No Significant Impact

AK KENAI 2016(1)

Submitted Pursuant to Public Law 91-190 National Environmental Policy Act 42 USC 4332(2)(c)

U.S. Department of Transportation Federal Highway Administration Western Federal Lands Highway Division

The following people may be contacted for more information:

Kristin Austin, Lead Coordinator Planning Western Federal Lands Highway Division Federal Highway Administration 610 East Fifth Street Vancouver, Washington 98661 Steve Morrow, Environmental Protection Specialist Western Federal Lands Highway Division Federal Highway Administration 610 East Fifth Street Vancouver, Washington 98661

May 2018

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Acronyms and Abbreviations

ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
ADT	Average Daily Traffic
AK	Alaska
APDES	Alaska Pollutant Discharge Elimination System
APE	Area of Potential Effect
ATV	All-Terrain Vehicle
BMP	Best Management Practice
CEQ	Council on Environmental Quality
CCSRS	Captain Cook State Recreation Area
CIRI	Cook Inlet Region Incorporated
CO	Contract Officer
DCCED	Alaska Department of Commerce, Community and Economic Development
EA	Environmental Assessment
EJ	Environmental Justice
EPA	Environmental Protection Agency
EO	Executive Order
ESCP	Erosion and Sediment Control Plan
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
KNWR	Kenai National Wildlife Refuge
KPB	Kenai Peninsula Borough
KSE	Kenai Spur Extension
KSH	Kenai Spur Highway
LF	Linear Feet
NEPA	National Environmental Policy Act
NRCS	Natural Resources Conservation Service
OHA	Office of History and Archeology

ORV	Off-Road Vehicle
ROW	Right-of-Way
S&O	Stewardship & Oversight
SPCC	Spill Prevention Control and Countermeasures
SWPPP	Stormwater Pollution Prevention Plan
USACE	US Army Corps of Engineers
USDOT	US Department of Transportation
USFWS	US Fish & Wildlife Service
WFLHD	Western Federal Lands Highway Division

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1. Background

In the 1980's private property north of the Captain Cook State Recreation Area in Nikiski was subdivided into residential lots for the Gray Cliff and Moose Point subdivisions. During the process of subdividing the Gray Cliff and Moose Point subdivisions KPB established a 100-foot-wide transportation corridor to provide access to the lots offered for sale. As these lots were developed and occupied, the only overland access to these properties was via the clearing adjacent the existing Andeavor AK Pipeline and Harvest Pipeline Company corridor. As there was no developed trail or roadway, access was solely through offroad vehicles pioneering trails through the pipeline easement and adjacent KPB right-of-way (ROW). Because of the unimproved nature of the route and presence of wetlands, several large, impassable sinkholes have formed from the ORV traffic that require users to bypass on one side or the other. This has resulted in multiple vehicle trails that are spread over a large area rather than being confined to a single alignment or within the platted ROW. These off-road activities have caused significant degradation to streams such as Leif's Creek and Otter Creek; both of which support anadromous fish runs, as well as significant degradation to wetland and upland habitats. This activity has also caused erosion, sedimentation and water quality degradation to Leif's Creek and the associated turbid runoff and sedimentation into Cook Inlet. Jacobs Ladder is a heavily used access off-road trail that travels along, and through Leif's Creek as it accesses and connects Cook Inlet Beach to the KSH ROW.

In 2014, Apache Corporation began considering the development of a drill pad site within the Kenai National Wildlife Refuge (KNWR) in the Nikiski area, approximately seven miles north of the KSH terminus. The Apache Kenai Spur Extension was designed as an oil and gas exploration road. Apache took preliminary steps towards developing a project extending the KSH to the proposed site. In September, 2015 the US Army Corps of Engineers (USACE) issued permit POA-2014-460 authorizing Apache Corporation to fill 16.6 acres of jurisdictional wetland as part of constructing the Kenai Spur Extension (KSE) to access fields for oil and gas exploration. As the issuance of the 404 permit was a federal action the USACE conducted an environmental assessment as required under the National Environmental Policy Act (NEPA). In 2016 Apache Corporation pulled out of existing business developments in Alaska and withdrew from the planned development to extend the KSH to the proposed oil and gas exploration field. Apache accumulated a significant amount of preliminary engineering and environmental data and permits for the project and agreed to donate the completed work and environmental approvals to the Kenai Peninsula Borough. KPB is using that donated preliminary engineering and environmental work as part of the required 20% 'match' to access the remaining grant funds. WFLHD is working with the KPB in a Stewardship and Oversight (S&O) role to ensure KPB delivers the project in accordance with Title 23 requirements and other applicable federal laws. WFLHD is performing Stewardship & Oversight and environmental services on the project pursuant to its authority under 23 USC 308. This Environmental Assessment (EA) describes the reasonable range of alternatives and the process the Project Partners used to determine these alternatives. It also analyzes the impacts of these alternatives in the context of the existing environmental conditions and proposes mitigation measures to reduce or eliminate impacts.

2. Project Purpose and Need

2.1. Purpose

Implementation of this project will restrict off-tracking by off-road vehicles and rectify on-going environmental degradation and an on-going source of pollution into Cook Inlet by providing a stable, year-round traveling surface for residents of Gray Cliff and Moose Point Subdivision and recreationalists going

beyond to Kenai NWR. Road construction away from the pipelines will also reduce chances of conflict and potential damages.

2.2. Need

Residents and property owners within the Gray Cliff Subdivision, and Moose Point Subdivision have long requested improved access to their properties. Currently access is limited to off-road vehicles (ORVs) and by foot. Access is limited by the season and time of day. Access is limited daily when property owners look to bypass some of the more impassable areas by traveling along the beach of Cook Inlet during periods of low tide and then traveling up Jacobs Ladder. Beach access is used to avoid the first approximately4 miles of KSH extension because of the wetland/swampy areas where ATVs can get stuck. Access is limited seasonally when all-terrain vehicles (ATVs) or ORVs traverse through the wetlands, turning the areas turned into impassable mudholes, limiting consistent access to when the ground is frozen. Emergency response to residents and property owners in the Gray Cliff and Moose Point Subdivisions is limited to what can be accessed via ATVs or ORVs. By completing the KSH extension, emergency response to residents and property owners in the Gray Cliff and Moose Point Subdivisions will be greatly improved. ORVs/ATVs are currently using the utility easement in close proximity to the high-pressure petroleum transmission pipelines, this close proximity creates risk of an ORV/ATV losing control and crashing into the pipeline.

3. Decision

WFLHD, in partnership with Kenai Peninsula Borough, is the lead agency for National Environmental Policy Act (NEPA) compliance. After reviewing the Kenai Spur Highway Extension Draft Environmental Assessment (EA) (issued January 11, 2018); Kenai Peninsula Borough input; and public comments on the proposed project; WFLHD has selected the Build Alternative. The EA analyzes the Build Alternative and the No Action Alternative.

The selected alternative is an 8.1 mile extension of Kenai Spur Highway (KSH) as a single-lane gravel road. The project would begin at the Captain Cook State Recreation Area (CCSRA) and extend northeast, within the KPB's existing ROW through the Gray Cliff and Moose Point Subdivisions, and terminate at a turnaround just past the existing bridge crossing of Otter Creek. The selected alternative includes mitigation measures and environmental commitments listed in Section 9 and meets the stated purpose and need of the project while minimizing impacts to the environment.

The EA analyzed the effects of the Selected Alternative on numerous resources, including:

Transportation, land use, recreation, wetlands, floodplains, fish, wildlife & vegetation, cultural and historic resources, soils and geology, noise, visual quality, air quality, water quality, hazardous materials and spills, social and community and environmental justice; and cumulative effects for all of those resources.

No significant impacts to these resources were identified. The findings are based on the evidence and conclusions set forth in the EA.

4. Description of Selected Alternative

The KPB proposed extension of KSH is intended to be an 8.1 mile, single-lane gravel road extending to a turnaround just beyond the existing crossing of Otter Creek. The extension will be an 18-foot wide driving surface with sixteen 10-foot wide turnouts and five 25-foot wide turnouts. These turnouts will be located at platted subdivision road approaches, at specified locations not to exceed every 2000 LF, or where hilly terrain and limited site distance are prevalent to assist transportation and safety. Within the KSH extension there will be three 80-foot by 100-foot turn-arounds. These turn-arounds will be located just beyond the intersection with Jacobs's Ladder (station 224+00), just before the intersection with Larkspur Loop (station 358+00) and at the terminus of the KSH extension beyond the Otter Creek crossing (station 433+25). The road design exceeds the applicable design standards, KPB Road Service Area standards for Category II Engineer Designed roads, with an approved exception for lesser width. The road design also meets the AASHTO Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT <400), 2001 and will be a USFS Level 4 road. Upon completion of construction of the road extension that meets the KPB Road Construction Standards the road will be accepted into the KPB Road Service Area (RSA) for maintenance.

In the uplands, the 18-foot wide road will be constructed by:

- 1. Clearing and grubbing with the mulch left in place.
- 2. Geotextile fabric to separate the native ground from the imported fill;
- 3. gravel fill placed and compacted in 8" lifts. (3 lifts minimum); and
- 4. the top 4" of fill to be composed of 3" minus gravel.

In the wetlands, the 18-foot wide road will be constructed by:

- 1. Vegetation cut to ground level, but no grubbing or excavation.
- 2. Geotextile fabric to separate the native ground from the imported fill;
- 3. gravel fill placed and compacted in 12" lifts. (2.5 lifts minimum); and
- 4. the top 4" of fill to be composed of 3" minus gravel.
- 5. To limit the footprint/impacts in wetlands, the Contractor may not place fill, remove material or run equipment outside the designated 29.5' construction zone.

5. Rationale for Decision

The selected alternative meets the needs of the public, provides safe, year-round access to Gray Cliff and Moose Point Subdivisions, and to Kenai NWR, and eliminates the ever-expanding off-road vehicle trails around and through the KPB ROW, causing degradation to streams, wetlands and upland areas and threatening the integrity of the pipeline.

With the No Action Alternative, the proposed project would not be constructed and restricted access to Gray Cliff and Moose Point Subdivisions would continue. Environmental degradation and the on-going source of sediment pollution into Cook Inlet resulting from ORVs/ATVs continued off-tracking and mudbogging through the unimproved KPB ROW, would continue.. The risk of a transmission pipeline leak,resulting from a crash into the pipeline, because of the close proximity of high-pressure oil transmission lines to ORV/ATV traveling at high rates of speed to avoid getting stuck in the mud on very slippery and uneven surfaces, would also continue. Therefore, the No Action Alternative does not meet the purpose and need for the project.

6. Other Alternatives Considered

With the No Action Alternative, the proposed project would not be constructed and restricted access to Gray Cliff and Moose Point Subdivisions would continue. Environmental degradation and the on-going source of sediment pollution into Cook Inlet would continue; a result of ORVs/ATVs continued off-tracking and mud-bogging through the unimproved KPB ROW.

7. Public Involvement

An integral part of the NEPA environmental review process is to engage the public during project development. The goal of the public involvement process is to develop public awareness and understanding of the project, gain public input from potentially affected interests, and appropriately consider public issues and concerns.

WFLHD issued the Draft EA for public and agency review and comment on January 11, 2018, with a closing date of February 15, 2018. Following the 35-day public review and comment period for the Draft EA, the project team reviewed, evaluated, and responded to all comments. **Appendix A** includes formal public comments received on the Draft EA. **Appendix B** is the compilation of responses to individual comments on the Draft EA. Where appropriate, some responses also resulted in revisions to the EA, reflected in the Final EA (**Appendix C**)

8. Environmental Issues Addressed

This section summarizes impacts to environmental resources anticipated to result from the selected alternative, as described in further detail in the Final EA. **Table 1** compares the No Action Alternative to the Selected Alternative.

Environmental Resource	No Action Alternative	Build (Selected) Alternative Direct Impacts	Build (Selected) Alternative Indirect Impacts	Build (Selected) Alternative Cumulative Impacts
Transportation and Access	Continued access difficulties, access limited to ORVs/ATVs and foot travel.	<u>Construction</u> Potential of temporary delays to residents of Gray Cliff & Moose Point, trucks hauling material unlikely to travel through Nikiski <u>Operation</u> Provide all season access to KPB	Increased long- term reliability of road. Traffic use would likely increase over time because of improved access that would allow automobile use. Improved access and road reliability could	Combined with past, present, and reasonably foreseeable future actions, the Build Alternative would not be expected to significantly contribute to cumulative effects to transportation and traffic.

Table 1. Summary of Impacts: No Action and Build (Selected) Alternative

Environmental Resource	No Action Alternative	Build (Selected) Alternative Direct Impacts	Build (Selected) Alternative Indirect Impacts	Build (Selected) Alternative Cumulative Impacts
		platted subdivisions and recreation areas. Road conditions would improve and remain in an improved state over current condition as KPB assumes maintenance responsibility.	facilitate private roads or driveways constructed to connect undeveloped property to the to the KSH extension.	
Land Use	No change to land use	<u>Construction</u> No impact <u>Operation</u> No impact. Work would occur within the existing KPB dedicated ROW.	No major change to land use, the existing developable land was platted by KPB in 1980's. The Build Alternative would improve access to platted lots which could facilitate a slightly increased rate of development.	Combined with past, present and reasonably foreseeable future actions, the Build Alternative would not be expected to significantly contribute to cumulative effects for land use.
Recreation	Continued access difficulties to recreation areas and activities	Construction Temporary, minor decrease in recreational use due to construction traffic controls Operation Improved access to Kenai National Wildlife Refuge for recreational use	Increased road reliability and safety for recreationists could encourage increased recreation opportunities.	Neutral impact
Wetlands	Continued on-going degradation and	Construction	No impact.	Improved access to platted lots could

Environmental Resource	No Action Alternative	Build (Selected) Alternative Direct Impacts	Build (Selected) Alternative Indirect Impacts	Build (Selected) Alternative Cumulative Impacts
	sedimentation of existing wetlands and streams caused by ORV/ATV traffic off- tracking and taking multiple routes to successfully traverse through to reach private properties in Gray Cliff and Moose Point subdivisions	 Potential temporary impacts outside the construction zone. Mitigated through implementation of Best Management Practices (BMPs). Permanent impact to 14.0 acres of wetlands. Despite the permanent loss of wetlands to build the road, the overall impact to wetlands will likely be beneficial because it will provide travelers a solid crossing through these areas and ease the ongoing resource damage from the avoidance of new trails that are currently being created. 		facilitate increased rate of wetland fills from construction of private roads or driveways constructed to connect undeveloped property to the KSE. Combined with past, present and reasonably foreseeable future actions, the Build Alternative would not be expected to significantly contribute to cumulative effects for wetlands.
Floodplains	No mapped floodplains in the project area.	Construction No impact Operation No impact.	No impact.	No impact.

Environmental Resource	No Action Alternative	Build (Selected) Alternative Direct Impacts	Build (Selected) Alternative Indirect Impacts	Build (Selected) Alternative Cumulative Impacts
Fish, Wildlife & Vegetation	Ongoing temporary disturbances to wildlife species. An invasive species, reed canary grass, has been introduced in the area, continued disturbance in wetlands will allow this invasive to become distributed through the corridor Anadromous and local rearing streams are being crossed in an expanding footprint by off road vehicles causing loss of fish habitat and impacts downstream. Potential removal of riparian plants, mature forest, or early and mid-successional forest due to regular maintenance of the 100' ROW.	Construction Construction would temporarily disrupt wildlife populations Operation Temporary loss of habitat due to construction-related clearing; disturbed areas would be re- vegetated to re- establish habitat value in the long run Temporary, localized disruption to wildlife during construction	Potentially improved mobility of amphibians in streams through the aquatic organism passage culverts that cross under the proposed KSH extension. Improved road surface conditions would allow for increased traffic speeds, increasing risk of wildlife collisions.	Improved access to platted lots could facilitate increased rate of development and vegetation removal of these private lots adjacent to the KSE. Combined with past, present and reasonably foreseeable future actions, the Build Alternative would not be expected to significantly contribute to cumulative effects for fish, wildlife and vegetation.
Cultural and Historic Resources	No change	No impact	No Impact	No Impact
Soils and Geology	No change	Construction Minimal impact during construction until vegetation is established. Operation Improved road surface conditions would reduce impacts related to current use by off road vehicles within the project area.	No Impact	No Impact
Noise	No change	Construction Temporary increased noise levels would occur at closest	No Impact.	Improved access to platted lots could facilitate increased rate of development

Environmental Resource	No Action Alternative	Build (Selected) Alternative Direct Impacts	Build (Selected) Alternative Indirect Impacts	Build (Selected) Alternative Cumulative Impacts
		sensitive receptors but would be below levels outside the project area Operation Noise levels are anticipated to increase slightly due to traffic volumes increasing, but will remain relatively low.		and traffic volumes resulting in increased noise levels. Combined with past, present and reasonably foreseeable future actions, the Build Alternative would not be expected to significantly contribute to cumulative effects for noise.
Visual Quality	No change	Construction Temporary reduction in visual quality from construction equipment and vegetation removal	No effect	Neutral cumulative impact
Air Quality	No change	Construction Temporary increase in dust and exhaust during construction. Operation Use of graveled roadway surface by vehicles could lead to increase in dust.	Minor impacts	No Impact
Water Quality	Continued on-going degradation and sedimentation of existing wetlands and streams caused by ORV/ATV traffic off-tracking and taking multiple routes to successfully traverse through to reach private properties in Gray Cliff and Moose Point subdivisions	ConstructionPotential for waterquality degradationduring constructionas a result ofsedimentation fromfailed BMPsOperationImplementation ofthis project will rectifyon-goingenvironmentaldegradation and anon-going source of	Minor impacts.	Improved access to platted lots could facilitate increased rate of development and cumulative impacts to water quality.

Environmental Resource	No Action Alternative	Build (Selected) Alternative Direct Impacts	Build (Selected) Alternative Indirect Impacts	Build (Selected) Alternative Cumulative Impacts
		pollution into Cook Inlet by providing a stable, year-round traveling surface that will restrict off- tracking by off-road vehicles and the on- going degradation of Leif's Creek and wetlands and sediment loads into Leif's Creek and Cook Inlet.		
Hazardous Materials and Spills	Risk of petroleum spill/hazardous waste spill incident as a result of a crash in the ROW and/or into the high-pressure transmission line	Construction Potential for spills during construction as a result of failed BMPs	No Impact	No Impact
Social and Community	No Impact	Construction Temporary traffic delays, increased noise, access changes, and other construction-related disruptions to residents Proposed construction would provide temporary income for local and regional workers and local businesses	No Impact	No Impact
Environmental Justice	No change	No Impact	No Impact	No Impact

8.1. Transportation and Access

During construction the selected alternative will result in temporary delays to residents of Gray Cliff and Moose Point. Long-term benefits to transportation and access in the project area will result from increased

reliability. Road conditions would be improved and remain in an improved state over current condition as KPB assumes maintenance responsibility.

8.2. Land Use

The selected alternative would result in no major change to land use, the existing developable land was platted by KPB in 1980's. The proposed facility may encourage development of the parcels within the existing platted subdivisions through improved access, but it does not provide new access to properties previously inaccessible.

8.3. Recreation

During construction the selected alternative may result in a minor decrease in recreational use due to construction traffic controls. Long-term benefits include increased road reliability and safety and would encourage increased recreation access and opportunities.

8.4. Wetlands

The selected alternative would result in the permanent loss of 14.0 acres of wetlands, despite the permanent loss of wetlands to build the road, the overall impact to the resource will likely be positive because it will provide travelers a solid crossing through these areas and ease the ongoing damage to wetlands from the avoidance of the ever-expanding new trails in the wetlands that are being created.

8.5. Fish, Wildlife and Vegetation

During construction the selected alternative would result in temporary loss of habitat due to constructionrelated clearing; there could be localized disruption to wildlife. The disturbed areas would be re-vegetated to re-establish wildlife habitat value in the long run.

8.6. Water Quality

The selected alternative will rectify on-going environmental degradation and an on-going source of pollution into Cook Inlet by providing a stable, year-round traveling surface that will restrict off-tracking by off-road vehicles and the on-going degradation of Leif's Creek and wetlands and sediment loads into Leif's Creek and Cook Inlet.

9. Summary of Mitigation Measures

Table 2.	Summary	of Mitigation	Measures

Resource	Mitigation Measures
Transportation	 Signage installed and public notices locally advertised in advance of and during traffic changes to inform the public; Installation and coordination of temporary traffic control devices to minimize the impacts to motorists.
Land Use	 Any proposed land use activities will require compliance with the 2005 Kenai Peninsula Borough Comprehensive Plan

Recreation	 FHWA would coordinate with USFWS so that notices regarding KSH delays and closures can be posted on the USFWS KNWR website, in newspapers (e.g. Peninsula Clarion), etc.
Wetlands	 Avoidance: Full avoidance of wetlands by siting the project turnarounds and all but 1 turnout in upland areas. Construction of an 18' wide one-lane road with 2:1 shoulders itself avoids additional impacts to Waters of the US that a KPB standard 28' wide two-lane road with 2.5:1 shoulders would cause. This design width exception reduces the wetland impact footprint by 4.6 acres. Fill area boundaries will be clearly delineated in the field to avoid accidental impacts from equipment operation and fill material placement. In wetlands, the Contractor may not place fill (including clearing debris), remove native material or run equipment outside the designated 40' wide construction zone.
Fish, Wildlife & Vegetation	 Limit tree cutting/clearing between May 1 and July 15 Locally native plants would be used to improve the revegetation rate. Implement all BMPs and conditions identified in US Army Corps of Engineers Permit POA-2015-460 and Alaska Department of Fish & Game Habitat Permits. All equipment working in project area would be free of weed seed. Precautions would be taken to prevent the introduction and spread of weeds caused by moving weed-infested sand, gravel, borrow, and fill material. In addition to Leif's Creek and Otter Creek, two other un-named streams support anadromous fish and 4 other streams support resident fish. All stream crossings will be designed to meet Alaska Department of Fish and Game (ADFG) fish passage criteria.
Cultural and Historic Resources	 If previously unknown archeological materials or human remains are discovered during the course of construction, all activities will cease in the immediate area of the finds pending further recommendations from the FHWA in consultation with the Alaska OHA.
Soils and Geology	 Topsoil would be conserved and stockpiled for later use to enhance revegetation success. Appropriate sediment and erosion control BMPs would be put into place before construction begins and would be maintained in working order throughout the construction period and until vegetation is established.
Noise	 All equipment would have sound control devices no less effective than those provided on the original equipment. All equipment would have muffled exhaust. All equipment would comply with pertinent noise standards of the EPA.
Visual Quality	All disturbed areas will be reseeded with native vegetation.
Air Quality	 Operate all equipment in accordance with manufacturer's recommendations to minimize emissions. Shut down idling heavy equipment when not in use.

	 Implement BMPs during construction activities to mitigate fugitive dust and reduce particulate matter emissions, e.g. apply water as needed to control fugitive dust emissions. Utilize calcium chloride as part of the routine road maintenance program as a dust calming measure.
Water Quality	 ADFG permits have been obtained to cross two anadromous streams; Sta 54+45 and 348+90. Currently, ORV/ATVs are crossing through the streams causing loss of habitat by degrading the bank habitat and increasing sediment load with in the corridor. Installing culverts and drainage mat in wetland areas as appropriate to minimize road effects on natural drainage patterns and to restore hydrologic flow currently impacted by extensive off-road vehicle use. Contractor will develop a Stormwater Pollution Prevention Plan (SWPPP) and BMPs would be implemented to control and prevent stormwater runoff from causing sedimentation in the wetlands, and turbidity in the open waters. Erosion control measures would be left in place until vegetation becomes established. No storage of fuel, vehicle fueling or maintenance would be conducted within 100 feet of water bodies. An Erosion and Sediment Control Plan (ESCP) will be developed during design, which will address what specific BMPs will be used on this project. The ESCP will focus first on efforts to prevent the movement of sediments and silts.
Hazardous Materials and Spills	 WFLHD contract specifications will require the contractor to prepare and implement a SPCC Plan during construction. If unexpected contamination is encountered during construction, all work in the contaminated area would be halted and the CO contacted immediately. All contaminated material will be handled and disposed of in accordance with ADEC regulations.
Social and Community	• KPB regularly post construction schedules and information on the agency website.

10. Permits and Approvals

Required permits and approvals would be obtained prior to construction. The following permits and approvals are expected to be required for implementation of the Build Alternative:

- NEPA approval
- Alaska Office of History and Archaeology National Historic Preservation Act and Section 106 concurrence, File 2017-00792 September 25, 2017
- US Army Corps of Engineers Clean Water Act Section 404 revised and reissued Permit POA-2015-460-M1 October 5, 2017
- Alaska Department of Fish & Game, Permits FH 16-V-0247, 16-V-0248, 16-V-0249, 16-V-0250; issued June 29, 2016
- Kenai Peninsula Borough River Habitat Protection District Permit #11145, issued November 6, 2017
- US Fish & Wildlife Service [Incidental] Eagle Take Permit MB56715B-1, issued July 5, 2016

- Alaska Department of Environmental Conservation 401 Water Quality Certification, issued April 13, 2015
- Alaska Department of Environmental Conservation APDES permit issued April 13, 2015

11. Contact Information

For additional information concerning this decision, contact Steve Morrow, Environmental Protection Specialist, Western Federal Lands Highway Division, Federal Highway Administration, 610 E. Fifth Street Vancouver, WA 98661, (360) 619-7512, <u>stephen.morrow@dot.gov</u>.

12. Conclusion

Pursuant to NEPA of 1969, WFLHD in partnership with Kenai Peninsula Borough has assessed the environmental impacts of the proposed project. This environmental assessment was prepared in accordance with the Council on Environmental Quality NEPA Regulations set forth in 40 CFR parts 1500 to 1508 and FHWA regulations contained in 23 CFR part 771. The proposed project conforms to all applicable federal statutes and executive orders.

WFLHD finds the Final EA and related documentation adequately and accurately address the need, environmental issues, and impacts of the proposed action, and contains appropriate mitigation measures. Furthermore, in accordance with guidelines for determining the significance of proposed federal actions (40 CFR 1508.27), WFLHD finds that the Final EA, including the information listed above, documents full compliance with NEPA and other related environmental laws, executive orders, and implementing regulations. The Final EA with the supplemental information in this FONSI provides sufficient evidence and analyses for determining that the proposed project will have no significant impact on the environment and that an Environmental Impact Statement is not required by Section 102(2) of NEPA or its implementing regulations. The WFLHD takes full responsibility for the accuracy, scope, and content of the attached Final EA.

RECOMMENDED BY:

Steve Morrow, Environmental Protection Specialist

May 4, 2018 Date

CONCURRED BY:

Scott Smithline, Environmental Manager

APPROVED BY:

Ed Hammontree, Chief of Engineering Western Federal Lands Highway Division

Date

Date

Finding of No Significant Impact Kenai Spur Highway Extension AK KENAI 2016(1)

Appendix A

Finding of No Significant Impact Kenai Spur Highway Extension AK KENAI 2016(1)

Morrow, Stephen (FHWA)

From:Knackstedt, Henry <HKnackstedt@kpb.us>Sent:Monday, February 05, 2018 9:18 AMTo:Morrow, Stephen (FHWA)Subject:FW: North Road Extension

Steve

I am not sure if you process comments like the one below, but here it is.

Henry

-----Original Message-----From: Road Service Area Sent: Monday, February 05, 2018 8:11 AM To: 'Karen McGahan' Subject: RE: North Road Extension

Karen,

We appreciate you contacting us and we will forward your message on to our director and project engineer. Also please note that after the meeting the recording and minutes will be uploaded to our KPB Roads Dept web page at: http://www.kpb.us/rds-service-area/north-road-extension-project This is a great resource web page for all updates on this particular project. Thank you. Lori Johnson KPB/RSA Admin Assistant 262-4427

-----Original Message-----From: Karen McGahan [mailto:boulderpoint@icloud.com] Sent: Saturday, February 03, 2018 10:42 AM To: Road Service Area <Roads@kpb.us> Subject: North Road Extension

We will be out of town and unable to attend the Feb. 8th meeting. But we are definitely in favor of this long awaited for project! Karen and Richard McGahan Mile 29.3 Nikiski

252-1134

Sent from my iPhone

To: Steve Morrow Western Federal Lands Highway Federal Highway Administration 610 E. Fifth Street Vancouver, Washington 98661

From: Peter McKay 55441 Chinook Rd Kenai, AK 99611

Date: 02/10/2018

Subject: Kenai Spur Highway Extension Environmental Assessment - AK KENAI 2016(1)

Mr. Morrow,

I would like to offer my public comments on the Environmental Assessment for the Kenai Spur Highway Extension (KSHE) Project.

I am very much in favor of the proposed extension of the Kenai Spur Highway KSH.

I support the full 8.1 mile, single-lane gravel road extending to a turnaround just beyond the existing crossing of Otter Creek.

These two reasons are the primary reasons that I support the project.

- 1. The project will provide a stable, year-round traveling surface for residents of Gray Cliff and Moose Point Subdivision and recreationalists going beyond to Kenai NWR.
- 2. Implementation of this project will restrict off-tracking by off-road vehicles and rectify on-going environmental degradation and an on-going source of sedimentation and pollution into Leif Creek which discharges into Cook Inlet.

I am a property owner in the Moose Point subdivision. I am an advocate for improved access to my property. Fish and wildlife habitat is currently threatened and the destruction will continue in the "No Action Alternative". I think this is unacceptable.

My only concern is that the proposed 8.1 mile road will be built to cross Otter Creek – and there it will stall for many years. I hope the Borough and FHA will start planning the next NRE to further improve access to our Moose Point property.

Respectfully,

Peter E McKay 55441 Chinook Rd Kenai, AK. 99611

Comments on Kenai Spur Highway Extension Environmental Assessment AK Kenai 2016(1)

Steve Morrow Western Federal Lands Highway Federal Highway Administration 610 E. Fifth Street Vancouver, Washington 98661

stephen.morrow@dot.gov

February 15, 2018

Dear Sir:

You are aware that the EA serves to evaluate the significance of a proposal for agency actions and therefore hopefully focuses on the context and intensity of effects that may "significantly" affect the quality of the human environment. No one can dispute that the Borough has an obligation to provide access to more than 700 (residential) lots. By reducing the acreage of wetland impact as well as "recharacterizing" the purpose of the road, your agency has effectively re-balanced the weight given to the various review categories (i.e. environmental discipline and/or environmental resource). The section on design changes from the original USACE was useful and frankly does indicate that some thought has been given to wetland protection.

Nevertheless, where a road is built in wetlands, there will be environmental degradation. Reviewing just this one project, <u>without the context</u> of the other projects, such as Jacob's Ladder and the remaining four (?) bridges, requires that we all talk to each other and ignore the elephant in the room. The project in fact will open up access to all 26 miles of the ROW traveling through the subdivisions of Gray Cliff and Moose Point. Taking the project in context of the surrounding (approx.) 700 lots AND Cook Inlet and the Kenai NMR, there are issues which must be articulated.

Concern No. 1: That insufficient planning has been done to provide the necessary maintenance to sustain the usefulness of this project long term.

Page 10 and page 40 of the EA reference road "maintenance". While KPB has been collecting taxes from all landowners along this ROW since it was subdivided and sold, KPB has not provided road service. Instead, our taxes have gone into a "general fund" and used to maintain existing roads. Theoretically, we should not have a tax increase for another twenty years, since we paid taxes for nothing, while all other landowners in RSA Unit N-5 should pay increased road service taxes to pay us back. This will never happen. To the best of my knowledge, the N-5 RSA does not have increased monies to maintain this road. <u>The EA even informs us that no evaluation has been performed to estimate the maintenance cost of this road</u>. This is an EA flaw as it ignores the cumulative impact of minimal "maintenance" when a road is built. The EA wants to side step the problem by stating that it is a "maintenance" issue not a design and construction problem.

Concern No. 2: That the mitigation measures for Wetland degradation and Fish, Wildlife and Vegetation are not broad enough to address the increased Land Use, which is recognized on p. 14, 15 Section 4.2.

A. If the road is built to Otter Creek.

The EA minimizes the cumulative impacts of opening up the area to landowner access. The EA proposal reaches to Otter Creek and indicates thought was given to reducing wetland impact at the bridge by moving the parking area up the hill, north of the bridge. However, the proposal ignores that as the "end of the road", there will be many vehicles parked there. With water catchment systems, solar power and Wi-Fi, the people coming to Gray Cliffs and beyond are way ahead of the planning processes of government. The EA references that possibly development "could occur sooner and that the build alternative may facilitate a slightly increased rate of development" (paraphrase). I propose that this vastly underestimates the pace of development that will occur if the road is built to Otter Creek. I think this portion of the plan is unrealistic. Rural living is rarely "remote" any more. Within the past year, five new folks have moved in within half mile of me. There are now at least six children growing

up on the road corridor, sharing home schooling and play dates. Those families that live there only during summer may choose to live there year round. Acreage is cheap compared to land in the US.

At some point, heavy equipment is required on site for every residence built. Tractors, backhoes, front-end loaders, dump trucks, excavators, bulldozers, whatever, will be driven down the road. The road, and the minimized approach to maintenance as stated in the EA will not endure under the proposed mitigation measures. (See p. 30, Wetlands, Fish, Wildlife and Vegetation.)

B. If the funds run out and the road is short of Otter Creek.

The EA recognizes that it is possible the project will run out of money prior to completing the road to Otter Creek. *It would seem that this possibility would be addressed under every category of "environmental resource/discipline" as separate from the No Action Alternative, but it is not.* There will be a cumulative impact on the environment, and the entire length of the ROW which results from any road extension. This will occur because of the upgrade to Jacob's Ladder, funded separately. Under 1508.7, this EA has the option to address mitigation tactics if the road is stopped "somewhere". It could propose mitigation for the mess discussed under the No Action Alternatives to Wetlands (p.ES4) and Fish, Wildlife, and Vegetation (p. ES 5). It does not.

Discussion:

This EA states that it does address project area direct impacts. At the public meeting, February 8, 2018, the speakers repeatedly refocused questions about the cumulative impacts to the scope of construction and design. (There was an attitude of "one step at a time" while recognizing that yup, build it and they will come. See last paragraph page 9.) However, I do not believe that the EA can ignore cumulative impacts as they are understood under 40 Code of Federal Regulations [CFR] 1508.7.

It appears the EA attempts to distinguish "indirect impacts" from cumulative impacts. Page 9, bottom recognizes that the project could generate long tem changes "because it is increasing roadway capacity and providing improved access to previously less accessible areas". It then goes on to state the mitigation language of 1508.7, p.10, but does not resolve the long term, clearly anticipated environmental degradation caused by increased use of heavy equipment and regular use of 700 plus landowners (p. 9) with anticipated cumulative impacts.

Page 10 states that CEQ mitigation measures can include: minimize impacts by limiting the degree or magnitude of the action *and its implementation*. The federal statute allows additional mitigation than that proposed by this EA.

It states that CEQ mitigation measures can include: Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action. *The federal statute allows the EA to reach maintenance over the life of the road.* The lack of a concrete maintenance plan is discussed in Concern No. 1 above.

As written, the EA fails to reconcile the opportunities for long term mitigation by minimizing the cumulative impacts. Such things as closing the road to heavy equipment from April 15 through November 1, requiring a road permit for vehicles over so much weight under a system that limits the number of users, facilitating cooperative use of heavy equipment so that neighbors can schedule its use concurrently to reduce road trips, (facebook has its uses), and implementing those practices used by federal land managers when protecting remote and wilderness areas are options which this EA ignores.

As written, the EA does not propose mitigation measures for those long term impacts it will generate if the project stops short of Otter Creek. It outlines the degradation (as discussed above), it ought to discuss the mitigation.

Concern No. 3. - "BMP"s do not reach waste construction materials and human rubble left on site *after* project is completed or incorrect field decisions because there is no onsite oversight.

It is notable that the EA does not recognize the violation incurred when the bridge north of Otter Creek was built over the wrong stream. Page 10, it writes as a mitigation measure: In addition to Leif's Creek and Otter Creek, two other unnamed streams support anadromous sigh and 4 other streams

support resident fish. Folks, the tertiary stream north of me does not support any fish. None, nada. Then, why is there a bridge there? KPB responds that they are not responsible for it. There, Mr. Morrow, lies the problem. How can they not have some authority, since it is on Borough land?

The project scope is very narrow and it does not appear that your office will have oversight of construction or issues with Jacob's Ladder work or placement of the bridges north of Otter Creek. Already a bridge has been constructed outside the scope of this project <u>on the Borough right of way</u>, in the wrong location. That means that a bridge intended for Besser Creek is now sitting over a tertiary stream, with no fish. Within walking distance of my place, I regularly observed the shortcuts and blatant disregard for environmental concerns displayed by the field workers. To this day, I walk to the site and continue to clean up junk left behind. I do not see any revegetation using locally native plants. More importantly, the access and egress to the bridge was never completed so we are jumping it using 4 X 8 plywood. Placement of the bridge has increased environmental degradation to the area, not contained it.

The conclusion from this is that field workers are meant to be self regulating but that construction crews do not know BMP for working in fragile remote sites. (They drove trucks in there during breakup and got stuck in the swamp. That means a truck with gas and oil in it sat in the swamp for months, until the next freeze up so it could be driven out. They created ruts two feet deep in the bog.) This is not tenable. There must be *meaningful* project oversight. It is unlikely the federal government has budgeted many dollars for onsite visits to assure compliance. Certainly, nobody from KPB wants to travel out there during their work day. KPB is very "small" and people want to like each other. Nobody wants to police a contractor or construction worker. Even when stating what I had seen to one KPB employee, the comment was that it did not sound like the company the person knew. Well, sorry, they made a mistake and they left a mess.

While KPB is to be commended for creativity and large effort in cobbling together funding sources to get the job done, the lack of cohesive oversight confuses the public and frustrates me. If this project is to have minimum impact, because of its remote location, the oversight agency should designate and *clearly publish* to the public ONE NAME and contact information so that locals can report in a timely manner concerns and violations.

In sum, if an EA is to evaluate the so called intensity AND context of effects that significantly affect human environment, this document falls short in evaluating the breadth and scope of cumulative impacts and proposing valuable mitigation. The lack of a maintenance plan, the lack of project onsite oversight, the minimum focus on long term heavy road traffic, the lack of attention to a real possibility the road will fall short of Otter Creek all feed into my large concern that the cumulative impacts of this road will be substantial. I think that FHA has broader authority to develop and implement additional mitigation which would balance the scales a bit more in favor of long term sustainability for this road and its surrounding environs.

Sincerely,

Carmen Denny, Landowner

Morrow, Stephen (FHWA)

From:Kristine Schmidt <kristine@molloyschmidt.com>Sent:Thursday, February 15, 2018 6:07 PMTo:Morrow, Stephen (FHWA)Subject:North Road Extension Project

Mr. Morrow:

Our firm represents the partnership which owns Lot 33 in Gray Cliffs Subdivision, which is directly in the path of the proposed road extension.

Our client objects to any right of way clearing plan that involves clearing the entire right of way on their property of vegetation, as such clearing will have a major impact on Lot 33, and damage the property and its value. They expect the tree clearing to be minimal, to protect their property, and to save money that could be used for other parts of this project.

Furthermore, they object to any Borough proposal to allow the public to take these trees. What is the authority for the Borough to do that?

I attended the meeting in Nikiski regarding this project on February 8. I have found getting up to speed on this project to be difficult, as the Borough and your agency have made it difficult to get information without having to do a lot of searching around on the Internet. In other words, very user-unfriendly. For example, I did not see a copy of the environmental assessment as a handout; nor were there copies of the maps and plans of the proposal. Or, if there were copies, there weren't enough because there were no copies available by the time I arrived at the meeting, a few minutes after it started.

Kristine A. Schmidt

Kristine Schmidt, Attorney at Law Molloy Schmidt LLC 110 S. Willow St., Ste. 101 Kenai, Alaska 99611 (907) 283-7373 • 907-283-2835 fax kristine@molloyschmidt.com

Appendix B

Finding of No Significant Impact Kenai Spur Highway Extension AK KENAI 2016(1)

Comment Number	Category	Commentor	Comment	Response	Where Incorporated in the EA
1a	Public	Karen and Richard McGahan	We will be out of town and unable to attend the Feb. 8th meeting. But we are definitely in favor of this long awaited for project!	We appreciate you contacting us and we will forward your message on to our director and project engineer. Also please note that after the meeting the recording and minutes will be uploaded to our KPB Roads Dept web page at: http://www.kpb.us/rds-	N/A
2a	Public	Peter McKay	I support the full 8.1 mile, single-lane gravel road extending to a turnaround just beyond the existing crossing of Otter Creek.	service-area/north-road-extension-project Thank you for your comment. please note that after the meeting the recording and minutes will be uploaded to our KPB Roads Dept web page at: http://www.kpb.us/rds-	N/A
2b	Public		My only concern is that the proposed 8.1 mile road will be built to cross Otter Creek – and there it will stall for many years. I hope the Borough and FHA will strapperty	service-area/north-road-extension-project. The State of Alaska Surface Transportation Improvement Program (STIP) is the State's four-year program for transportation system preservation and development. The 2016 2019 STIP has no projects identified beyond the current end point at Otter Creek. The funding for this 8.1 mile actencion was the result of a congressional earmer from	N/A
3a	Public	Carmen Denny	Reviewing just this one project, without the context of the other projects, such as Jacob's Ladder and the remaining four (?) bridges, requires that we all talk to each other and ignore the elephant in the room.	Under the National Environmental Policy Act (NEPA) environmental analysis must be conducted for any project that involves federal funding, work performed by the federal government, or permits issued by a federal agency. Jacobs Ladder Trail is a standalone project which does not have Federal funding and is not work performed by the Federal government. The US Army Corps of Engineers evaluated the Jacob's Ladder project as part of their NEPA analysis under the Clean Water Act Section 404 permit.	Page 3 Section 1.3 has updated text, "Under the National Environmental Policy Act (NEPA) environmental analysis must be conducted for any project that involves federal funding, work performed by the federal government, or permits issued by a federal agency. Jacobs Ladder Trail does not have Federal funding and is not work performed by the Federal government." Additionally, Page 4 Section 1.3 on "Design Additions from the Original USACE Submittal" clarifies the Jacobs Ladder is not part of this EA analysis, except for evaluation under indirect and cumulative impacts.
3b			insufficient planning has been done to provide the necessary maintenance to sustain the usefulness of this project long term. The EA even informs us that no evaluation has been performed to estimate the maintenance cost of this road. This is an EA flaw as it ignores the cumulative impact of minimal "maintenance" when a road is built. The EA wants to side step the problem by stating that it is a "maintenance" issue not a design and construction problem.	The KPB Road Service area currently maintains 645 miles of roads throughout the Borough, in five regions, managed by four road inspectors. Maintenance of KPB roads is funded primarily through a mill rate of 1.4, and the FV17 estimated annual total cost per road mile was \$9,582, with total expenditures and operating transfers of \$7,763,632. Roads recently added to maintenance have been between one and three miles per year, so the addition of 8.1 miles is more than average, but can be absorbed into the overall budget. The agreement between the KPB and WFL, signed by the Mayor provides that the Kenai Spur Road Extension will be maintained by the KPB once the road is accepted. Sufficient resources and funding is in place to provide the necessary maintenance for the project.	Page 7 Section 3.1 has updated text, "Upon completion of construction of the road extension that meets the KPB Road Construction Standards the road will be accepted into the KPB Road Service Area (RSA) for maintenance."
3c			The mitigation measures for Wetland degradation and Fish, Wildlife and Vegetation are not broad enough to address the increased Land Use, which is recognized on p. 14, 15 Section 4.2.	The mitigation measures in the EA are sufficient to address land use impacts because a significant increase in property development is not expected to occur as a result of the KSH spur extension project. Residential development in the project area is limited to the platted Gray Cliff and Moose Point subdivisions. Development must be in compliance with the 2005 Kenai Peninsula Borough Comprehensive Plan. Increase in the rate of land development is a possibility but not a foregone conclusion. Other factors, such as no utilities (no electricity, no water, no sewer) will limit the rate and extent of land development between Gray Cliff and Moose Point subdivisions. For example, a similar development east of Ninichik (Caribou Hills) platted in the 1960's had the road graveled from mile post 11 to mile post 18 in the 1960's. A review of the Kenai Peninsula Borough GIS website: http://maps.kpb.us/kpbmapviewer/indicates in the location of the proposed road extension, from the Captain Cook Recreation Area boundary 8.1 miles to Otter Creek there are approximately 58 vacant lots that immediately abut the proposed road extension and there are 29 lots that abut the proposed extension with some level of development. A review of the KPB GIS of the Caribou Hills development on the lot. If the presumption is improved access as a result of a graveled road would result in increased development over the last 50 years, the Caribou Hills development should have a much higher percentage of developed properties than what it does presently.	N/A
3d			The EA minimizes the cumulative impacts of opening up the area to landowner access. The EA proposal reaches to Otter Creek and indicates thought was given to reducing wetland impact at the bridge by moving the parking area up the hill, north of the bridge. However, the proposal ignores that as the "end of the road", there will be many vehicles parked there. With water catchment systems, solar power and Wi-Fi, the people coming to Gray Cliffs and beyond are way ahead of the planning processes of government. The EA references that possibly development "could occur sooner and that the build alternative may facilitate a slightly increased rate of development" (paraphrase). I propose that this vastly underestimates the pace of development that will occur if the road is built to Otter Creek.	RE: the concern of vehicles parked at the "end of the road". Within the KSH extension there will be three 80-foot by 100-foot turn-arounds to accomadate parking, as well as the existing 14,000 ft ² turnaround/parking area at the current project start (presently the road terminus). These three turn-arounds will be located just beyond the intersection with Jacobs's Ladder (station 224+00), just before the intersection with Larkspur Loop (station 358+00) and at the terminus of the KSH extension beyond the Otter Creek crossing (station 433+25). RE: the concern, "the EA vastly underestimates the pace of development that will occur if the road is built to Otter Creek". Residential development in the project area is limited to the platted Gray Cliff and Moose Point subdivisions. Development must be in compliance with the 2005 Kenai Peninsula Borough Comprehensive Plan. Increase in the rate of land development is a possibility, but not a foregone conclusion. Other factors, such as no utilities (no electricity, no water, no sever) will limit the rate and extent of land development between Gray Cliff and Moose Point subdivisions. Individuals choosing to use alternative sources of water and power for their residential lots could be implemented today whether the KSH extension is built or not built. If the presumption is improved access as a result of a graveled road would result in increased development over the last 50 years, the Caribou Hills development east of Ninilchik should have a much higher percentage of developed properties than what it does presently.	Page 7 Section 3.1 has updated text, "Within the KSH extension there will be three 80-foot by 100- foot turn-arounds. These turn-arounds will be located just beyond the intersection with Jacobs's Ladder (station 224+00), just before the intersection with Larkspur Loop (station 358+00) and at the terminus of the KSH extension beyond the Otter Creek crossing (station 433+25)." Page 14 Section 4.2.2.2.3. Cumulative Impacts has the updated text, "Residential development in the project area is limited to the platted Gray Cliff and Moose Point subdivisions. Development must be in compliance with the 2005 Kenai Peninsula Borough Comprehensive Plan. Increase in the rate of land development is a possibility, but not a foregone conclusion. Other factors, such as no utilities (there is no electricity, no municipal water, no sewer system serving Grey Cliff and Moose Point subdivisions) will limit the rate and extent of land development."
Зе			The EA recognizes that it is possible the project will run out of money prior to completing the road to Otter Creek. It would seem that this possibility would be addressed under every category of "environmental resource/discipline" as separate from the No Action Alternative, but it is not. There will be a cumulative impact on the environment, and the entire length of the ROW which results from any road extension. This will occur because of the upgrade to Jacob's Ladder, funded separately. Under 1508.7, this EA has the option to address mitigation tactics if the road is stopped "somewhere".	Based on the most up-to-date engineer's estimate there are adequate funds for construction of an 8.1 mile single lane gravel road extending to a turnaround just beyond the existing crossing of Otter Creek.	Page 7 Section 3.1 KPB Preferred Alternative the text, "The funding amount for the project is fixed, in the event the level of funding is not sufficiten for construction of the entire project, the total project length could be reduced." Has been removed.
3f			It appears the EA attempts to distinguish "indirect impacts" from cumulative impacts. Page 9, bottom recognizes that the project could generate long term changes "because it is increasing roadway capacity and providing improved access to previously less accessible areas". It then goes on to state the mitigation language of 1508.7, p.10, but does not resolve the long term, clearly anticipated environmental degradation caused by increased use of heavy equipment and regular use of 700 plus landowners (p. 9) with anticipated cumulative impacts.	The road design exceeds the applicable design standards; KPB Road Service Area standards for Category II Engineer Designed roads, with an approved exception for lesser width. It also meets the AASHTO Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT <400), 2001 & will be a USFS Level 4 road. Standard design requirements are to support truck & bus loading, not just standard vehicular traffic. Import materials required for construction are non-frost susceptible, to limit degradation of the embankment during freeze-thaw cycles. The Kenai Peninsula Borough has the ability to enforce seasonal weight restrictions. The Kenai Peninsula Borough annually post seasonal area-wide weight restrictions on Borough maintained roads. Regular gravel road maintenance; grading, minor gravel improvements, drainage repairs, etc. should be anticipated.	Page 8 below Figure 4 the statement, "road design exceeds the applicable design standards; KPB Road Service Area standards for Category II Engineer Designed roads, with an approved exception for lesser width."
3g			As written, the EA fails to reconcile the opportunities for long term mitigation by minimizing the cumulative impacts. Such things as closing the road to heavy equipment from April 15 through November 1, requiring a road permit for vehicles over so much weight under a system that limits the number of users, facilitating cooperative use of heavy equipment so that neighbors can schedule its use concurrently to reduce road trips, (facebook has its uses), and implementing those practices used by federal land managers when protecting remote and wilderness areas are options which this EA ignores.	The Kenai Peninsula Borough has the ability to enforce seasonal weight restrictions. The Kenai Peninsula Borough annually post seasonal area-wide weight restrictions on Borough maintained roads. • Pursuant to Kenai Peninsula Borough Code of Ordinances 14.40.035(D) No person shall construct, install or place objects in a right-of-way without an encroachment permit. • Pursuant to Kenai Peninsula Borough Code of Ordinances 14.40.070(C) persons or entities using the right-of-way in a manner causing damage are liable to the Borough for the cost of repair and subject to a fine.	Page 7 Section 3.1 KPB Preferred Alternative has included the text, "Upon completion of construction of the road extension that meets the KPB Road Construction Standards the road will be accepted into the KPB Road Service Area (RSA) for maintenance."
3n			As written, the EA does not propose mitigation measures for those long term impacts it will generate if the project stops short of Otter Creek. It outlines the degradation (as discussed above), it ought to discuss the mitigation.	Based on the most up-to-date engineer's estimate there are adequate funds for construction of an 8.1 mile single lane gravel road extending to a turnaround just beyond the existing crossing of Otter Creek.	rage / Section 3.1 KPB Preterred Alternative the text, "The funding amount for the project is fixed, in the event the level of funding is not sufficient for construction of the entire project, the total project length could be reduced." Has been removed.
31			"BMP"s do not reach waste construction materials and human rubble left on site after project is completed or incorrect field decisions because there is no onsite oversight.	The construction plans and contract specifications clearly identify the limits of work the contractor may conduct under the contract to construct the project. The contract specifications follow the State of Alaska Department of Transportation and Public Facilities Standard Specifications for Highway Construction 2017 and cover all aspects of construction, including onsite waste management and erosion control. The construction contract will require the contractor prepare and implement a Stormwater and Pollution Prevention Plan (SWPPP). The SWPPP will identify and implement practices to prevent pollutants from making their way into stormwater runoff. Construction waste and human rubble is not allowed in the public Right-of- Way (ROW). Solid Waste code enforcement is regulated under Borough Code of Ordinances 10.04.	N/A

3j			The project scope is very narrow and it does not appear that your office will have oversight of construction or issues with Jacob's Ladder work or placement of the bridges north of Otter Creek. Already a bridge has been constructed outside the scope of this project on the Borough right of way, in the wrong location.	Under the National Environmental Policy Act (NEPA) environmental analysis must be conducted for any project that involves federal funding, work performed by the federal government, or permits issued by a federal agency. Jacobs Ladder Trail does not have Federal funding and is not work performed by the Federal government. NEPA Analysis of the Jacobs Ladder Trail Improvement occured as part of the US Army Corps of Engineers in the issuance of the Clean Water Act Section 404 permit. Our understanding of the two bridges previously installed was by the Kenai Watershed Forum (KWF), a 501(c)3 non-profit organization formed to protect, maintain, and restore fish habitat in the watershed. Through grants KWF implement restoration and enhancement projects and conducts these projects independent of the KPB. In communication with the KWF, one more bridge crossing has been identified, but there is not funding to install the bridge. Should funding ever become available a bridge would be installed to cross Seven Eggs Creek. Seven Eggs Creek is north of the terminus of the KSH extension.	Page 29 Section 7 Cumulative or Interrelated Impacts has updated text noting the construction of the Jacobs Ladder Trail concurrent to the KSH spur extension. Other potential future actions identified the KWF installing a bridge over Seven Eggs Creek, should funding be obtained.
4a	FHWA	Tara Walter	there are five 25 foot turnouts in the plan sheets where the EA only provided for 10 foot turnouts.	There are (5) twenty-five foot wide turnouts, and (16) ten-foot wide turnouts. There are also three 8,00 ft ² turn-arounds in the project. The 10-foot turnouts are mentioned on Page 3 and 7 of the Draft EA and appears to need minor modifications to include the twenty-five foot wide turnouts and the three turn-arounds.	Page 3, Section 1.3 and Page 7 Section 3.1 have the updated text, "The extension will be an 18- foot wide driving surface with sixteen 10-foot wide turnouts and five 25-foot wide turnouts. These turnouts will be located where subdivision road approaches at platted ROWs, at specified locations not to exceed every 2000 LF, or where hilly terrain and limited site distance are prevalent to assist transportation and safety. Within the KSH extension there will be three 80- foot by 100-foot turn-arounds. These turn- arounds will be located just beyond the intersection with Jacobs's Ladder (station 224+00), just before the intersection with Larkspur Loop (station 358+00) and at the terminus of the KSH extension beyond the Otter Creek crossing (station 433+25)."
5a	Public	Kristine Schmidt, Attorney at Law	Our client objects to any right of way clearing plan that involves clearing the entire right of way on their property of vegetation, as such clearing will have a major impact on Lot 33, and damage the property and its value.	The project is completely contained within the ROW dedication, and no clearing or other work is allowed on private property. The KPB owns the trees located within the ROW dedication. Clearing is centered on the road, and minimized at up to 50-foot wide in uplands and 40-foot wide in wetlands.	N/A
5b	Public		Our client objects to any Borough proposal to allow the public to take these trees. What is the authority for the Borough to do that?	The KPB owns the trees located within the ROW dedication. The Contractor is responsible for removal of the cleared materials, which could involve, per the terms of the construction contract with KPB, sale of harvestable timber, with appropriate credit to KPB, or providing it for public use. If the timber is provided for public use, the contractor would be responsible for disposal of any material not taken by the public.	N/A
5c	Public		I attended the meeting in Nikiski regarding this project on February 8. I have found getting up to speed on this project to be difficult, as the Borough and your agency have made it difficult to get information without having to do a lot of searching around on the Internet. In other words, very user-unfriendly.	During the February 8 public meeting provided on the display table was a full set of the design drawings, enlarged detail sheets and a copy of the EA. A public notice was posted in the Peninsula Clarion as well as during the public meeting the website address where the public could review the EA and post comments.	N/A

Appendix C

Finding of No Significant Impact Kenai Spur Highway Extension AK KENAI 2016(1)



Federal Highway Administration U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION WESTERN FEDERAL LANDS HIGHWAY DIVISION 610 East Fifth Street Vancouver, Washington 98661

Kenai Spur Highway Extension Kenai Peninsula Borough Environmental Assessment

AK KENAI 2016(1)



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Kenai Spur Highway Extension Kenai Peninsula Borough Environmental Assessment

AK KENAI 2016(1)

Submitted Pursuant to Public Law 91-190 National Environmental Policy Act

U.S. Department of Transportation Federal Highway Administration Western Federal Lands Highway Division

Date Approved

⁷Ed Hammontree Chief of Engineering Federal Highway Administration Western Federal Lands Highway Division

The following people may be contacted for more information:

Kristin Austin, Lead Coordinator Planning Western Federal Lands Highway Division Federal Highway Administration 610 East Fifth Street Vancouver, Washington 98661 Steve Morrow, Environmental Protection Specialist Western Federal Lands Highway Division Federal Highway Administration 610 East Fifth Street Vancouver, Washington 98661

May 2018

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Executive Summary

The Western Federal Lands Highway Division (WFLHD) of the Federal Highway Administration (FHWA) has prepared this environmental assessment (EA) in accordance with the National Environmental Policy Act (NEPA). This EA discloses the environmental consequences of the Proposed Action and a No Action alternative. This EA also provides sufficient evidence to determine whether an environmental impact statement (EIS) will be prepared or whether a finding of no significant impact is appropriate. The Kenai Peninsula Borough (KPB) propose to construct north of Nikiski, Alaska an 8.1-mile road extension that would continue from the end of the Spur Highway from Captain Cook State Recreation Area to Otter Creek in the Gray Cliff subdivision (see location map, Figure 1). The project will reduce the impacts to wetlands and aquatic habitat, currently created by off-road vehicles traversing to the private properties. In 1998 through a Congressional action (H.R. 2400 The Transportation Equity Act of the 21st Century), the federal government appropriated approximately \$6,000,000 to be used by KPB as a Federal-aid grant to construct an extension of the Kenai Spur Highway (KSH). A part of the funding was used for preliminary design and NEPA scoping by KPB in 2005. In 2014 a private enterprise for oil and gas exploration proposed to construct a similar road improvement. The private firm, Apache Corporation ceased operations in the state of Alaska, and agreed to donate to KPB the preliminary engineering and environmental work undertaken to that point. KPB is contributing that donated work to the project as part of the required matching contribution of 20% of the Federal grant funds. WFLHD is working with the KPB in a Stewardship and Oversight (S&O) role to ensure KPB delivers the project in accordance with Title 23 requirements and other applicable federal laws.



Kenai Spur Highway Extension Environmental Assessment

Environmental Resource	No Action Alternative	Build (Selected) Alternative Direct Impacts	Build (Selected) Alternative Indirect Impacts	Build (Selected) Alternative Cumulative Impacts
Transportation and Access	Continued access difficulties, access limited to ORVs/ATVs and foot travel.	ConstructionPotential of temporary delays to residents of Gray Cliff & Moose Point, trucks hauling material unlikely to travel through NikiskiOperationProvide all season access to KPB platted subdivisions and recreation areas.Road conditions would improve and remain in an improved state over current condition as KPB assumes maintenance responsibility.	Increased long- term reliability of road. Traffic use would likely increase over time because of improved access that would allow automobile use. Improved access and road reliability could facilitate private roads or driveways constructed to connect undeveloped property to the to the KSH extension.	Combined with past, present, and reasonably foreseeable future actions, the Build Alternative would not be expected to significantly contribute to cumulative effects to transportation and traffic.
Land Use	No change to land use	<u>Construction</u> No impact <u>Operation</u> No impact. Work would occur within the existing KPB dedicated ROW.	No major change to land use, the existing developable land was platted by KPB in 1980's. The Build Alternative would improve access to platted lots which could facilitate a slightly increased rate of development.	Combined with past, present and reasonably foreseeable future actions, the Build Alternative would not be expected to significantly contribute to cumulative effects for land use.

Table 1. Summary of Impacts - Build Alternative

Environmental Resource Recreation	No Action Alternative Continued access difficulties to recreation areas and activities	Build (Selected) Alternative Direct Impacts <u>Construction</u> Temporary, minor	Build (Selected) Alternative Indirect Impacts Increased road reliability and	Build (Selected) Alternative Cumulative Impacts No impact
		decrease in recreational use due to construction traffic controls <u>Operation</u> Improved access to Kenai National Wildlife Refuge for recreational use	safety for recreationists could encourage increased recreation opportunities	
Wetlands	Continued on-going degradation and sedimentation of existing wetlands and streams caused by ORV/ATV traffic off- tracking and taking multiple routes to successfully traverse through to reach private properties in Gray Cliff and Moose Point subdivisions	Construction Potential temporary impacts outside the construction zone. Mitigated through implementation of Best Management Practices (BMPs). Permanent impact to 14.0 acres of wetlands. Despite the permanent loss of wetlands to build the road, the overall impact to wetlands will likely be beneficial because it will provide travelers a solid crossing through these areas and ease the ongoing resource damage from the avoidance of new trails that are currently being created.	No impact	Improved access to platted lots could facilitate increased rate of wetland fills from construction of private roads or driveways constructed to connect undeveloped property to the KSE. Combined with past, present and reasonably foreseeable future actions, the Build Alternative would not be expected to significantly contribute to cumulative effects for wetlands.
Floodplains	No mapped floodplains in the project area.	Construction No impact	No impact	No impact

Environmental Resource	No Action Alternative	Build (Selected) Alternative Direct Impacts	Build (Selected) Alternative Indirect Impacts	Build (Selected) Alternative Cumulative Impacts
		Operation No impact		
Fish, Wildlife & Vegetation	Ongoing temporary disturbances to wildlife species. An invasive species, reed canary grass, has been introduced in the area, continued disturbance in wetlands will allow this invasive to become distributed through the corridor Anadromous and local rearing streams are being crossed in an expanding footprint by off road vehicles causing loss of fish habitat and impacts downstream. Potential removal of riparian plants, mature forest, or early and mid-successional forest due to regular maintenance of the 100' ROW.	ConstructionConstruction would temporarily disrupt wildlife populationsTemporary loss of habitat due to construction-related clearing; disturbed areas would be re- vegetated to re- establish habitat value in the long runOperationImproved road surface conditions would allow for increased traffic speeds, increasing risk of wildlife collisions.	Potentially improved mobility of amphibians in streams through the aquatic organism passage culverts that cross under the proposed KSE. Removal and replanting of wetland vegetation in the construction zone allows the reestablishment of native vegetation outside the road prism as off- tracking by ORVs/ATVs is eliminated.	Improved access to platted lots could facilitate increased rate of development and vegetation removal of these private lots adjacent to the KSE. Combined with past, present and reasonably foreseeable future actions, the Build Alternative would not be expected to significantly contribute to cumulative effects for fish, wildlife and vegetation.
Cultural and Historic Resources	No change	No impact	No impact	No impact
Soils and Geology	No change	ConstructionMinimal impact during construction until vegetation is established.OperationImproved road surface conditions would reduce impacts related to current use by off road vehicles	No impact	No impact

Environmental Resource	No Action Alternative	Build (Selected) Alternative Direct Impacts	Build (Selected) Alternative Indirect Impacts	Build (Selected) Alternative Cumulative Impacts
		within the project area.		
Noise	No change	Construction Temporary increased noise levels would occur at closest sensitive receptors but would be below levels outside the project area Operation Noise levels are anticipated to increase slightly due to traffic volumes increasing, but will remain relatively low.	No impact	Improved access to platted lots could facilitate increased rate of development and traffic volumes resulting in increased noise levels. Combined with past, present and reasonably foreseeable future actions, the Build Alternative would not be expected to significantly contribute to cumulative effects for noise.
Visual Quality	No change	Construction Temporary reduction in visual quality from construction equipment and vegetation removal	Minor impacts	No impact
Air Quality	No change	Construction Temporary increase in dust and exhaust during construction Operation Use of graveled roadway surface by vehicles could lead to increase in dust.	Minor impacts	No impact
Water Quality	Continued on-going degradation and sedimentation of existing wetlands and streams caused by ORV/ATV traffic off-tracking and taking multiple routes to successfully traverse through to reach private properties in Gray	Construction Potential for water quality degradation during construction as a result of sedimentation from failed BMPs	Minor impacts	Improved access to platted lots could facilitate increased rate of development and cumulative impacts to water quality.

Environmental Resource	No Action Alternative	Build (Selected) Alternative Direct Impacts	Build (Selected) Alternative	Build (Selected) Alternative
	Cliff and Moose Point subdivisions	Operation Implementation of this project will rectify on-going environmental degradation and an on-going source of pollution into Cook Inlet by providing a stable, year-round traveling surface that will restrict off- tracking by off-road vehicles and the on- going degradation of Leif's Creek and wetlands and sediment loads into Leif's Creek and Cook Inlet		
Hazardous Materials and Spills	Risk of petroleum spill/hazardous waste spill incident as a result of a crash in the ROW and/or into the high-pressure transmission line	Construction Potential for spills during construction as a result of failed BMPs	No impact	No impact
Social and Community	No change	ConstructionTemporary traffic delays, increased noise, access changes, and other construction-related disruptions to residentsProposed construction would provide temporary income for local and regional workers and local businesses	No impact	No impact

Environmental Resource	No Action Alternative	Build (Selected) Alternative Direct Impacts	Build (Selected) Alternative Indirect Impacts	Build (Selected) Alternative Cumulative Impacts
Environmental Justice	No change	No impact	No impact	No impact

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Appendices

Attachment A – Kenai Spur Highway Extension; June 22, 2017 Public Meeting Summary Attachment B – Kenai Spur Highway Extension; February 8, 2018 Public Meeting Summary

Acronyms and Abbreviations

ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
ADT	Average Daily Traffic
AK	Alaska
APDES	Alaska Pollutant Discharge Elimination System
APE	Area of Potential Effect
ATV	All-Terrain Vehicle
BMP	Best Management Practice
CEQ	Council on Environmental Quality
CCSRS	Captain Cook State Recreation Area
CIRI	Cook Inlet Region Incorporated
CO	Contract Officer
DCCED	Alaska Department of Commerce, Community and Economic Development
EA	Environmental Assessment
EJ	Environmental Justice
EPA	Environmental Protection Agency
EO	Executive Order
ESCP	Erosion and Sediment Control Plan
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
KNWR	Kenai National Wildlife Refuge
KPB	Kenai Peninsula Borough
KSE	Kenai Spur Extension
KSH	Kenai Spur Highway
KWF	Kenai Watershed Forum
LF	Linear Feet
NEPA	National Environmental Policy Act
NRCS	Natural Resources Conservation Service

OHA	Office of History and Archeology
ORV	Off-Road Vehicle
ROW	Right-of-Way
S&O	Stewardship & Oversight
SPCC	Spill Prevention Control and Countermeasures
SWPPP	Stormwater Pollution Prevention Plan
USACE	US Army Corps of Engineers
USDOT	US Department of Transportation
USFWS	US Fish & Wildlife Service
WFLHD	Western Federal Lands Highway Division

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1. Introduction

1.1. Background

In the 1980's private property north of the Captain Cook State Recreation Area in Nikiski was subdivided into residential lots for the Gray Cliff and Moose Point subdivisions. During the process of subdividing the Gray Cliff and Moose Point subdivisions KPB established a 100-foot-wide transportation corridor to provide access to the lots offered for sale. As these lots were developed and occupied, the only overland access to these properties was via the clearing adjacent the existing Andeavor AK Pipeline and Harvest Pipeline Company corridor. As there was no developed trail or roadway, access was solely through offroad vehicles pioneering trails through the pipeline easement and adjacent KPB right-of-way (ROW). Because of the unimproved nature of the route and presence of wetlands, several large, impassable sinkholes have formed from the ORV traffic that require users to bypass on one side or the other. This has resulted in multiple vehicle trails that are spread over a large area rather than being confined to a single alignment or within the platted ROW. These off-road activities have caused significant degradation to streams such as Leif's Creek and Otter Creek; both of which support anadromous fish runs, as well as significant degradation to wetland and upland habitats. This activity has also caused erosion, sedimentation and water quality degradation to Leif's Creek and the associated turbid runoff and sedimentation into Cook Inlet. Jacobs Ladder is a heavily used access off-road trail that travels along, and through Leif's Creek as it accesses and connects Cook Inlet Beach to the KSH ROW.

Alaska is arguably the least-connected state in the Union in terms of road transportation. The state's road system covers a relatively small area of the state, linking the central population centers Under H.R. 2400 The Transportation Equity Act of the 21st Century (TEA 21) of 1998 the extension of the Kenai Spur Highway was appropriated \$6,000,000 to be used by the KPB to construct an extension of the KSH. While some funding was used for preliminary design and environmental work, KPB concluded that the project development costs, including NEPA compliance, would exhaust the allocated funds before completion of construction.

In 2014, Apache Corporation began considering the development of a drill pad site within the Kenai National Wildlife Refuge (KNWR) in the Nikiski area, approximately seven miles north of the KSH terminus. The Apache Kenai Spur Extension was designed as an oil and gas exploration road. Apache took preliminary steps towards developing a project extending the KSH to the proposed site. In September, 2015 the US Army Corps of Engineers (USACE) issued permit POA-2014-460 authorizing Apache Corporation to fill 16.6 acres of jurisdictional wetland as part of constructing the Kenai Spur Extension (KSE) to access fields for oil and gas exploration. As the issuance of the 404 permit was a federal action the USACE conducted an environmental assessment as required under the National Environmental Policy Act (NEPA). In 2016 Apache Corporation pulled out of existing business developments in Alaska and withdrew from the planned development to extend the KSH to the proposed oil and gas exploration field. Apache accumulated a significant amount of preliminary engineering and environmental data and permits for the project and agreed to donate the completed work and environmental approvals to the Kenai Peninsula Borough. KPB is using that donated preliminary engineering and environmental work as part of the required 20% 'match' to access the remaining grant funds. WFLHD is working with the KPB in a Stewardship and Oversight (S&O) role to ensure KPB delivers the project in accordance with Title 23 requirements and other applicable federal laws. WFLHD is performing Stewardship & Oversight and environmental services on the project pursuant to its authority under 23 USC 308. This Environmental Assessment (EA) describes the reasonable range of alternatives and the process the Project Partners used to determine these alternatives. It also analyzes the impacts of these alternatives in the context of the existing environmental conditions and proposes mitigation measures to reduce or eliminate impacts.

1.2. Project Location

The project location is in the KPB in Section 2, Township 8N Range 10W; Section 36, Township 9N Range 10W; and Sections 14-15, 21-24, 28-31, Township 9N Range 9W Seward Meridian; near Nikiski, Alaska. The beginning of the project is located at 60° 48' 24.035" N, 150° 59' 54.627" W. The entirety of the proposed KSH is within the KPB-platted ROW.

Figure 2. Project Map of Kenai Spur Highway Extension



1.3. KPB Proposed Project vs. Apache Oil Proposal – A Comparison

The proposed extension of KSH is an 8.1 mile, 24-foot wide single-lane gravel road with an 18-foot wide driving surface. The project would begin at the Captain Cook State Recreation Area (CCSRA) and extend northeast, within the KPB's existing ROW through the Gray Cliff and Moose Point Subdivisions and terminate just past the bridge crossing of Otter Creek. In the uplands the surface will be cleared and grubbed, geotextile mat put down and the road constructed in 8-inch lifts to a depth of at least 24-inches compacted to 95% density. In the uplands the "top" or driving surface will be 18 feet wide on a 24-foot wide roadbed. In the wetlands the surface will not be cleared or grubbed, vegetation will be cut to the surface, then woven geotextile mat (Geotex NW 601® or equivalent) put down and the road will be a 30-foot wide single-lane gravel road with an 18-foot wide driving surface constructed in 12-inch lifts to a depth of at least 30-inches

compacted to 95% density. Road subsidence is anticipated to occur in the sections built on top of wetlands. This proposed KPB extension of KSH would accommodate drainage and include intermittent turnouts for passage of large vehicles. This road would be open to public use and access and maintained by the KPB. The KSH extension project entirety is located on existing platted subdivision road ROWs. Turnarounds and turnouts are sited in upland areas. The project road and trail alignment have been mapped and impacts to wetlands minimized to the extent practicable. The project will provide improved access to recreation areas and subdivisions.

A separate project is being developed by the Borough which would add add 0.24 miles of 10-foot wide gravel trail to improve the existing Borough ROW known as Jacobs Ladder Trail. between the KSH and top of the beach access. The Jacobs Ladder Trail is a connection from the Cook Inlet Beach to the KSH currently used by residents of Grey Cliff and Moose Point to bypass the first ~4 miles of the unimproved KSH extension. The Jacobs Ladder Trail will be funded through a State of Alaska Department of Commerce, Community and Economic Development (DCCED) grant and is not part of the WFLHD funding or KPB matching contributions. Under the National Environmental Policy Act (NEPA) environmental analysis must be conducted for any project that involves federal funding, work performed by the federal government, or permits issued by a federal agency. Jacobs Ladder Trail does not have Federal funding and is not work performed by the Federal government. Though being developed concurrently with KSH extension, Jacob's Ladder Trail is a standalone project which addresses a separate need to improve the existing dedicated ROW access from the Cook Inlet Beach to the KSH extension and would then primarily serve the platted lots of Grey Cliff adjacent to the ROW. Jacobs Ladder Trail also has issues with water quality impacts to Leif Creek and wetland impacts caused by off-tracking by ATVs/ORVs and much like the KSH extension, improvements to Jacobs Ladder would significantly reduce those impacts. In addition to its independent utility, it connects logical termini and does not restrict consideration of KSH alternatives. Though not a part of the KSH project, the cumulative impacts of Jacob's Ladder Trail are considered in this document.

In 2015 US Army Corps of Engineers (USACE) conducted a NEPA evaluation as part of the Clean Water Act Section 404 permit POA-2014-460 issued to Apache Alaska Corporation (Apache) for a similar proposed scope of project to be developed and constructed by Apache for the purpose of allowing a private oil and gas company access to lands within the Kenai National Wildlife Refuge for oil and gas exploration. The USACE issued its Memorandum for Record of Decision on the permit, including on environmental compliance on September 20, 2015. The information in that document is hereby incorporated into this Environmental Assessment. USACE Section 404 permit on the Apache application is based upon the road crossing a total of 16.6 acres of wetland and comprising of 57,643 cubic yards of fill in those wetlands. See Section 11, below for link to the document.

On October 5, 2017 the USACE issued a modification to the permit POA-2012-460-M1 comprising of a reduced wetland fill area of 14.0 acres and 47,956 cubic yards of fill in wetlands. Construction requirements, including clearing, grubbing, gravel, culverts, drainage mat sections, turnouts and subdivision approaches, will be as originally provided.

The design of the KSH extension remains the same as in the prior USACE Section 404 permit, from the beginning of the project to station 421+46, near Mountain Violet Drive, constructing an 18' wide road with

sixteen 10-foot wide turnouts and five 25-foot wide turnouts. These turnouts will be located where subdivision road approaches at platted ROWs, at specified locations not to exceed every 2000 LF, or where hilly terrain and limited site distance are prevalent to assist transportation and safety. Within the KSH extension there will be three 80-foot by 100-foot turn-arounds. These turn-arounds will be located just beyond the intersection with Jacobs Ladder (station 224+00), just before the intersection with Larkspur Loop (station 358+00) and at the terminus of the KSH extension beyond the Otter Creek crossing (station 433+25). The road width and shoulder slopes have been modified from the Apache design to reduce impacts from 26-foot width and 2.5:1 side slopes to 18-foot width and 2:1 side slopes. This design deviation was approved of the Borough Road Service Area Board.



Figure 3. Kenai Spur Highway Extension, Permit Modification POA-2014-460-M1

Design omissions from the original USACE submittal include:

- Eliminating the 400-foot by 160-foot turnaround pad adjacent to Otter Creek and Mountain Violet Drive. This decrease in design scope will reduce the sum-total of permanent wetland impact by 1.28 acres.
- Eliminating construction of Mountain Violet Drive and associated production pads in Sections 13, 23 and 24 will result in another reduction of 0.07 acres of permanent wetland impact.

Design additions from the original USACE submittal includes:

- Extending the 18-foot wide road over the newly constructed 50-foot Otter Creek Bridge to an upland area near Warmwood Drive, and would total 834 LF of wetland impact; and
- Constructing a 10-foot wide gravel off-road vehicle access on Jacobs Ladder Drive from the KSH to the top of the bluff, an additional 645 LF of wetland impact. Jacobs Ladder currently provides dedicated ROW access from the Cook Inlet Beach to the KSH, adjacent to Leif's Creek. The construction of the Jacobs Ladder trail will provide off-road vehicles improved access in an area where they are currently creating an ever-expanding footprint in the nearby wetlands and increasing the sediment load to Leif's Creek. The Jacobs Ladder Trail will be funded through a State of Alaska Department of Commerce, Community and Economic Development (DCCED) grant and is not part of the WFLHD funding or KPB matching contributions and therefore is not part of this EA analysis, except for assessing cumulative impacts.

Environmental Discipline	KPB Proposed Alternative	Previous Apache Oil Proposed Alternative Evaluated under USACE POA-2014-460	Change from USACE NEPA Evaluation
Transportation and Access	Legal access. Road maintained by KPB.	Legal access. Road maintained by KPB.	No change.
Land Use	Public Land. All work will occur within the KPB ROW.	Public Land. All work will occur within the KPB ROW.	No change.
Recreation	Improved road reliability and safety encouraging additional recreation use beyond the project limits.	Improved road reliability and safety encouraging additional recreation use beyond the project limits.	No change.
Wetlands	The project will result in the fill and permanent loss of 14.0 acres of jurisdictional wetland and a modification to permit POA-2014-460.	Permit POA-2014-460 authorized the fill and permanent loss of 16.6 acres of jurisdictional wetland.	A reduction by 2.6 acres of wetland impact/permanent loss.
Floodplains	No impact.	No impact.	No change.
Fish, Wildlife & Vegetation	Vegetation clearing would be limited to the 100' ROW. Any tree removal would be conducted outside the migratory bird nesting window. All anadromous fish streams have designed and ADF&G permitted aquatic organism passage. The	Vegetation clearing would be limited to the 100' ROW. Any tree removal would be conducted outside the migratory bird nesting window. All anadromous fish streams have designed and ADF&G permitted aquatic organism passage. The	No change.

Table 2. KPB Proposed Project vs. Apache Oil Proposal - A Comparison

	supports multiple species of terrestrial and avian wildlife; improved road surface conditions would allow for increased traffic speeds, increasing risk of wildlife collisions, adverse impacts as a result of the proposed project are not anticipated because of the abundance of adjacent habitat and low volumes of traffic.	supports multiple species of terrestrial and avian wildlife; improved road surface conditions would allow for increased traffic speeds, increasing risk of wildlife collisions, adverse impacts as a result of the proposed project are not anticipated because of the abundance of adjacent habitat and low volumes of traffic.	
Cultural and Historic Resources	No impact.	No impact.	No change.
Soils and Geology	No impact.	No impact.	No change.
Noise	During construction increased noise levels would occur at closest sensitive receptors.	During construction increased noise levels would occur at closest sensitive receptors.	No change.
Visual Quality	There are no officially designated scenic areas or attributes in the project area.	There are no officially designated scenic areas or attributes in the project area.	No change.
Air Quality	Vehicle traffic on a graveled surface could produce dust during dry seasons.	Vehicle traffic on a graveled surface could produce dust during dry seasons.	No change.
Water Quality	Project will rectify on-going environmental degradation and an on-going source of pollution into Cook Inlet by providing a stable, year- round traveling surface.	Project will rectify on-going environmental degradation and an on-going source of pollution into Cook Inlet by providing a stable, year- round traveling surface.	No change.
Hazardous Materials and Spills	No impact.	No impact.	No change
Social and Community	Permanent all season access to Gray Cliff and Moose Point subdivisions and recreational access and use.	Permanent all season access to Gray Cliff and Moose Point subdivisions and recreational access and use.	No change.
Environmental Justice	No Impact.	No Impact.	No change.

2. Project Purpose and Need

2.1. Purpose

Implementation of this project will restrict off-tracking by off-road vehicles and rectify on-going environmental degradation and an on-going source of pollution into Cook Inlet by providing a stable, year-round traveling surface for residents of Gray Cliff and Moose Point Subdivision and recreationalists going beyond to Kenai NWR. Road construction away from the pipelines will also reduce chances of conflict and potential damages.

2.2. Need

Residents and property owners within the Gray Cliff Subdivision, and Moose Point Subdivision have long requested improved access to their properties. Currently access is limited to off-road vehicles (ORVs) and by foot. Access is limited by the season and time of day. Access is limited daily when property owners look to bypass some of the more impassable areas by traveling along the beach of Cook Inlet during periods of low tide and then traveling up Jacobs Ladder. Beach access is used to avoid the first approximately4 miles of KSH extension because of the wetland/swampy areas where ATVs can get stuck. Access is limited seasonally when all-terrain vehicles (ATVs) or ORVs traverse through the wetlands, turning the areas turned into impassable mudholes, limiting consistent access to when the ground is frozen. Emergency response to residents and property owners in the Gray Cliff and Moose Point Subdivisions is limited to what can be accessed via ATVs or ORVs. By completing the KSH extension, emergency response to residents and property owners in the Gray Cliff and Moose Point Subdivisions will be greatly improved. ORVs/ATVs are currently using the utility easement in close proximity to the high-pressure petroleum transmission pipelines, this close proximity creates risk of an ORV/ATV losing control and crashing into the pipeline.

3. Project Alternatives

3.1. KPB Preferred Alternative

This section describes the project alternatives; the Build Alternative and the No Action Alternative. The KPB proposed extension of KSH is intended to be an 8.1 mile extension of Kenai Spur Highway (KSH) as a single-lane gravel road extending to a turnaround just beyond the existing bridge crossing of Otter Creek. The extension will be an 18-foot wide driving surface with sixteen 10-foot wide turnouts and five 25-foot wide turnouts. These turnouts will be located at platted subdivision road approaches, at specified locations not to exceed every 2000 LF, or where hilly terrain and limited site distance are prevalent to assist transportation and safety. Within the KSH extension there will be three 80-foot by 100-foot turn-arounds. These turn-arounds will be located just beyond the intersection with Jacobs Ladder (station 224+00), just before the intersection with Larkspur Loop (station 358+00) and at the terminus of the KSH extension that meets the KPB Road Construction Standards the road will be accepted into the KPB Road Service Area (RSA) for maintenance.



*road design exceeds the applicable design standards; KPB Road Service Area standards for Category II Engineer Designed roads, with an approved exception for lesser width

In the uplands, the 18-foot wide road will be constructed by:

- 1. Clearing and grubbing with the mulch left in place.
- 2. Geotextile fabric to separate the native ground from the imported fill;
- 3. gravel fill placed and compacted in 8" lifts. (3 lifts minimum); and
- 4. the top 4" of fill to be composed of 3" minus gravel.

In the wetlands, the 18-foot wide road will be constructed by:

- 1. Vegetation cut to ground level, but no grubbing or excavation.
- 2. Geotextile fabric to separate the native ground from the imported fill;
- 3. gravel fill placed and compacted in 12" lifts. (2.5 lifts minimum); and
- 4. the top 4" of fill to be composed of 3" minus gravel.
- 5. To limit the footprint/impacts in wetlands, the Contractor may not place fill, remove material or run equipment outside the designated 29.5' construction zone.

3.2. No Action Alternative

With the No Action Alternative, the proposed project would not be constructed and restricted access to Gray Cliff and Moose Point Subdivisions would continue. Environmental degradation and the on-going source of sediment pollution into Cook Inlet would continue; a result of ORVs/ATVs continued off-tracking and mud-bogging through the unimproved KPB ROW. The risk of a transmission pipeline leak could occur; a result of a crash into the pipeline, because of the close proximity of high-pressure oil transmission lines to ORV/ATV traveling at high rates of speed to avoid getting stuck in the mud on very slippery and uneven surfaces.

3.3. How the Build Alternative Satisfies the Purpose and Need

The purpose of the proposed improvements is to meet the needs of the public; to provide safe, year-round access to Gray Cliff and Moose Point Subdivisions, visitors to Kenai NWR and eliminate the everexpanding off-road vehicle trails around and through the KPB ROW, causing degradation to streams, wetlands and upland areas and threatening the integrity of the pipeline.

4. Affected Environment and Environmental Consequences

For the purpose of this EA, the *project area* is the extent where the project would have direct impacts. Indirect impacts are analyzed in this EA, even if they occur outside of the project area. This EA analyzes project impacts the environmental resources (e.g. transportation, land use, wildlife and vegetation) that the project has potential to impact. This section is divided into subsections for the separate resources, and for each resource the following categories are described:

- Affected Environment
- Direct Impacts
- Indirect Impacts (as necessary)
- Cumulative Impacts (as necessary)
- Mitigation (as necessary)

Affected Environment

The affected environment is the existing conditions relevant to the specific environmental discipline. The affected environment section discusses, commensurate with the likelihood and extent of the potential impacts, the existing social, economic, and environmental settings surrounding the project. It also identifies environmentally sensitive features in the project corridor. Each environmental resource subsection describes the affected environment related to that specific resource.

Direct Impacts

Direct impacts are those effects caused by the construction or operation of the proposed action. They include potential impacts in the immediate project footprint. Temporary impacts are included in this section and include impacts due to construction, which will be for a finite period of time, likely less than 2 years.

Indirect Impacts

Indirect effects occur separated from the proposed project by time or distance. In general, the project could generate long term changes to either human activity levels or land use in the action area because it is increasing roadway capacity and providing improved access to previously less accessible areas.

Cumulative Impacts

The Council on Environmental Quality (CEQ) defines cumulative impacts as those effects of past, current, or future public or private activities that are reasonably certain to occur within project area, combined with the effects of the proposed action.

Cumulative effects are the combination of a project's impacts on a particular resource with the impacts of other past, present, and future human activities on that same resource. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time (40 Code of Federal Regulations [CFR] 1508.7).

The scope of a cumulative effects analysis is related to the magnitude of the impacts of the proposed action. If a project does not have permanent adverse impacts on a particular resource, the project cannot contribute to cumulative effects on that specific resource. Therefore, the majority of resources discussed in this EA were identified as no cumulative impact and dismissed from the cumulative effects analysis. Only those resources that the project would permanently adversely impact are included.

Past actions that have had the most measurable effect on the project area include creation of the Kenai National Wildlife Refuge, construction of Leif's Creek and Otter Creek Bridges, timber harvesting, quarry development and mining, and private residential development within platted lots in the Gray Cliff and Moose Point Subdivision. Currently, there are no planned future public roadway projects in the vicinity of the KSH. The only proposed project in the vicinity is the Jacobs Ladder Trail Improvement. Other potential future actions considered in the analysis include the installation of Seven Eggs Creek north of the terminus of the KSH extension by the Kenai Watershed Forum (should funding be obtained) and development of platted undeveloped lots in the two subdivisions.

Mitigation

The CEQ regulations define mitigation as:

- Avoiding the impact altogether by not taking a certain action or parts of an action.
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing or providing substitute resources or environments.

Mitigation measures for this project have been proposed to mitigate for impacts to the extent possible and are described in further detail below and summarized in Section 8.

4.1. Transportation and Access

This section describes existing conditions and potential impacts of the proposed project alternatives related to transportation and access. Transportation information was collected from the 2003 Kenai Peninsula Borough Transportation Plan.

4.1.1. Affected Environment

The KPB Road Service Area (RSA) maintains over 630 miles (95% is gravel and 5% is paved) of roads (see Figure 4). The RSA is divided into five regions, Central, West, North, East and South. Each region is divided into units. There are twenty-eight (28) road maintenance units borough-wide. The Kenai Spur Extension Project area is located in Road Maintenance Unit N5. Kenai Spur Highway at mile post 15 to approximate mile post 35 (North Kenai/Nikiski) is maintained by the Borough. Road maintenance includes snow plowing, sanding, minor road repairs, grading and ditch clearing.

4.1.1.1. Road Conditions

Residents presently use ORVs/ATV vehicles to access property and recreational areas beyond the existing road system. Off-road vehicle use has altered the vegetation and exposed soil and degraded stream banks, and that disturbance continues to grow as travelers take ever wider paths around muddy and wet areas. The off-road vehicle use has led to adverse effects on water quality (both on-and off-site), degraded wetland and riparian areas, and fish and wildlife habitats.



Figure 5. KPB Road Service Area



Figure 6. Present Road Conditions, Kenai Spur Road

4.1.2. Environmental Consequences

4.1.2.1. No Action

Because of the unimproved nature of the route and presence of wetlands, several large, impassable sinkholes have formed from the ORV/ATV traffic that require users to bypass on one side or the other (see Figure 5). This has resulted in multiple vehicle trails that are spread over a large area rather than being confined to a single alignment or within the platted ROW.

4.1.2.2. Build Alternative

4.1.2.2.1. Direct Impacts

The proposed alternative would provide motor vehicles a stable, year-round traveling surface for residents of Gray Cliff and Moose Point Subdivision and will restrict off-tracking by offroad vehicles and the on-going degradation of Leif's Creek and wetlands. During construction, there will be delays that will temporarily affect access for residents of Gray Cliff and Moose Point Subdivision. During construction, the municipality of Nikiski could see a slight uptick in construction related traffic, however, haul truck traffic should have minimal effect to traffic in Nikiski. The likely material site for constructing the road is north of Nikiski, trucks hauling construction material likely will not enter town.

4.1.2.2.2. Indirect Impacts

The proposed project would improve long-term reliability, access, and safety along the KSH. Emergency vehicles would be able to access residents of Gray Cliff and Moose Point Subdivision. Improved access could result in increased traffic. Improved access and road

reliability could facilitate private roads or driveways constructed to connect undeveloped property to the KSH extension.

4.1.2.2.3. Cumulative Impacts

The proposed improvements to the extension of the KSH complement other past projects, such as the Leif's Creek and Otter Creek Bridges as well as the planned Jacobs Ladder Trail Improvement. The Jacobs Ladder Trail Improvement will provide a more stable surface on a well-used off-road vehicle trail. It will not be open to regular vehicle use and therefore is not anticipated to cumulatively increase traffic on the KSH. Combined with past, present, and reasonably foreseeable future actions, the Build Alternative would not be expected to contribute to cumulative effects to transportation and traffic.

4.1.2.2.4 Mitigation Measures

WFLHD recommends the following mitigation measures to offset transportation- and access related impacts during construction:

- Signage installed and public notices locally advertised in advance of and during traffic changes to inform the public;
- Installation and coordination of temporary traffic control devices to minimize the impacts to motorists.

4.2. Land Use

This section describes existing land use within the project area. Information was gathered from the 2005 Kenai Peninsula Borough Comprehensive Plan. In addition, site reconnaissance was conducted in June 2016.

4.2.1. Affected Environment

The Kenai Moose Range, now the Kenai National Wildlife Refuge (KNWR) was established in 1941 for the purpose of protecting the habitat of Kenai Peninsula moose. In 1964 the Secretary of the Interior modified the boundary of KNWR, moving the boundary from the western coastline of the Kenai Peninsula to its present location and withdrawing 21,000 acres from the KNWR along a strip between Captain Cook State Recreation Area (CCSRA) to Point Possession for development. In 1981 a KPB Resolution was implemented to acquire certain parcels of the Kenai National Moose Range in exchange for KPB lands. Once the former Moose Range property was KPB ownership, a resolution was passed to zone the property for residential development. During the process of subdividing the Gray Cliff and Moose Point subdivisions the KPB established a 100-foot wide transportation corridor to provide access to the lots that were offered for sale. This project is located within that transportation corridor. This section describes existing conditions and potential impacts of the proposed project alternatives related to land use. Information was gathered from the 2005 Kenai Peninsula Borough Comprehensive Plan. In addition, site reconnaissance was conducted in June 2016.

4.2.1.1. Existing and Planned Land Uses

The project area is within a rural, relatively isolated, and unincorporated section of KPB that includes a mixture of land uses: forest and recreational lands, federal lands and private properties. Approximately 358,000 acres, or 3.4% of the Kenai Borough, is in small privately owned tracts, obtained through homesteads, home sites. Majority of the development in the Borough is concentrated on this private land. Native allotments, and other state, federal and borough land disposal programs make up the remaining 96.6% land ownership. Land use within the project is mapped and shown on Figure 6. The occupied residential parcels are located throughout the length of the project. Most accessory building (cabins and storage buildings) are more concentrated along the south end of the project. The population of the Kenai Peninsula Borough increased by

approximately 25% between 2000 and 2010, the number of parcels used for residential purposes increased by 30%. This may be due to a variety of factors, including an increase in the number of vacation or second homes and a decrease in household size.



Figure 7. Land Use Kenai Spur Extension

(Source: Kenai Peninsula Borough GIS)

4.2.2. Environmental Consequences

4.2.2.1 No Action

Under the No Action Alternative, residential development Gray Cliff and Moose Point Subdivisions would likely occur at the present pace, which is likely slower than the Build Alternative.

4.2.2.2. Build Alternative

4.2.2.2.1. Direct Impacts

The project would improve access to Gray Cliff and Moose Point Subdivisions and terminates at the bridge crossing Otter Creek. It does not provide access to other new areas (other than as described in *Indirect Impacts* below), it would not directly affect land use in the project area, other than the land in the proposed ROW directly converted to transportation use. Because the proposed road improvement would improve access to Gray Cliff and Moose Point Subdivisions, as well as the Kenai National Wildlife Refuge, it is possible that development of individual parcels within the planned residential developments could occur sooner, but would not result in a change in the land use as land use is subject to current and future KPB land-use plans. Any change in use would require a change in the comprehensive land use plan.

4.2.2.2.2. Indirect Impacts

The Build Alternative would allow improved material and equipment access, thereby potentially facilitating a slight increase in the rate of development of Gray Cliff and Moose Point Subdivisions, particularly those parcels with current access to the corridor. The majority of parcels are currently landlocked or otherwise inaccessible, and would remain so. Residential development in the project area is limited to the platted Gray Cliff and Moose Point subdivisions. Development must be in compliance with the 2005 Kenai Peninsula Borough Comprehensive Plan. Increase in the rate of land development is a possibility, but not a foregone conclusion. Other factors, such as no utilities (there is no electricity, no municipal water, no sewer system currently serving Grey Cliff and Moose Point subdivisions) will limit the rate and extent of land development.

4.2.2.3. Cumulative Impacts

Past actions had the most measurable effects on land use in the area, with the creation of the Kenai National Wildlife Refuge and the development of the two subdivisions and ROW identifying where and how future development could occur. The currently proposed Jacobs Ladder Trail improvement will not impact land use and therefore does not add to potential cumulative impacts. The trail is currently used by off road vehicles and will continue to be used in this way once the project is completed.

Planned future development of platted lots is anticipated to occur with or without the proposed Build Alternative. While the rate of development could slightly increase as a result of the Build Alternative, it is not anticipated to result in significant cumulative effects. Other factors, including limited infrastructure for development (no utilities currently available), will likely keep rates of development low. Combined with past, present, and reasonably foreseeable future actions, the Build Alternative would not be expected to significantly contribute to cumulative effects to land use.

4.2.2.2.4. Mitigation Measures

Any proposed land use activities will require compliance with the 2005 Kenai Peninsula Borough Comprehensive Plan, or future comprehensive land use plan. KPB will keep the public informed of changes in the comprehensive land use plan through the KPB website and newspaper notices (e.g. Peninsula Clarion).

4.3. Recreation

This section describes existing recreation opportunities within the project area. Information was gathered from the 2010 Kenai National Wildlife Refuge Comprehensive Conservation Plan, Kenai National Wildlife Refuge Visitors Guide and 2013 North Peninsula Recreation Service Area Master Plan.

4.3.1. Affected Environment

The project area is surrounded by outdoor recreation. Nearby is the East Foreland Lighthouse reserve, the Captain Cook State Park, the Kenai National Wildlife Refuge (KNWR) and the Chugach National Forest. There is no shortage of greenspace for the community to get outside. For indoor recreation, the nearby community of Nikiski has the North Peninsula Recreation Center. The KSH extension is immediately adjacent to the KNWR. The KNWR provides recreation opportunities including, but not limited to: hiking; wildlife viewing; camping (including cabins); canoeing; cross-country skiing; and fishing.

4.3.2. Environmental Consequences

4.3.2.1 No Action

The No Action Alternative would not change or otherwise affect recreation opportunities in the project area.

4.3.2.2. Build Alternative

4.3.2.2.1. Direct Impacts

The Build Alternative would improve recreational access to the KNWR by providing a stable, year-round traveling surface for automobiles, allowing the public to get closer to the boundary of the Refuge than is currently possible without off road vehicles. Implementing the KSH extension does not provide automobiles access to the boundary of the KNWR, nor does it change the management, uses or restrictions within the KNWR. During construction, there will be construction delays that could temporarily disrupt access to open space destinations beyond the project limits. Coordination efforts prior to, and during construction activities with entities interacting with tourists (Nikiski Chamber of Commerce, Kenai Peninsula Borough, USFWS) would minimize impacts to tourists.

4.3.2.2.2. Indirect Impacts

Because of the stable, year-round traveling surface adjacent to the boundary of the Refuge there could be more year-round access and recreational use of the KNWR, but the impact is minimal because of the sheer size of the Refuge (approximately 1,987,202 acres) and relatively remote location.

4.3.2.2.3. Cumulative Impacts

There are no known changes to use or management of the Kenai NWR that could be affected by this proposed action.

4.3.2.2.4. Mitigation Measures

The following mitigation measure is recommended to minimize potential impacts to recreation. Mitigation measures related to transportation and access along the KSH also would be applicable to maintaining recreational uses.

• KPB would coordinate with USFWS so that notices regarding KSH delays and closures can be posted on the USFWS KNWR website, in newspapers (e.g. Peninsula Clarion), etc.;

4.4. Wetlands

This section describes wetlands within the project area. Information was gathered from the US Army Corps of Engineers 404 Permit POA-2014-460, the Kenai Spur Extension POA-2014-460 Supplemental Information prepared by Kenai Peninsula Borough Road Service Area and the reissued permit POA-2015-460-M1.

Figure 8. Wetlands in and near the Kenai Spur Extension



(Source: Kenai Peninsula Borough GIS)

4.4.1. Affected Environment

Approximately 50% of the wetlands in the project area are palustrine-emergent (PEM) wetlands. Palustrine forested wetlands (PFO) and palustrine scrub shrub (PSS) wetlands each make up approximately 25% of the wetlands in the area (see Figure 7). The disturbed wetlands in the area have been subject to ongoing, persistent disturbance to both the surface soils and the vegetation due to offroad vehicle use. Information was gathered from the US Army Corps of Engineers 404 Permit POA-2014-460 and the Kenai Spur Extension POA-2014-460 Supplemental Information prepared by Kenai Peninsula Borough Road Service Area.

4.4.2. Environmental Consequences

4.4.2.1. No Action

Under the No Action Alternative existing impacts to wetlands and fish streams in the area will likely continue or worsen because of the unimproved existing travel conditions. Because of the unimproved nature of the route and presence of wetlands, the continuous ORV/ATV traffic has resulted in several large, impassable sinkholes that have formed requiring travelers to bypass on one side or the other. This has resulted in multiple vehicle trails that are ever expanding and will continue to expand to the extents of the ROW.

4.4.2.2. Build Alternative

4.4.2.2.1. Direct Impacts

The Build Alternative would result in permanent impact to and loss of 14.0 acres of wetlands. The construction of the KSH extension will require filling and building on top of existing wetlands. The project road and trail alignment have been mapped and impacts to wetlands minimized to the extent practicable. Wetlands are widespread in western Kenai Peninsula lowlands and cannot be completely avoided by this project. Although the project footprint will result in the permanent loss of 14.0 acres of wetlands and 497 linear feet of stream habitat, constructing the road will reduce or eliminate the chronic wetland and stream degradation

occurring from off-road vehicle use and will contribute to the conservation of wetlands, streams and wildlife habitat along the proposed road, as well as improving water quality in the streams and wetlands. Temporary impacts to wetlands are more likely to occur at locations immediately adjacent to where the KSH extension is to be constructed. Temporary disturbances to wildlife activity, hydrology and water quality will be avoided as much as possible through the use of Best Management Practices (BMPs).

4.4.2.2.2. Indirect Impacts

The Build Alternative would not result in indirect effects to wetlands.

4.4.2.2.3. Cumulative Impacts

Past activities in the project area have likely impacted wetlands through ground-disturbing and development activities, though most of the land outside of the KPB ROW remains forested. Other than the improvements to Jacobs Ladder Trail, no future public works projects or private developments are identified at this time. Future development in the area could impact wetlands, including development in currently vacant lots within the two subdivisions. A minor increase in residential development could result in the discharge of fill into wetlands for the construction of driveways, homes and utility installation. Increased access could also facilitate the spread of invasive wetland plant species from within and outside the project corridor. Combined with past, present, and reasonably foreseeable future actions, the Build Alternative would not be expected to significantly contribute to cumulative effects to wetlands.

4.4.2.2.4. Mitigation Measures

The following mitigation measures are recommended to minimize potential impacts to wetlands:

- Avoidance:
 - Full avoidance of wetlands by siting the project turnarounds and all but 1 turnout in upland areas.
 - Fill area boundaries will be clearly delineated in the field to avoid accidental impacts from equipment operation and fill material placement.
 - In wetlands, the Contractor may not place fill (including clearing debris) outside the designated 29.5' wide construction zone.
 - The contractor may not clear vegetation or run equipment outside the designated 40' wide clearing zone.
- Minimization:
 - Using a corridor that is already designated ROW, which has been identified for road construction by the KPB. The KPB received federal funding for road construction in the Gray Cliff ROW in the 1990s, and has planned for development of an access road to the Gray Cliff subdivision and further north since subdividing the area.
 - Using a corridor that is already degraded by off-road vehicle use, and placing the road within degraded wetlands rather than undisturbed wetlands, on unavoidable wetland crossings.
 - Construction of an 18' wide one-lane driving surface with 2:1 shoulders itself reduces additional impacts to Waters of the US than a KPB standard 28' wide twolane driving surface with 2.5:1 shoulders would cause. This design width exception reduces the wetland impact footprint by 4.6 acres.
 - Clearing minimum width necessary for project construction and safe operation. On segments crossing wetlands, the maximum clearing width is 40 feet, rather than the 50-foot limits used in uplands.

- Not grubbing wetlands and in uplands not grubbing land outside the project footprint.
- Using steep (2:1) road embankment slopes on wetland crossings to minimize the footprint width while providing long-term stability. The steeper slopes are anticipated to deter off-road vehicle users from leaving the roadway.
- Installing culverts and drainage mat in wetland areas as appropriate to minimize road effects on natural drainage patterns and to restore hydrologic flow currently impacted by extensive off-road vehicle use.
- Implement all BMPs and conditions identified in US Army Corps of Engineers Permit POA-2015-460-M1 and Alaska Department of Fish & Game Habitat Permits.

4.5. Floodplains

Executive Order 11988 requires federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

4.5.1. Affected Environment

None of the project area falls within a FEMA-regulated 100-year flood plain.

4.5.2. Environmental Consequences

Since there are no floodplains in the project area, the Build Alternative will have no impacts on floodplains.

4.6. Fish, Wildlife, and Vegetation

This section describes the potential impacts of the proposed road improvements on fish, wildlife and vegetation. The proposed road improvements would remain within the KPB ROW immediately adjacent to the Andeavor AK Pipeline and Harvest Pipeline Company utility pipeline easement.

Vegetation: much of the project corridor is occupied by degraded habitats, a result of maintenance the historic Andeavor AK Pipeline and Harvest Pipeline Company utility pipeline as well as years of continuous disturbances as a result from ORV/ATV off-tracking.

4.6.1. Affected Environment

The project area is immediately adjacent to the KNWR and is home to a wide diversity of wildlife including moose, eagles, brown and black bears, lynx, wolves, and trumpeter swans. Leif's Creek and Otter Creek have runs of anadromous salmonids.

Vegetation: much of the project corridor is occupied by degraded habitats, a result of maintenance of the pipeline corridor for over 30 years, as well as continuous disturbances from ORV/ATV off-tracking. All construction staging and vegetation clearing would occur within the designated 40-foot wide construction zone.

4.6.2. Environmental Consequences

4.6.2.1. No Action

Under the No Action Alternative, anadromous and local rearing streams are being crossed in an expanding footprint by off road vehicles causing loss of fish habitat and impacts downstream. Wildlife habitat would be degraded from the chronic disturbance to the vegetation and not allow for natural succession of the vegetation community. Continuous vegetation disturbance from

ORV/ATV off-tracking would not allow native vegetation to re-establish and allow for invasive, weedy species such as reed canary grass to spread.

4.6.2.2. Build Alternative

4.6.2.2.1. Direct Impacts

There will be a permanent loss of wetland and upland habitat available for wildlife as it is converted to roadway. During construction of the KSH extension there will be temporary, localized disruption to wildlife from construction noise and vegetation clearing. There would be temporary loss of habitat due to construction-related clearing but the disturbed areas would be re-vegetated to re-establish habitat value.

4.6.2.2.2. Indirect Impacts

Kenai Peninsula supports multiple species of terrestrial and avian wildlife. The proposed roadway extension would allow for autos to travel the KSH extension at higher speeds than ORV/ATV traffic could travel, this can increase the risk of wildlife collisions. The loss of wetland and upland habitat that is converted to a roadway could have an effect on local wildlife populations but the anticipated level of impact would be low because of the abundance of adjacent wildlife habitat. The habitat that will be lost is relatively low quality due to the on-going disturbance. Native vegetation and disturbed areas outside the road prism would become re-established as off-tracking by ORVs/ATVs is eliminated.

4.6.2.2.3. Cumulative Impacts

As identified under Transportation (section 4.1) and Land Use (section 4.2), improving access to platted lots could facilitate an increased rate of development and vegetation removal of private lots within the two subdivisions located adjacent to the KSH extension. Combined with past, present, and reasonably foreseeable future actions, the Build Alternative would not be expected to significantly contribute to cumulative effects to fish, wildlife and vegetation.

4.6.2.2.4. Mitigation Measures

The following mitigation measures are recommended to minimize potential impacts to fish and wildlife resources during construction:

- Limited tree cutting/clearing between May 1 and July 15
- Implement all BMPs and conditions identified in US Army Corps of Engineers Permit POA-2015-460-M1 and Alaska Department of Fish & Game Habitat Permits.
- All equipment working in project area would be free of weed seed.
- Precautions would be taken to prevent the introduction and spread of weeds caused by moving weed-infested sand, gravel, borrow, and fill material.
- In addition to Leif's Creek and Otter Creek, two other un-named streams support anadromous fish and 4 other streams support resident fish. All stream crossings will be designed to meet Alaska Department of Fish and Game (ADF&G) fish passage criteria.

4.7. Cultural and Historic Resources

This section describes cultural resources and potential effects within the Area of Potential Effect (APE). For the purpose of complying with Section 106 of the National Historic Preservation Act, the APE is defined as the designated construction zone + 5 feet on each side (50-feet corridor).
4.7.1. Affected Environment

Evidence for the earliest human occupation in the region comes from radiocarbon dates and comparisons with stone tools found at other prehistoric Alaska sites. Dates over 5000 years old were from a site at the Kenai River-Russian River junction (Mobley 2012), and a site in Kachemak Bay.

About 1000 years ago, Athabaskans from Alaska's interior displaced the Eskimo- or Alutiq-related population from Cook Inlet (Mobley et al. 2003:9-12). The Dena'ina Indians that Europeans encountered in Cook Inlet in the late 1700s are considered to be direct descendants of the original Athabaskan immigrants a millennium ago. Archaeological sites typically consist of rectangular or circular depressions representing the remains of semi-subterranean houses or food caches, often associated with salmon – particularly silver salmon streams. Artifacts are few in Dena'ina sites, as are bones and shells. In 2011 the known archaeological sites in the study area were presumed to be of Dena'ina origin.

A cultural resource survey was conducted within the project Area of Potential Effect (APE) September 24-28 and October 9, 10 and 12, 2014. No historic sites were identified, the Alaska Office of History and Archeology (OHA) concurred with this determination September 25, 2017.

4.7.2. Environmental Consequences

4.7.2.1. No Action

With the No Action Alternative, ORV/ATV off-tracking would continue, similar to existing conditions; but would not likely disturb or adversely affect cultural or historic resources, based on the Apache Alaska Corporation Cultural Resources Plan finding that archaeological material or historic-period buildings or structures are unlikely to exist in the project area.

4.7.2.2. Build Alternative

No previously recorded cultural resources will be affected by the Build Alternative.

4.7.2.2.1. Direct Impacts

While no cultural resources were identified on the KSH extension during previous inventories, there were resources identified in relatively close proximity. There is always a possibility that unanticipated resources will be found through ground disturbance.

4.7.2.2.2. Indirect Impacts

There are known cultural resources in the vicinity but no cultural resources identified within the project APE. Project BMPs will limit the ground disturbance to within the clearing limits. Improved access by constructing the road extension could potentially allow access and possibly impacts to known cultural resources outside of the project APE.

4.7.2.2.3. Cumulative Impacts

The proposed project would not result in disruptions or other adverse direct, indirect, or cumulative impacts to cultural or historic resources, based on the finding that no cultural resources are likely to exist in the project area.

4.7.2.2.4. Mitigation Measures

The following mitigation measures are recommended to minimize potential impacts to cultural resources:

• If previously unknown archeological materials or human remains are discovered during the course of construction, all activities will cease in the immediate area of the finds pending further recommendations from the FHWA in consultation with the Alaska OHA.

4.8. Soils and Geology

This section describes the potential impacts of the proposed road improvements on soils and geology. The geology of the area is bedrock overlain by a widespread complex of unconsolidated deposits laid down as a direct or indirect consequence of glaciation or by subsequent stream activity (Riehle, et.al. 1977).

4.8.1. Affected Environment

Fifteen soils were mapped in and within 500 feet of the project corridor by the Natural Resources Conservation Service, (NRCS web soil survey). Mapped soils units in the proposed ROW range from well drained soils, with hydric inclusions, to very poorly drained. The wetlands were located primarily on the Nikolai peat and Cohoe-Nikolai complex, which are hydric soil units. However, a portion of the wetlands are also located on Naptowne silt loam units. Naptowne silt loam is not a hydric soil, but the mapped units contain Nikolai and Starichkof inclusions, which are hydric. Those wetlands on the Naptowne silt loam tend to be smaller and spread out. Those wetlands on the Nikolai peat units tend to form larger complexes. Large peat wetlands have pore spaces which are used by salmon for overwintering.

4.8.2. Environmental Consequences

4.8.2.1. No Action

Under the No Action Alternative, soils within the ROW will continue to be disturbed as a result of the continuous ORV/ATV traffic creating multiple vehicle trails that are ever expanding and will continue to expand to the extents of the ROW.

4.8.2.2. Build Alternative

4.8.2.2.1. Direct Impacts

Exposed areas of fresh cuts and fills are subject to wind and water erosion. The proposed Build Alternative is a fill project, it would not expose new soils or rock cuts, it would not result in new impacts to the soils and geology of the area and affects would be limited to within the designated 40' wide construction zone. Appropriate sediment and erosion control BMPs would be installed before construction begins and would be maintained in working order throughout the construction period and until vegetation is established. Overall, the Build Alternative would have only minor and localized impacts to the soils and geology of the area, with the final project providing a solid surface for vehicle use and reducing impacts resulting from current ATV/ORV use.

4.8.2.2.2. Indirect Impacts

The Build Alternative is a fill project and would have negligible potential indirect impacts to the soils and geology of the surrounding area.

4.8.2.2.3. Cumulative Impacts

The Build Alternative will have minimal impact on soils and geology and combined with effects from past, current, or future public or private activities are not anticipated to result in any cumulative impacts

4.8.2.2.4. Mitigation Measures

The following mitigation measures are proposed to reduce the levels of impact to soils and geologic resources from the Build Alternative:

- Topsoil would be conserved and stockpiled for later use to enhance revegetation success.
- Locally native plants would be used to improve the revegetation rate.

• Appropriate sediment and erosion control BMPs would be put into place before construction begins and would be maintained in working order throughout the construction period and until vegetation is established.

4.9 Noise

This section describes the potential noise impacts of the proposed road improvements. Noise has not been identified as a major concern in the project area.

4.9.1. Affected Environment

With limited access onto the extension of KSH traffic volumes and traffic noise has not been substantial. The project study area is defined as a buffer 3,200 feet from the limits of construction, based on the distance that construction noise would travel over land. The distance of 3,200 feet was calculated based on guidance from the FHWA Noise Barrier Design Handbook.

4.9.2. Environmental Consequences

4.9.2.1. No Action

ATV/ORV traffic would be expected to slowly increase over time with the No Action Alternative. However, since traffic volumes are expected to remain relatively low, the no Build Alternative is not expected to result in considerable long-term increases in noise.

4.9.2.2. Build Alternative

4.9.2.2.1. Direct Impacts

A temporary increase in noise levels in the vicinity of the project would occur due to construction activities associated with the Build Alternative. To minimize the temporarily higher noise levels, all equipment would be required to comply with FHWA's standard noise mitigation measures. With reliable year-round access traffic would be expected to increase over time more than with the No Build Alternative. However, even with an increase in traffic, traffic volumes are expected to remain relatively low and not expected to result in considerable long-term increases in noise.

4.9.2.2.2. Indirect Impacts

The Build Alternative would not result in indirect effects related to noise.

4.9.2.2.3. Cumulative Impacts

As identified under Transportation (section 4.1) and Land Use (section 4.2), improving access to platted lots could facilitate an increased rate of development, leading to increased traffic volumes and related noise. However, as previously mentioned, the increases are anticipated to not rise to a significant level of impact due to other factors that will limit development, including access to utilities. Combined with past, present, and reasonably foreseeable future actions, the Build Alternative would not be expected to significantly contribute to cumulative effects related to noise.

4.9.2.2.4. Mitigation Measures

The following mitigation measures would be implemented to reduce the levels of impacts from noise generation from construction of any of the Build Alternatives:

- All equipment would have sound control devices no less effective than those provided on the original equipment. All equipment would have muffled exhaust.
- All equipment would comply with pertinent noise standards of the EPA.

4.10 Visual Quality

This section describes the potential impacts of the proposed road improvements on visual quality. There are no officially designated scenic areas or attributes in the project area.

4.10.1. Affected Environment

The project area is a combination of rural development, federal land (KNWR) and Alaska native owned corporation land (Cook Inlet Region Inc.) varying from mostly natural to degraded.

4.10.2. Environmental Consequences

4.10.2.1. No Action

The visual elements of the project area would remain the same as existing conditions with the No Action Alternative.

4.10.2.2. Build Alternative

The Build Alternative would impact the visual qualities of the area very little.

4.10.2.2.1. Direct Impacts

Impacts from the Build Alternative would be minor, the ROW has been cleared of vegetation and has existed for over 35 years. The project would be constructing a road with minor fills in an area that land use is mainly rural residential or vacant, and is not designated as scenic.

4.10.2.2.2. Indirect Impacts

Indirect impacts to visual quality may occur as a result of improved access allowing for residential development and vegetation clearing of some of the platted parcels within Gray Cliff and Moose Point Subdivisions, but the impact would be minor, the remaining undeveloped properties are regulated to what was platted by the Borough.

4.10.2.2.3. Cumulative Impacts

Incremental impacts to visual quality from the Build Alternative, when added to other past, present, and reasonably foreseeable future actions, would result in minor or non-substantial cumulative impacts to visual resources.

4.10.2.2.4. Mitigation Measures

• All disturbed areas will be reseeded with native vegetation.

4.11 Air Quality

This section describes the potential impacts of the proposed road improvements on air quality. The federal government has established National Ambient Air Quality Standards to protect the public from air pollution. Designated "attainment" areas are areas that have not violated these air quality standards. Geographic areas where concentrations of a pollutant exceed the ambient air quality standards are classified as "non-attainment" areas. Areas previously designated as non-attainment that are now in compliance with air quality standards are classified as "maintenance" areas.

4.11.1. Affected Environment

The project corridor is situated within an EPA air quality "attainment" area for all regulated pollutants.

4.11.2. Environmental Consequences

4.11.2.1. No Action

The No Action Alternative would not result in any change of air quality in the area.

4.11.2.2. Build Alternative

4.11.2.2.1. Direct Impacts

Vehicle traffic on a graveled surface for the 8.1 miles to Otter Creek could produce dust during dry seasons. However, the amount of expected growth in vehicle traffic from this project is so small, it would not have measurable impacts on air quality, nor would it be expected to cause the area to be designated a non-attainment area. The project area is not listed among the U.S. EPA nonattainment areas for criteria pollutants (U.S. EPA 2010). During construction, it could be expected there be a temporary increase in exhaust and fugitive dust. These impacts would be minimized through the implementation of construction BMPs.

4.11.2.2.2. Indirect Impacts

Minor impacts to the surrounding environment would include a slight increase in the emission of air pollution, possibility of dust from the travel way migrating to areas adjacent to the travel way. However, the levels of traffic, coastal climate, and lack of sensitive locations along the road/trail will combine to minimize these affects.

4.11.2.2.3. Cumulative Impacts

Incremental impacts to air quality from the Build Alternative, when added to other past, present, and reasonably foreseeable future actions, are not expected to adversely affect regional or local air quality.

4.11.2.2.4. Mitigation Measures

The mitigation measures are recommended to minimize potential impacts to air quality during construction:

- Operate all equipment in accordance with manufacturer's recommendations to minimize emissions
- Shut down idling heavy equipment when not in use
- Implement BMPs during construction activities to mitigate fugitive dust and reduce particulate matter emissions, e.g. apply water as needed to control fugitive dust emissions
- KPB will utilize calcium chloride as part of the routine road maintenance program as a dust calming measure

4.12 Water Quality

This section describes the potential impacts of the proposed road improvements on water quality.

4.12.1. Affected Environment

Water quality data are generally unavailable for surface waters within the study area. None of the water bodies within the project corridor (or flowing into waters within the study area) are listed on the Alaska Department of Environmental Conservation Clean Water Act section 303(d) list of impaired water bodies (ADEC 2010).

4.12.2. Environmental Consequences

4.12.2.1. No Action

ORV/ATV activities and off-tracking have caused significant degradation to streams such as Leif's Creek and Otter Creek; both of which support anadromous fish runs, as well as significant degradation to wetland and upland habitats. This activity has also caused erosion, sedimentation and water quality degradation to Leif's Creek and the associated turbid runoff and sedimentation into Cook Inlet. Chronic sediment discharge into Leif's Creek, Otter Creek and Cook Inlet will

continue with the No Action Alternative. Existing risk of long-term adverse impacts to water quality associated with ATV crossings through anadromous fish streams during periods when the ground is not frozen will continue. The continued use of the unimproved trail through bogs and wetlands will also continue to intercept, concentrate, and otherwise change surface water drainages. ORV/ATV travel along the beach during low tide will continue.

4.12.2.2. Build Alternative

4.12.2.2.1 Direct Impacts

The Build Alternative will have impacts to water quality. The ecosystem's capacity for water quality treatment will be slightly reduced as a result of the loss of 14.0 acres of wetlands providing sediment filtration, nutrient uptake and other water quality functions. These impacts will be mitigated through reduced non-point pollution as a result no more off-tracking which will lessen sedimentation into Leif Creek as it discharges into Cook Inlet. Wetland surface hydrology and connectivity would be bisected by the road fill. Disconnects in wetland surface hydrology would be minimized through installation of cross-drain culverts. During construction, there would be temporary impacts to water quality as a result of filling 14.0 acres of wetlands. These impacts would be minimized through the implementation of BMPs during construction. A permanent road will compact underlying soil and reduce the soil surface area available for infiltration. Due to the expanse of similar soils in the study area, this will have a negligible effect on the recharge potential of the soils during precipitation events.

4.12.2.2.2. Indirect Impacts

Increased usage of the KSH extension would increase pollutants from auto vehicles (dust and vehicle leaks). However, traffic is still relatively low and will produce minimal pollutants.

4.12.2.2.3. Cumulative Impacts

As identified under Transportation (section 4.1) and Land Use (section 4.2), improving access to platted lots could facilitate an increased rate of development of private lots within the two subdivisions located adjacent to the KSH extension. Additional development in the area could result in water quality degradation. However, rate of development is anticipated to remain low and the Build Alternative is anticipated to result in improvements to overall water quality in the area. Combined with past, present, and reasonably foreseeable future actions, the Build Alternative would not be expected to significantly contribute to cumulative effects to water quality.

4.12.2.2.4 Mitigation Measures

- ADF&G permits have been obtained to cross two streams that are occupied by anadromous fish, as well as three other streams that contain resident fish. Currently, ORV/ATVs are crossing through the streams causing loss of habitat by degrading the bank habitat and increasing sediment load with in the corridor.
- Installing culverts and drainage mat in wetland areas as appropriate to minimize road effects on natural drainage patterns and to restore hydrologic flow currently impacted by extensive off-road vehicle use.
- Contractor will develop a Stormwater Pollution Prevention Plan (SWPPP) and BMPs would be implemented to control and prevent stormwater runoff from causing sedimentation in the wetlands, and turbidity in the open waters. Erosion control measures would be left in place until vegetation becomes established.
- No storage of fuel, vehicle fueling or maintenance would be conducted within 100 feet of water bodies.

• An Erosion and Sediment Control Plan (ESCP) will be developed during design, which will address what specific BMPs will be used on this project. The ESCP will focus first on efforts to prevent the movement of sediments and silts.

4.13 Hazardous Materials and Spills

This section describes the potential impacts of the road improvements from hazardous materials and spills.

4.13.1. Affected Environment

A review of Alaska Department of Environmental Conservation (ADEC) Contaminated Sites database indicates there are no known sites with potentially hazardous materials within the Area of Potential Affect (APE) of the project.

4.13.2. Environmental Consequences

4.13.2.1. No Action

There are no known hazardous materials sites within project construction limits, the risk of a petroleum spill from the ongoing ORV/ATV activities traveling the corridor would remain as well as potential crashes into the high-pressure transmission line that parallels the current ROW.

4.13.2.2. Build Alternative

4.13.2.2.1. Direct Impacts

Since there are no hazardous materials sites within project construction limits, the project will have no impact on hazardous materials. During construction of the Build Alternative, there would be a potential for hazardous material spills to occur. Construction contracting would require the contractor to develop a Spill Prevention Control and Countermeasures (SPCC) Plan. In the event of a hazardous material spill, the responses detailed in the spill plan would be implemented.

4.13.2.2.2. Indirect Impacts

Fuel, as well as other potentially hazardous materials, will likely be transported on the travelway and spills may occur over the 20-year life of the road. Low traffic volumes and the small quantities of fuel likely to be transported would not result in more than minimal long term risk of contamination from spills.

ADEC regulations for clean-up would be followed for any spill that might occur.

4.13.2.2.3. Cumulative Impacts

There are no known past, present or future public or private activities that are reasonably certain to occur within project area that bring the risk of contaminated or hazardous materials.

4.13.2.2.4. Mitigation Measures

- WFLHD contract specifications will require the contractor to prepare and implement a SPCC Plan during construction.
- If unexpected contamination is encountered during construction, all work in the contaminated area would be halted and the CO contacted immediately. All contaminated material will be handled and disposed of in accordance with ADEC regulations.

4.14 Social and Community

4.14.1. Affected Environment

The small residential community within the project area is home to those who value what the area has to offer, including the nearby KNWR, a rural way of life, opportunities for larger parcels of land, forest resources, recreational opportunities, solitude and quiet, wildlife viewing and more.

4.14.2. Environmental Consequences

4.14.2.1. No Action

Under the No Action Alternative, residential development Gray Cliff and Moose Point Subdivisions would likely occur at the present pace, access to recreational opportunities within the KNWR would remain limited, the nearby community of Nikiski would be unaffected.

4.14.2.2. Build Alternative

The Build Alternative will be entirely within the KPB ROW and not displace any existing residences. Construction is not expected to impact local schools, police, fire protection, access to local medical services, or local utilities.

4.14.2.2.1. Direct Impacts

In the immediate vicinity of the community of Nikiski, traffic volumes could temporarily increase temporarily during construction. During construction of the Build Alternative, residents and visitors to the area may experience brief delays or local detours. The likely material site for the road extension is outside (North) of Nikiski proper, closer to the KSH extension and associated truck hauling traffic delays would be outside of Nikiski. Project construction could provide short-term construction-related employment opportunities in the area, which could result in minor, temporary increases in sales for nearby businesses.

4.14.2.2.2. Indirect Impacts

Construction is not expected to impact schools, police, fire protection, access to medical services, or utilities in the Nikiski area. Providing year-round access will be beneficial to the community because of reliable year-round access for medical and public safety services.

4.14.2.2.3. Cumulative Impacts

Due to the isolated and rural nature of the residential developments of Gray Cliff and Moose Point, the Build Alternative, when combined with other reasonably foreseeable past, current, and future activities, is not reasonably expected to cause a long-term change to the population and community character.

4.14.2.2.4 Mitigation Measures

• KPB regularly post construction schedules and information on the agency website.

4.15 Environmental Justice

Executive Order (E.O.) 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations - was issued by President William J. Clinton in 1994. Its purpose is to focus federal attention on the environmental and human health effects of federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities.

The E.O. directs federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law. The order also directs each agency to develop a strategy for implementing environmental justice. The order is also intended to promote nondiscrimination in federal programs that affect human health and the environment, as well as provide minority and low-income communities access to public information and public participation.

Environmental justice (EJ) is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

4.15.1. Affected Environment

From 2010 census data revealed within the Borough there were 55,400 people, 18,400 households, and 12,700 families residing in the borough. The population density was 3.4 per square mile (mi²). There were 24,900 housing units at an average density of 2 per square mile (1/km²). The racial makeup of the borough was 84% white, 8% Native American, 2% Hispanic or Latino (any race), and 4% from two or more races. Black or African Americans, Asians, and Pacific Islanders each were less than 1% of the population. Just under 1% were from other races combined. 1.92% reported speaking Russian at home, while 1.74% speak Spanish. 11.4% of the population is below the poverty level. Under EO 12898 the Borough meets the criteria for a minority and low-income population.

Federal actions may create a potential EJ concern if the Federal Agency does not provide meaningful involvement opportunities to minority populations, low-income populations, tribes, and indigenous peoples during the development of the action. The KPB has been engaging the affected public, the Borough has provided project updates on their website as well as a public meeting held June 22, 2017 attended by over 30 local citizens and interested parties.

No residents or businesses would need to be displaced or relocated as a result of the project. Also, the short-term, construction related impacts and long-term impacts and benefits would affect project users on an equal basis. Opportunities for employment during project construction and the long-term road safety improvements would extend to minorities and people with low incomes in nearby communities and thus could benefit these groups. In conclusion, the Build Alternative would not result in, "... disproportionately high and adverse... effects on minorities and low-income populations."

5. Section 4(f) Evaluation/Discussion

The U.S. Department of Transportation (USDOT) Act of 1966 includes a special provision, Section 4(f), which stipulates that the FHWA and other USDOT agencies may not grant approval for a project if it uses land that is a publicly-owned park, recreation area, wildlife and waterfowl refuge, or any significant historic site unless: 1) there is no prudent and feasible alternative to the use of such land, and 2) any such program or project includes all possible planning to minimize harm to these resources.

The statute itself specifies that Section 4(f) applies when a U.S. DOT agency approves a transportation program or project that uses Section 4(f) property. The proposed project is entirely within KPB ROW and thus is not a Section 4(f) property.

6. Irreversible or Irretrievable Commitment of Resources

Irreversible commitments are those that cannot be regained, such as the extinction of a species, the expenditure of federal funds, or the removal and use of fossil fuels. Irretrievable commitments are those that are lost for a period of time, such as the loss of production, harvest, or use of renewable resources. Fossil fuels, labor, and construction materials such as aggregate would be irreversibly expended by construction of the proposed project. Labor and fossil fuels would be consumed during operation of construction equipment for grading, material movement, and construction activities. In addition, labor and

natural resources would be used in the fabrication and preparation of construction materials. Construction would also require an expenditure of federal funds that could not be used for any other projects.

7. Cumulative or Interrelated Impacts

Previous sections of this Environmental Assessment described the effective scale for evaluating cumulative effects associated with impacts from the Proposed Action Alternative with the impacts of other past, present, and future activities. Past actions that have had the most measurable effect on the project area include creation of the Kenai National Wildlife Refuge, construction of Leif's Creek and Otter Creek Bridges, timber harvesting, quarry development and mining, and private residential development within platted lots in the Gray Cliff and Moose Point Subdivision. Currently, there are no planned future public roadway projects in the vicinity of the KSH. The only proposed project in the vicinity is the Jacobs Ladder Trail Improvement. Other potential future actions considered in the analysis include the installation of Seven Eggs Creek north of the terminus of the KSH extension by the Kenai Watershed Forum (should funding be obtained) and development of platted undeveloped lots in the two subdivisions.

The cumulative impacts analysis identified that transportation, land use, wetlands, fish/wildlife/vegetation, and water quality were resources that could result in cumulative impacts when the project is combined with effects from past, present, and reasonably foreseeable future actions. Refer to each resource section for the analysis. Combined with past, present, and reasonably foreseeable future actions, the Proposed Action Alternative would not be expected to contribute to cumulative effects.

8. Summary of Mitigation Measures

Table 3. Summary of Mitigation Measures

Resource	Mitigation Measures
Transportation	 Signage installed and public notices locally advertised in advance of and during traffic changes to inform the public; Installation and coordination of temporary traffic control devices to minimize the impacts to motorists.
Land Use	 Any proposed land use activities will require compliance with the 2005 Kenai Peninsula Borough Comprehensive Plan
Recreation	 FHWA would coordinate with USFWS so that notices regarding KSH delays and closures can be posted on the USFWS KNWR website, in newspapers (e.g. Peninsula Clarion), etc.;
Wetlands	 Avoidance: Full avoidance of wetlands by siting the project turnarounds and all but 1 turnout in upland areas. Construction of an 18' wide one-lane road with 2:1 shoulders itself avoids additional impacts to Waters of the US that a KPB standard 28' wide two-lane road with 2.5:1 shoulders would cause. This design width exception reduces the wetland impact footprint by 4.6 acres. Fill area boundaries will be clearly delineated in the field to avoid accidental impacts from equipment operation and fill material placement. In wetlands, the Contractor may not place fill (including clearing debris), remove native material or run equipment outside the designated 40' wide construction zone.
Fish, Wildlife & Vegetation	 Limited tree cutting/clearing between May 1 and July 15 Locally native plants would be used to improve the revegetation rate. Implement all BMPs and conditions identified in US Army Corps of Engineers Permit POA-2015-460 and Alaska Department of Fish & Game Habitat Permits. All equipment working in project area would be free of weed seed. Precautions would be taken to prevent the introduction and spread of weeds caused by moving weed-infested sand, gravel, borrow, and fill material. In addition to Leif's Creek and Otter Creek, two other un-named streams support anadromous fish and 4 other streams support resident fish. All stream crossings will be designed to meet Alaska Department of Fish and Game (ADFG) fish passage criteria.
Cultural and Historic Resources	 If previously unknown archeological materials or human remains are discovered during the course of construction, all activities will cease in the immediate area of the finds pending further recommendations from the FHWA in consultation with the Alaska OHA.

Soils and Geology	 Topsoil would be conserved and stockpiled for later use to enhance revegetation success. Appropriate sediment and erosion control BMPs would be put into place before construction begins and would be maintained in working order throughout the construction period and until vegetation is established.
Noise	 All equipment would have sound control devices no less effective than those provided on the original equipment. All equipment would have muffled exhaust. All equipment would comply with pertinent noise standards of the EPA.
Visual Quality	All disturbed areas will be reseeded with native vegetation.
Air Quality	 Operate all equipment in accordance with manufacturer's recommendations to minimize emissions. Shut down idling heavy equipment when not in use. Implement BMPs during construction activities to mitigate fugitive dust and reduce particulate matter emissions, e.g. apply water as needed to control fugitive dust emissions. Utilize calcium chloride as part of the routine road maintenance program as a dust calming measure.
Water Quality	 ADFG permits have been obtained to cross two anadromous streams; Sta 54+45 and 348+90. Currently, ORV/ATVs are crossing through the streams causing loss of habitat by degrading the bank habitat and increasing sediment load with in the corridor. Installing culverts and drainage mat in wetland areas as appropriate to minimize road effects on natural drainage patterns and to restore hydrologic flow currently impacted by extensive off-road vehicle use. Contractor will develop a Stormwater Pollution Prevention Plan (SWPPP) and BMPs would be implemented to control and prevent stormwater runoff from causing sedimentation in the wetlands, and turbidity in the open waters. Erosion control measures would be left in place until vegetation becomes established. No storage of fuel, vehicle fueling or maintenance would be conducted within 100 feet of water bodies. An Erosion and Sediment Control Plan (ESCP) will be developed during design, which will address what specific BMPs will be used on this project. The ESCP will focus first on efforts to prevent the movement of sediments and silts.
Hazardous Materials and Spills	 WFLHD contract specifications will require the contractor to prepare and implement a SPCC Plan during construction. If unexpected contamination is encountered during construction, all work in the contaminated area would be halted and the CO contacted immediately. All contaminated material will be handled and disposed of in accordance with ADEC regulations.
Social and Community	• KPB regularly post construction schedules and information on the agency website.

9. Permits and Approvals

Required permits and approvals would be obtained prior to construction. The following permits and approvals are expected to be required for implementation of the Build Alternative:

- NEPA approval
- Alaska Office of History and Archaeology National Historic Preservation Act and Section 106 concurrence, File 2017-00792 September 25, 2017
- US Army Corps of Engineers Clean Water Act Section 404 revised and reissued Permit POA-2015-460-M1 October 5, 2017
- Alaska Department of Fish & Game, Permits FH 16-V-0247, 16-V-0248, 16-V-0249, 16-V-0250; issued June 29, 2016
- Kenai Peninsula Borough River Habitat Protection District Permit #11145, issued November 6, 2017
- US Fish & Wildlife Service Eagle [Incidental] Take Permit MB56715B-1, issued July 5, 2016
- Alaska Department of Environmental Conservation 401 Water Quality Certification, issued April 13, 2015
- Alaska Department of Environmental Conservation APDES permit, issued April 13, 2015

10. Coordination and Consultation

10.1. Agency Coordination

The project was originally authorized under USACE permit POA-2014-460, issued to the Apache Alaska Corporation on November 18, 2015. In the Public Notice, issued December 19, 2014, USACE made a determination of 'no effect to historic properties', and coordinated with the Alaska OHA. There were no listed or eligible properties in the vicinity of the worksite based on a cultural resource survey conducted September 24-28 and October 9, 10, and 12, 2014. As part of the process to modify permit POA-2015-460-M1 USACE reinitiated Section 106 coordination with Alaska OHA and completed consultation on September 25, 2017. OHA concurred with the determination of No Historic Properties Affected.

10.2. Tribal Coordination

As part of the federal action to evaluate and issue the original permit POA-2015-460 USACE posted the proposed action requesting public comment on the proposed project for a 30-day period from December, 2014 to January, 2015. Comment was provided by the Cook Inlet Region Incorporated (CIRI) the Alaska Native corporation representing members that are of Athabascan, Southeast Indian (Tlingit, Haida, Eyak and Tsimshian), Inpuiat, Yup'ik, Alutiiq/Sugpiaq and Aleut/Unangax descent. CIRI's comment letter was in support of the proposed project at the time (construct road extension to provide access to exploratory oil fields) and the applicant at the time (Apache Oil) had conducted adequate effort to minimize wetland impacts.

10.3. Public Involvement

The Kenai Peninsula Borough held a public meeting and Q & A session to inform the public on the Kenai Spur Extension at the Nikiski Community Recreation Center on June 22, 2017. The meeting was attended by over 30 local citizens and interested parties. KPB informed the public of this meeting through a public notice in the Peninsula Clarion as well as posting a notice to the KPB website and social media platforms. The meeting summary is attached, Appendix A. A second public meeting, held during the EA 30-day public comment period was attended by over 40 local citizens and interested parties February 8, 2018 at the Nikiski

Community Recreation Center. The public meeting was held to inform the public on the project and solicit public comment on the draft EA. KPB informed the public of this meeting through a public notice in the Peninsula Clarion. The meeting summary is attached, Appendix B.

10.4. List of Preparers

This EA was prepared by Federal Highway Administration, Western Federal Lands Highway Division, with assistance from Kenai Peninsula Borough.

- Steve Morrow, FHWA Environmental Specialist, lead author and manager of environmental compliance activities
- Seth English-Young, FHWA Environmental Specialist
- Kristin Austin, FHWA Stewardship and Oversight Manager
- Henry Knackstedt, Kenai Peninsula Borough Roads Project Manager
- Brenda Ahlberg, Kenai Peninsula Borough Community & Fiscal Projects Manager

11. References

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Attachment A

06/22/2017

Nikiski Community Recreation Center

Public Meeting Questions/Answers and Additional Information

The meeting recording is also available at www.kpb.us/NRDEXT

Meeting products: project cover sheet, project imagery, Jacobs Ladder mitigation project map, FAQs sheets, display board with online address and contact information.

KPB representatives/staff: Wayne Ogle, Assembly Member District #3; Pat Malone, Road Service Area Director; Henry Knackstedt, Roads Project Manager; Brenda Ahlberg, Community & Fiscal Projects Manager

McLane Consulting, Inc.: Gina Debardelaben, Project Engineer

Q: Why is the project not going to be bid by the mile?

A: The project will be bid by the ton due to the material needs, the wetland challenges and the possible subsidence. The contractor will be expected to assume the costs; therefore, bidding the project by ton will be less of a financial risk to the contractor than price by mile. The lower the price, the farther the road can be built.

Q: What is the main expense of the project?

A: The gravel; it is estimated that 130,000 cubic yards will be used.

Q: What is the cost for gravel per cubic yard?

A: The cost of raw versus final product is different. The cost of raw gravel (unprocessed) \$1.35 to \$2.80. The engineer's estimate for gravel cost per cubic yard may be released when the design and engineering is finalized.

Q: Is there a local gravel source that can be used for the project?

A: Preliminarily, there isn't a local site adjacent to the project big enough to provide the amount needed for the project.

- Q: Did the Apache engineering provide the match for the grant?
- A: Yes, the Apache engineering is part of the 20% match requirement.

Additional information: The U.S. Department of Transportation, Division of Western Federal Lands is the grantor of the SAFETEA-LU "Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users" grant in the amount of \$5,142,231.38, which requires a 20 percent match. The borough met the match by way of the Apache engineering and permitting products, GIS imagery, borough right of way, Leaf Creek bridge construction, and the Jacob Ladder state grant. The borough ordinance O2016-19-15, match agreement and support documents may be viewed online at https://kpb.legistar.com/LegislationDetail.aspx?ID=2859479&GUID=D815628C-B8A4-4A32-ACC3-F9BC7526E318&Options=ID[Text]&Search=

- Q: Is the \$250,000 still available from the state grant in 2002?
- A: The information was not available at the meeting; however, provided here.

Additional information: The original 1998 SAFETEA-LU allocation was \$6,000,000 which required a 20 percent match of \$1,320,000. State grant of \$250,000 was used as part of the match to complete the phase I environmental assessment (2002 State of Alaska HCS CSSB 29(FIN) am H Chapt. 61, p.41, line 10). The borough ordinance O2002-19-27 and support documents may be viewed online at

http://www2.borough.kenai.ak.us/AssemblyClerk/Assembly/Ordinances/2002/O2002-19-27.pdf

This grant was deobligated because it was not feasible to construct the project as originally intended. The remaining fund balance of \$5,142,231.38 was set aside until a project could be done in the area. Fast forward to today, and the 2017 grant agreement was released and finalized between the borough and the US Department of Transportation, Division of Western Federal Lands under the SAFETEA-LU program to construct the road extension as a mitigation project, alleviating damages to area wetlands.

Q: Is there an engineer's estimate for the overall project?

A: There is an engineer's estimate, but it is preliminary and will not been released as it may be updated after the permitting has been completed.

Q: Has the grant money been given to the borough? And is the interest going into the general fund, and will it be applied to the project also?

A: No the borough does not have full payment of the grant funds and is not collecting interest. The federal grant and the state grant are on a reimbursement basis. This means that the borough submits quarterly narrative and fiscal reports and is reimbursed for actual costs that have been approved by the grantor for payment. The borough must adhere to state and federal laws in order to receive reimbursements.

Q: Is it prudent to do a soils investigation on the project location and to locate a local gravel source? The design has taken into account the soil types in the area, so no additional soils investigation is warranted.

Q: Will you consider the borough providing the gravel?

A: The borough does have a gravel source, but has not been developed.

Additional Information: The question of gravel was presented several times throughout the meeting. Developing the borough gravel source would require additional cost and permitting separate from the road construction project. The assessment of gravel grade, quality and quantity may not produce enough material as required (estimated 130,000 cubic yards). This effort would impede the construction timeline. Any development of potential borough gravel sources is the responsibility of the bidding contractors.

Q: How many culverts will be installed? And have you considered possible flooding impacts to nearby private property?

A: There are 1,200 feet of culvert material estimated, additional arch pipes to be installed on anadromous streams, and permeable construction to allow water flow. Additional culverts will be installed as needed during construction.

Q: Who is providing project management?

A: The borough road service area in collaboration with McLane Consulting.

Q: What is the amount of the state grant to be used on the Jacob's Ladder beach access?

A: The remaining balance of \$94,651 is listed as part of the 20 percent match and will be used solely for the Jacob's Ladder portion of project construction.

Additional Information: (Note the amount was incorrectly cited during the meeting.) The borough ordinance O2013-19-01 and support documents may be viewed online at

http://www2.borough.kenai.ak.us/AssemblyClerk/Assembly/Ordinances/2013/O2013-19-01.pdf

Q: The turnouts are for vehicles to pull over?

A: Yes, and they will be constructed on upland areas.

Q: Do we have permitting to go past the design if the project is under budget?

A: The borough is limited to construct only to the proposed area which has been permitted to just beyond Otter Creek. Some road extension is possible only if it does not impact additional wetlands.

Q: What is the cost of maintaining the road?

A: The cost of road maintenance is variable depending on seasonal weather conditions. No evaluation has been performed to estimate the average maintenance cost of this road, but that is a maintenance issue not included with the design and construction phase.

Q: What will constitute improving Jacob's Ladder?

A: The trail will be ten foot wide surface with two-to-one shoulder slopes. The structural section will be 24 inches on top of textile on the uplands and 30 inches on top of textile in wetlands, using Type I gravel for upland and wetland areas.

Q: Have you considered the traffic impacts on the turnouts at the intersections of Cloudberry and Golden Rod?

A: Subdivision approaches were considered during the Apache public meetings and will be looked at again. Currently, the approaches to platted right of ways are designed at 18' widths like the north road extension.

Q: Will the Kenai Spur Highway, north of Halibouty Road be improved to handle the truck traffic?

A: This is a state road and it currently isn't on the schedule for repair or improvement.

Q: Can these funds be used for subdivision roads?

A: No, the funds are specifically for the permitted extension of Spur Highway only.

Q: Will there be preference to local hire; local contractors getting a contract like this?

A: These are federal funds and local preference is not allowed.

Q: Is this contract subject to minority hire?

A: The invitation to bid will be available to anyone.

Additional Information: Qualified bids will be accepted by sealed bid and awarded to the lowest bidder considering that the contractor is fully qualified to complete the project.

Q: Is work on Jacob's Ladder part of this (schematic)?

A: The work to be completed will be done as a separate bid schedule because the funding is separate (see state grant O2013-19-01).

Q: Is this (road project) designed like any other borough road?

A: The Road Service Area Board approved the design using the borough road standards and granted a variance to build the road 18 feet wide, which allowed for a longer buildout.

Q: What is the contractor going to do with the wood?

A: The contractor is responsible for logistics including woody debris. Specific requirements include mulching along the right of way (ROW); excavation in the upland areas; timbers may be stacked along the ROW for residential use or sold, which is the contractor's decision; wetlands will be cleared but not grubbed as the root mat provides some reinforcement.

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Attachment B

North Spur Hwy Extension Project

02/08/2018 Public Meeting - Nikiski Community Recreation Center

Questions/Answers and Additional Information

The meeting recording is also available at <u>www.kpb.us/NRDEXT</u>

Meeting products: environmental assessment, project cover sheet, project imagery, Jacob Ladder mitigation project map, project design/engineering, FAQs sheets, display board with online address and contact information.

KPB representatives/staff: Wayne Ogle, Assembly Member District #3; Charlie Pierce, Mayor; John Quick, Chief of Staff; Scott Griebel, Interim Road Service Area Director; Henry Knackstedt, Roads Project Manager; Brenda Ahlberg, Community & Fiscal Projects Manager

McLane Consulting, Inc.: Gina Debardelaben, Project Engineer

Federal Highways / Western Federal Lands: Steve Morrow, Environmental Protection Specialist

Knackstedt provided a project description and brief update (see "Executive Summary 07/05/17" online). All permits have been completed and approved for the project. The environmental assessment process is currently in the public comment period. Make comments online at https://flh.fhwa.dot.gov/projects/ak/kenai/. Comment period closes 02/15/18.

Morrow provided a brief explanation of Western Federal Lands' (WFL) role in the project, citing that they provide grant oversight to ensure that the project scope of work, permitting and costs are eligible for reimbursement. He stated that WFL holds the funds, not the borough, whereas the borough provides regular reports and requests for reimbursement. However, the borough has project oversight and responsibility for extending the road under the KPB Road Service Area powers. Morrow closed with the need to comment on the updated environmental assessment (EA). The original EA completed by Apache Corporation was for their development project; however under the borough's scope, the project is for public access and use. Therefore, the EA had to be updated to reflect public purpose versus private industry. The public is encouraged to provide comments; comment period ends 02/15/18.

NOTE: Reference questions that were previously answered at the 06/22/17 for additional information.

Q: Are there pullouts and will they be located only on the beach side of the road?A: The pullouts will vary in location and based upon the best topography to build them. They

won't be restricted to the beach side (west) side of the right of way.

Q: Will there be preference to local hire; local contractors getting a contract like this? A: These are federal funds and local preference is not allowed. Any qualified contractor can bid on the project.

Q: How far into Gray Cliff subdivision will the road go?

A: The project extends to the Warmwood Drive intersection with the Kenai Spur Highway which is approximately 2.5 miles south of the northern boundary of Gray Cliff Subdivision, and southern boundary of Moose Point Subdivision.

Q: Will there be parking near Jacobs Ladder access?

A: No; the design is to improve access and to mitigate damages to Otter Creek and adjacent wetlands.¹

Q: What happens five years after the project is completed and there are possible flooding issues? A: After completion, the road drainage or potential flooding impediments will be evaluated and additional culverts installed. Since the project will be constructed over a two-year period, any drainage issues are anticipated to be identified while still under contract.

Q: Will the road be maintained? How do you define "maintained"?

A: The road will be maintained by the Road Service Area to ensure emergency response access. However, it will not be maintained at the same level of scheduled maintenance compared to populated subdivisions.

Q: Has there been any thought to installing security systems or will the troopers be patrolling the road?

A: The borough does not have law enforcement powers, nor are any borough roads under security surveillance.

Q: Will the Kenai Spur Highway, north of Halibouty Road be improved to handle the truck traffic?

A: This is a state road and the AK Department of Transportation & Public Facilities is responsible for maintenance.

¹ The response was specific to Jacobs Ladder itself. There will be no pullouts or parking on Jacobs Ladder. Jacobs Ladder connects to the KSH extension, at that location on the KSH extension there will be one of the three large (8,000 ft²) turnouts.

Kenai Spur Highway Extension Environmental Assessment

Q: Have additional parking pads been incorporated into the project?

A: No; the project is restricted to building the road and pullouts within the existing borough right-of-ways only. Future construction equipment will likely need to utilize the road or approaches for staging until intersecting roads or driveways are constructed. The approaches to subdivision roads were limited to 30' by this project particularly for limiting impacts to wetlands.

Q: What is the deadline to submit comments on the environmental assessment study? A: February 15, 2018; comments may be submitted at <u>www.kpb.us/NRDEXT</u>.

Q: Have you asked the local oil companies to contribute financially to the project? A: No.

[Reference the 06/22/17 Public Meeting Minutes for FAQs regarding project funding or historical funding.]

Q: Will Leif Creek Bridge be widened?

A: No; the transitions will be cut and filled to accommodate the approaches.

Q: Will more than one contractor be working on the job?

A: There will be one primary contractor for the entire job.

Q: Will ATVs or snow machines be cited for being on the road after it is finished? A: The borough does not have policing powers; however, users will be expected to adhere to state laws regarding public safety. [This question was asked after the meeting was adjourned.]

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