Alaska District
U.S. Army Corps of Engineers

Environmental Resources Section

Public Notice

JUN 1 8 2018

Date _____ Identification No. ER-18-003
Please refer to the identification number when replying.

The U.S. Army Corps of Engineers (Corps) has prepared an environmental assessment (EA) and finding of no significant impact (FONSI) for the following project:

Construction of an Electrical Feeder at the Chena River Lakes Flood Control Project, North Pole, Alaska

The Alaska District proposes to construct an aerial power line feeder to replace the underground electrical feeder powering the Outlet Control Works at the Chena River Lakes Flood Control Project, near North Pole, Alaska. The new electrical feeder will extend the node on Repp Road another 2.6 miles and require the installation of approximately 41 power poles. The majority of the right-of-way has been previously cleared of vegetation, but about 2,400 feet of the eastern end of the right-of-way remains forested. A 30-foot wide right-of-way will result in 3.1-acres of additional vegetation clearing.

The proposed project, alternatives, and potential environmental impacts are described in the enclosed EA. The EA is available for public review and comment for 30 days from the date of this public notice. The EA and primary supporting documents may be viewed on the Alaska District's website at: www.poa.usace.army.mil. Click on the Reports and Studies button, look under Documents Available for Review, and click on the Civil Works link.

To request a printed copy, email:matthew.w.ferguson@usace.army.mil or send your request to the address below:

U.S. Army Corps of Engineers, Alaska District

ATTN: CEPOA-PM-C-ER (Ferguson)

P.O. Box 6898

Joint Base Elmendorf-Richardson, Alaska 99506-0898

Comments on the EA and proposed project may be sent to the email or postal address.

Notice is hereby given that the Corps is applying for State Water Quality Certification from the Alaska Department of Environmental Conservation (ADEC). ADEC may certify there is a reasonable assurance this project and any discharge that might result will comply with the Clean Water Act, Alaska Water Quality Standards, and other applicable State laws. ADEC may also deny or waive certification.

Any person desiring to comment on this project with respect to Water Quality Certification may submit written comments to ADEC at the address below by the expiration date of the Corps of Engineer's Public Notice.

Alaska Department of Environmental Conservation

WDAP/401 Certification

555 Cordova Street

Anchorage, AK 99501-2617

Please contact me at (907) 753-2711 or at the above email and postal addresses if you have any questions or need additional information about the proposed project.

Matt Ferguson

Biologist, Environmental Resources Section

US Army Corps of Engineers
Alaska District

Environmental Assessment and Finding of No Significant Impact

Construct New Electrical Feeder Line to the Chena River Lakes Flood Control Project Outlet Control Works

June 2018

FINDING OF NO SIGNIFICANT IMPACT

In accordance with the National Environmental Policy Act of 1969, as amended, the U.S. Army Corps of Engineers, Alaska District (USACE) has assessed the environmental effects of the following action:

Construct New Electrical Feeder Line to the Chena River Lakes Flood Control Project Outlet Control Works

The Alaska District proposes to construct an aerial power line feeder to replace the underground electrical feeder powering the Outlet Control Works at the Chena River Lakes Flood Control Project, near North Pole, Alaska. The new electrical feeder will extend the node on Repp Road another 2.6 miles and require the installation of approximately 41 power poles. The majority of the right-of-way has been previously cleared of vegetation, but about 2,400 feet of the eastern end of the right-of-way remains forested. A 30-foot wide right-of-way will result in 3.1-acres of additional vegetation clearing.

This action has been evaluated for its effects on potentially significant resources, including fish and wildlife, vegetation, wetlands, threatened or endangered species, marine resources, and cultural resources. No significant short-term or long-term adverse effects were identified.

This USACE action complies with the National Historic Preservation Act, the Endangered Species Act, the Clean Water Act, the Magnuson-Stevens Fishery Conservation and Management Act, and the National Environmental Policy Act. The completed environmental assessment supports the conclusion that the action does not constitute a major Federal action significantly affecting the quality of the human and natural environment. An environmental impact statement is therefore not necessary for the Alaska District's proposed alterations to the USACE project at the Chena River Lakes Flood Control Project.

_____ _____

Michael S. Brooks Date
Colonel, U.S. Army
Commanding

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Environmental Assessment for the Construction of a New Electrical Feeder at the Moose Creek Dam

1.0 PURPOSE AND NEED

1.1 Introduction

This environmental assessment (EA) has been prepared to evaluate the potential effects of constructing a new electrical feeder line at the Chena River Lakes Flood Control Project near North Pole, Alaska. The Chena River Lakes Flood Control Project was constructed in the 1970s to prevent flood damages to the downstream area, including the cities of North Pole and Fairbanks. It is an operational flood control project and is the subject of near-constant maintenance and upgrades to improve the operation and effectiveness of the project.

The Chena River Lakes Flood Control Project, commonly referred to as “Moose Creek Dam”, is located southeast of the City of North Pole, Alaska, and approximately 15 miles east-southeast of the City of Fairbanks, Alaska. The dam is approximately 40 river miles upstream of the Chena River’s confluence with the Tanana River. Figure 1 shows the Dam’s location in relation to major rivers and surrounding communities.

The central feature of the Chena River Lakes Flood Control Project is the Moose Creek Dam, a 7.5-mile long dam located in North Pole, Alaska. The dam consists of an earth-filled embankment and a concrete control works with four gated bays to regulate flow on the Chena River. In non-operational mode, the floodway is dry, and the Chena flows unregulated through the control structure. During operation, gates are lowered to reduce flow through the control works, pooling water upstream of the dam. When the pool reaches an elevation of 507.1 feet North American Vertical Datum of 1988 (NAVD88), excess waters flow south into the Tanana River. Diverting water reduces flood risks to the cities of Fairbanks and North Pole and adjacent downstream areas.

The primary purpose of the Chena River Lakes Flood Control Project is to provide flood risk reduction and flood damage reduction for the downstream areas, including the City of Fairbanks, North Pole, Fort Wainwright cantonment area, and unincorporated areas in the vicinity. Much of the greater Fairbanks area is in the floodplains of the Chena and Tanana rivers.

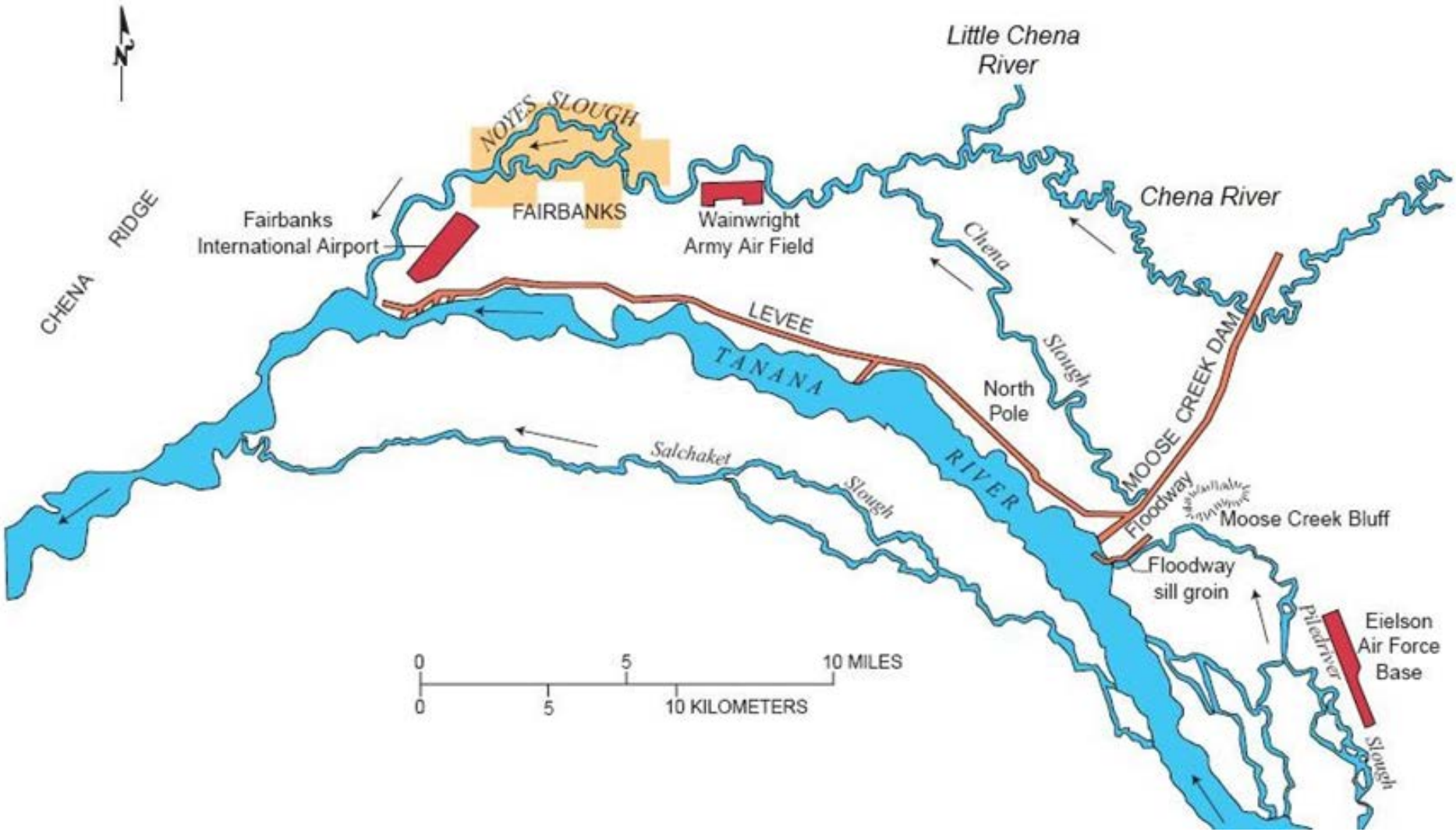

Figure 1. Overview of the Moose Creek Dam vicinity

1.2 Project Description

The Alaska District proposes to construct a three-phase aerial power line from the end of the existing node on Repp Road, North Pole to the Outlet Control Works. (Figure 2) Assuming an average pole spacing of 330 feet, the 2.6-mile power line could require as many as 45 poles to support the power line. About 2,400 feet of the east end of the proposed alignment would require initial clearing for the right of way and about 2,000 feet of the west end of the alignment would require supplemental clearing for the right-of-way; the rest of the alignment would share a previously cleared right-of-way. Vegetation clearing would take place in the winter of 2018-2019, and construction would occur during the summer of 2019. The feeder alignment has been designed to avoid impacts to wetlands and minimize vegetation clearing. Vegetation clearing would be conducted in the winter to minimize impacts to migratory birds.

1.3 Purpose and Need for the Action

The Alaska District proposes to upgrade in fiscal year 2019 the electrical supply infrastructure of the Outlet Control Structure at the Chena River Lakes Flood Control Project (Moose Creek Dam) by constructing a 2.6-mile-long aerial electrical feeder to replace the outdated underground electrical line in order to improve reliability and relieve maintenance concerns.

Figure 2. Proposed electrical feeder alignment

2.0 ALTERNATIVES

2.1 No-Action Alternative

The no-action alternative would forgo the proposed improvements to electrical transmission at the Chena River Lakes Flood Control Project.

2.2 Action Alternative

The preferred alternative is to construct the electrical feeder line supplying power to the Outlet Control Works.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Biological Resources

Biological resources in the Chena River Lakes Flood Control Project area are typical of Interior Alaska and include vegetation, mammals, fish, and birds

3.1.1 Affected Environment

Vegetation

Vegetation in the project area is fairly typical of Interior Alaska and has been impacted from the construction and operation of the Chena River Lakes Flood Control Project since construction began in 1973. Land cover has been mapped to 30-meter (98.4 feet) resolution by the Alaska Center for Conservation Science, University of Alaska (Figure 3). The project area contains the following types of plant communities, as described the Alaska Vegetation Classification (Viereck et al. 1992):

- Bareground >50%
- White Spruce or Black Spruce (Open)
- Deciduous Forest (Open)
- Low *Betula nana*-Low Willow
- Herbaceous (Mesic) >20%
- Tall Shrub
- Deciduous Forest (Closed)
- Dwarf Shrub-Lichen
- Dwarf Shrub
- Low Shrub-Lichen
- White Spruce or Black Spruce/Lichen (Open)
- White Spruce or Black Spruce-Deciduous Forest (Open)
- White Spruce or Black Spruce-Deciduous Forest (Closed)

Fish.

Intensive fish collections from above and below the Chena River Lakes Flood Control Project (USACE 1999) and earlier collections (Van Hulle; 1968, Walker 1983, and USFWS, 1984) identified the following species:

- Chinook salmon (*Oncorhynchus tshawytscha*)
- Chum salmon (*Oncorhynchus keta*)
- Coho salmon (*Oncorhynchus kisutch*)
- Arctic lamprey (*Lethenteron camtschaticum*)
- Lake chub (*Couesius plumbeus*)
- Arctic grayling (*Thymallus arcticus*)
- Longnose sucker (*Catostomus catostomus*)
- Round whitefish (*Prosopium cylindraceum*)
- Humpback whitefish (*Coregonus oidschian*)
- Broad whitefish (*Coregonus nasus*)
- Least cisco (*Coregonus said*)
- Sheefish (*Stenodus leucicthys*)
- Northern pike (*Esox lucius*)
- Burbot (*Lota lota*)
- Slimy sculpin (*Cottus cognatus*)
- Nine spine stickleback (*Pungitius pungitius*)

Three of those species, Chinook salmon, chum salmon, and Arctic Grayling are of particular importance in the biology of the Chena River and are highly important in the Tanana River system fishery. Arctic grayling are comparatively large, are abundant in the river, are important predators, and are highly prized in the recreational fishery. Both salmon species transport important nutrient sources into the system.

Mammals

Most vertebrate species indigenous to central Alaska can be found in the Chena River Lakes Flood Control Project flood control project area. Game species found in the area are managed by the Alaska Department of Fish and Game (ADFG). The ADFG monitors these species to determine population status, reproductive success, harvest, and home ranges. ADFG also sets bag limits and seasons for these species.

Large mammals in the area include black bear, grizzly bear, moose, and caribou. The Chena River Lakes Flood Control Project is within Game Management Subunit 20B, which consists of most of the road system outside Fairbanks north of the Tanana River (ADFG 2011). The moose population in Subunit 20B is growing rapidly and increased from 12,000 to 20,000 moose between 2001 and 2009.

Numerous species of furbearers inhabit the Chena River Lakes Flood Control Project area. These include wolverines, coyotes, lynx, red fox, pine marten, wolves, snowshoe hare, and red squirrel. Other species include muskrat, beaver, and four species of weasel. River otter exist, but they are not common.

Known small mammals include five vole species, two lemming species, two species of mice, and four species of shrew. The little brown bat is found in wooded areas and in abandoned buildings.

The following mammalian species could be present in the project area:

- Moose (*Alces alces*)
- Gray wolf (*Canis lupus*)
- Brown bear (*Ursus arctos*)
- Black bear (*Ursus americanus*)
- Beaver (*Castor canadensis*)
- Caribou (*Rangifer tarandus granti*)
- Coyote (*Canis latrans*)
- Ermine (*Mustela ermine*)
- Little brown bat (*Myotis lucifugus*)
- Red fox (*Vulpes vulpes*)
- Snowshoe hare (*Lepus americanus*)
- Lynx (*Lynx canadensis*)
- Hoary marmot (*Marmota caligata*)
- American marten (*Martes americana*)
- Mink (*Neovison vison*)
- Muskrat (*Ondrata zibethicus*)
- River otter (*Lutra canadensis*)
- Porcupine (*Erethizon dorsatum*)
- Arctic ground squirrel (*Spermophilus parryii*)
- Northern flying squirrel (*Glaucomys sabrinus yukonensis*)
- Red squirrel (*Tamiasciurus hudsonicus*)
- Meadow vole (*Microtus pennsylvanicus*)
- Red-backed vole (*Myodes rutilus*)
- Wolverine (*Gulo gulo*)

Habitat along the dam is segmented and disturbed by project features, roads, bike paths, and other structures and facilities. This is likely to diminish substantially its value as habitat for larger mammals. Moose, wolf, bear, fox, lynx, and coyote move through this habitat regularly, but its use does not appear to be of great importance or of more than moderate intensity for those species.

Birds

At least 70 different species of songbirds, possibly 19 species of raptors, 5 species of grouse, more than a dozen species of waterfowl, and many species of marsh and shorebirds are present at least seasonally in the Chena River Watershed (USACE 1997). Most of those species are present at least occasionally in the Chena River Lakes Flood Control Project area. A bird survey in 2005 by the Alaska Bird Observatory identified three species that were of particular interest: Townsend's warbler, rusty blackbird, and Hammond's flycatcher. Those three were identified in brushy habitat near ponds/sloughs on the floodway closer to Moose Creek Bluff. The USFWS guidance regarding land clearing timing for the Interior region of Alaska recommends vegetation clearing be conducted outside of the May 1-July 15 nesting period. (USFWS 2017)

A review of the USFWS Information for Planning and Conservation portal indicated nine species of migratory birds or birds protected by the Bald and Golden Eagle Protection Act that could potentially be affected by the proposed activity:

- Bald eagle (*Haliaeetus leucocephalis*)
- Golden eagle (*Aquila chrysaetos*)
- American golden-plover (*Pluvialis dominica*
- Fox sparrow (*Passerella iliaca*)
- Lesser yellowleg (*Tringa flavipes*)
- Olive-sided flycatcher (*Contopus cooperi*)
- Rusty blackbird (*Euphagus carolinus*)
- Short-eared owl (*Asio flammeus*)
- Solitary sandpiper (*Tringa solitaria*)
- Upland sandpiper (*Bartramia longicauda*)
- Whimbrel (*Numenius phaeopus*)

Any activity that results in a take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

3.1.2 Environmental Consequences of the Preferred Alternative

Vegetation

The construction of the proposed feeder line would require vegetation clearing in the right-of-way in order to provide access for construction. This right-of-way would be maintained in a cleared condition in order to provide maintenance access and prevent the vegetation from interfering with the power line (Figure 3).

Most of the alignment is currently cleared, but the eastern section beginning with the South Seepage Collector Channel crossing and ending at the existing pole near the Outlet Control

Works would involve new clearing. This section is about 2,500 feet long and would be cleared to a width of 30 feet, an area of about 1.7 acres. This section is forested and the dominant vegetation community is closed deciduous forest. Paper birch is likely the climax tree species in this area, with an open understory made up of prickly rose and bunchberry. Some open needleleaf forests would also be impacted; these communities are likely represented by white or black spruce depending on the soil moisture and the understory is generally made up of ericaceous species like Labrador tea and lingonberry.

Additional vegetation clearing would also be conducted in the western portion of the feeder alignment to create the right-of-way between the privately owned parcel and the South Seepage Collector Channel. This stretch of feeder alignment is about 2,000 feet long and has been previously impacted by an existing trail. The electrical feeder would share the same alignment as the trail, but would likely require some additional clearing to reach the 30-foot cleared width required for aerial cable construction and maintenance. This would result in as much as 1.4 additional acres of vegetation clearing. However, an unknown amount of clearing has been conducted for the existing trail, so much of the new clearing would be of pioneering successional stage vegetation with the potential for more mature communities to be impacted on the margin of the right-of-way. The vegetation in this area is about 2/3 closed deciduous forest and 1/3 scrub.

The construction of a 2.6-mile-long electrical feeder line would require the clearing of about 1.7 acres of forest in the easternmost 1/2 mile of the alignment and 1.4 acres of forested and scrub community in the western portion to create a 30-foot-wide right-of-way. The loss of 3.1 acres of vegetation would be a permanent impact of the project, but it would be offset by the creation of nearly 1 mile of additional woodland fringe habitat in the eastern portion of the alignment. Forest fringe already exists in the west due to the existence of a trail on the feeder route.

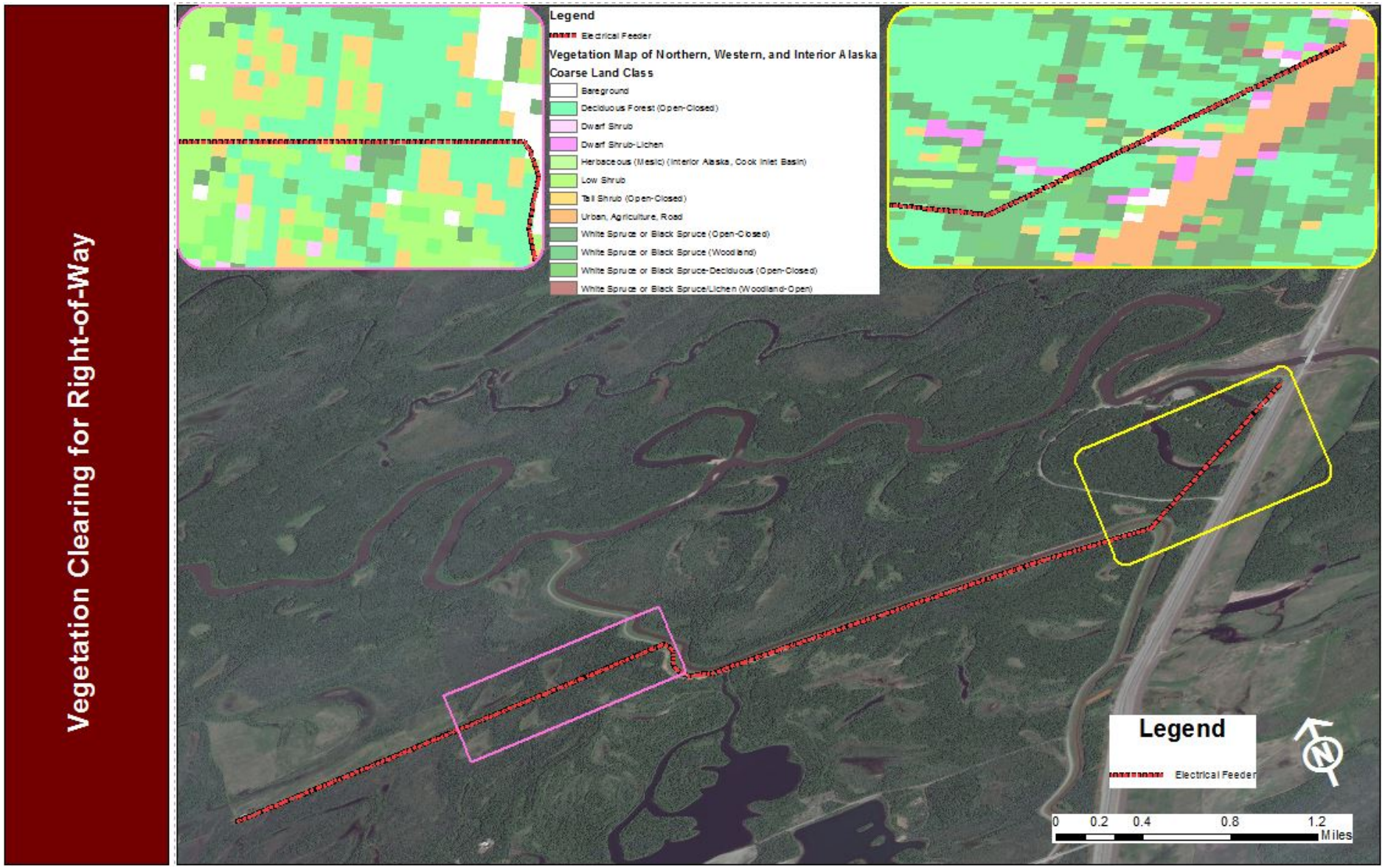

Figure 3. Vegetation clearing in the eastern (yellow inset) and western (lavender inset) reaches of the feeder alignment.

Wildlife

Vegetation clearing would be performed in the winter time to enable access and prevent impacts to nesting birds. Mammals would be temporarily displaced during construction, and a negligible amount of habitat would be lost, but abundant surrogate habitat exists nearby and the project is not expected to constitute a measurable impact to mammals or their habitat.

Fish

The feeder would not require the construction of any power poles in waterbodies due to the ability of the feeder to span all stream crossings without in-water support. The South Seepage Collector Channel would be crossed by the feeder, but does not support salmon according to the ADFG's Anadromous Waters Catalog (AWC). The proposed project would not impact fish.

3.1.3 Environmental Consequences of the No-Action Alternative

The No-Action Alternative would not result in any impacts to biological resources.

3.2 Land Use

3.2.1 Affected Environment

The preeminent land use of the Chena River Lakes Flood Control Project area is flood risk management. Details regarding the management and operation of the Chena River Lakes Flood Control Project are classified "For Official Use Only" (FOUO) and will not be disclosed in this EA. Recreation is a subordinate use and subject to interruption from required maintenance and construction projects at the Chena River Lakes Flood Control Project.

Recreation

The Chena River Lakes Flood Control Project is an important recreational site for residents and visitors to Interior Alaska. The site is home to a 260-acre lake formed from the borrow pit excavated during construction of the Chena River Lakes Flood Control Project and a river park meandering along 4 miles of the Chena River. Its grounds are also used for personal use hunting and fishing, and for training and education functions. Using annual project visitation data obtained from the USACE's Operation and Maintenance Business Information Link (OMBIL), the average annual visitation during 2012 was approximately 171,000 visits, totaling 181,000 annual visitor days. Applying the Unit Day Value methodology (EGM15-03), the benefit annually from recreation visitation is estimated to be $1.6 million. Similar recreation benefits are expected in the future.

3.2.2 Environmental Consequences of the Preferred Alternative

The construction of the proposed project would have a beneficial impact on the primary land use of the area; flood risk management. This beneficial impact would be realized through the improved reliability and maintenance of the Outlet Control Works electrical power supply. There

could be a minor temporary disruption to the recreational use of the campground as the power line crosses the campground access road.

3.2.3 Environmental Consequences of the No-Action Alternative

Under the No-Action Alternative, land use would continue in its present manner, with potential for flood risk management impacts if the existing underground power line fails or otherwise requires maintenance during a high-water event.

3.3 Air Quality and Noise

3.3.1 Affected Environment

Air Quality

Fairbanks is particularly susceptible to air quality problems during the winter due to increased heating requirements combined with temperature inversions during cold weather. Surrounded by hills on three sides, temperature inversions can trap a layer of cold air close to the ground. Even relatively small amounts of pollution can accumulate to unacceptable levels over periods of days or even weeks at a time.

In December 2009, an expanded segment of the Fairbanks North Star Borough was designated as a nonattainment area due to violations of recently promulgated national ambient air quality standards (NAAQS) for particulate matter smaller than 2.5 micrometers in diameter (PM2.5) in the city of Fairbanks. The EPA's air quality designations are based on the most recent 3 years of air quality monitoring data, recommendations by the states and tribes, and other technical information. The PM2.5 nonattainment area boundaries extend outside the city and are illustrated in Figure 4. The Chena River Lakes Flood Control project and the proposed electrical feeder are within the boundary of the PM2.5 nonattainment area.

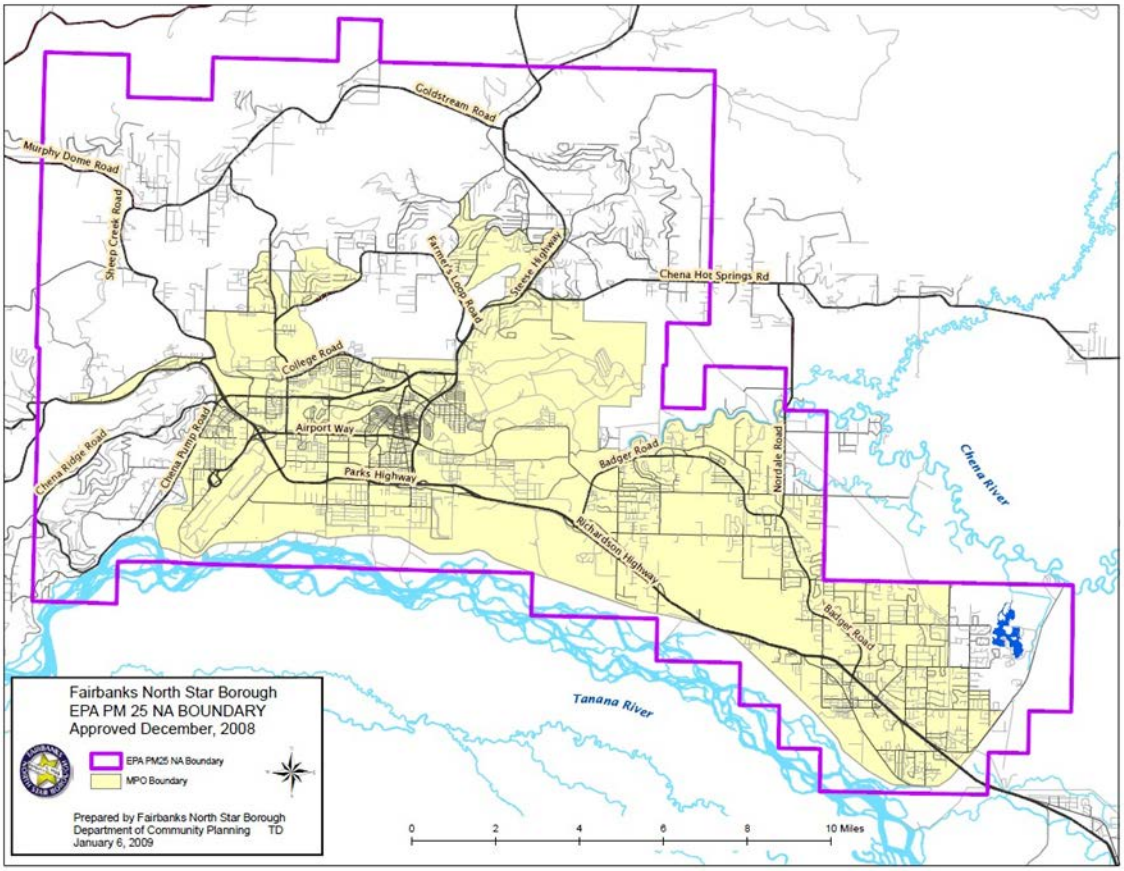

Figure 4. Fairbanks North Star Borough PM2.5 nonattainment boundary

Noise

Due to the relatively low level of development in the vicinity of the dam, ambient noise levels are predicted to be fairly low. There are no significant noise producing activities within 1/2 mile of any component of the proposed action; however, there are three small airstrips and the Richardson Highway within 6.2 miles of the outlet control structure. The Chena River Lakes Flood Control Project embankment is over 4 miles from the maximum extent of Eielson Air Force Base noise contours exceeding 65 dB, the lowest level of emanation measured by the Fairbanks North Star Borough Community Planning Department's Joint Land Use Study (JLUS). Fort Wainwright's Ladd Army Airfield 65 dB noise contour ends over 9 miles from the dam.

3.3.2 Environmental Impacts of the Preferred Alternative

Air Quality

Vegetation in the feeder alignment would be removed using a masticating drum hydro-ax or similar equipment to mulch standing small trees and shrubs onsite. Trees larger than 6 inches in diameter would be cut with chainsaws and made available to the public for use as firewood.

Wood smoke is known to be a primary contributor to PM2.5 in the Fairbanks area, so this wood could result in an increase in the amount of particulate generated from biomass combustion. The

firewood generated by the vegetation clearing would be subject to FNSB's Air Quality Comprehensive Plan and require moisture content of 20% or less in order to be suitable for residential combustion, among other mitigative measures. Compliance with FNSB's Air Quality Comprehensive Plan would result in less than significant impacts to air quality from the proposed project.

Noise

The noise produced from vegetation clearing and power pole installation would temporarily elevate noise levels in the immediate area. These activities would occur in areas that periodically are exposed to elevated noise levels from vehicular traffic, aircraft, and construction activities, and the temporary impacts to noise would not be significant.

3.3.3 Environmental Impacts of the No-Action Alternative

The No-Action Alternative would not incur any air quality impacts.

3.4 Water Quality

3.4.1 Affected Environment

The Chena River is not fed by glacial runoff, and turbidity is relatively low. Principal water quality issues are associated with the natural presence of elements from mineralization. Past mining probably has made metals more available to the system. Arsenic, barium, chromium, and zinc concentrations were relatively high in sediments sampled in the lower Chena River (USACE 1998).

The Chena River Lakes Flood Control Project and operation of the project do not appreciably affect Chena River water quality, although sediments may settle out of water impounded during flood events. Before human development in the Fairbanks area, floodwaters of the Tanana and Chena rivers comingled in their shared floodplains and periodically filled remnant channels left by meandering rivers. Silt and bedload material would have been introduced into the lower Chena River during those events. Levees, slough blocks, and drainage modifications now limit Tanana River incursions into the lower Chena River.

The Chena River in the project area does not receive water from the Tanana River except when Tanana River elevation exceeds the control sill elevation of 507.1 feet NAVD88, a 100-year flood event for the Tanana. Any nutrient benefit it may have gained from Tanana River sediment is lost, but light penetration for photosynthesis and sight feeding by fish and invertebrates is unimpeded by Tanana River suspended solids, and aquatic bottom habitat is not clogged with silt. Exclusion of Tanana River water may have benefited both salmon and grayling.

3.4.2 Environmental Consequences of the Preferred Alternative

The construction of an electrical feeder line would involve ground disturbing activities, and potential fugitive sediments could have a negative impact on water quality in neighboring water bodies such as the Chena River. The utilization of best management practices such as the stabilization of disturbed ground and using the smallest auger bit necessary for an adequate sized hole would minimize the impacts of the proposed project on water quality. A certificate of reasonable assurance would be required from the Alaska Department of Environmental Conservation for the discharge of fill material into wetlands in order to prevent unacceptable degradation to water quality.

3.4.3 Environmental Consequences of the No-Action Alternative

The No-Action Alternative would not incur any impacts to water quality unless the existing underground feeder fails during a high-water event and results in an uncontrolled release of the pool.

3.5 Wetlands

3.5.1 Affected Environment

Pockets of palustrine wetlands occur within the project area: emergent, scrub-shrub, and forested. Considering the high hydraulic conductivity of the soils in the area, it is likely that all the wetlands in the area share a shallow subsurface connection with the Chena River and are waters of the United States. Palustrine wetlands provide many important values for people and wildlife, including flood flow alteration, wildlife habitat, production of organic material, biogeochemical cycling, and water purification.

Palustrine wetlands in the project area are typically seasonally saturated due to the effects of seasonal frost on drainage, have relatively low vegetation diversity, and feature an appropriate geomorphic position. Resin birch, various willow species, and black spruce are common in the tree and scrub stratum. Herbaceous cover is often low, except in sedge meadows, and bryophytes are abundant. Soils are usually overlain by a robust partially decomposed organic layer, and the soil profile is often mottled with reduced iron concentrations due the water table fluctuating with seasonal frost.

3.5.2 Environmental Consequences of the Preferred Alternative

The electrical feeder alignment has not been surveyed for the presence or distribution of wetlands. The National Wetlands Inventory (NWI) provides reconnaissance level mapping based on aerial photography interpretation regarding the distribution of wetlands. NWI mapping was applied to the proposed feeder alignment in order to determine the impact of the project on wetlands (Figure 5).

Wetlands would be cleared of vegetation in the west-central reach of the alignment in order to provide a 30-foot-wide right-of-way. Most of the vegetation clearing in this section has been done in the past for the existing trail, and the remaining clearing would be conducted in the winter when the ground is frozen and impacts to wetlands would be minimized.

Electrical feeder support pole installation would involve the use of an auger to dig a cylindrical hole to the requisite depth and subsequent backfilling of the hole with the side-cast material after the placement of the pole. Poles would be sited in order to minimize the impact to wetlands; the 330-foot span capability would enable the majority of mapped wetlands to be crossed without the need to place support poles in wetlands. The intersection of the feeder line with the palustrine forested/scrub wetland community immediately east of the cleared area is the only portion of the alignment that would require the installation of support poles in mapped wetlands. This section of electrical feeder is approximately 1,000 feet long and could result in the installation of three support poles in mapped wetlands.

In order to reduce the impact of the proposed project on wetlands, any excavations in wetlands for the placement of poles would be the minimum size necessary. The vegetative mat from the excavated area would be removed intact, to the extent practicable, prior to digging the hole. This vegetative mat would be placed on geotextile fabric or similar in a shaded area during construction, to be replaced around the base of the pole after backfilling in order to re-establish native vegetation. Temporarily side-cast material would be confined and returned to the excavation in less than 90 days. Any exposed areas would be stabilized immediately upon completion of the utility line crossing of the wetland. Appropriate soil erosion and sediment controls would be used and maintained in effective operating condition during construction.

The Alaska District analyzed the proposed discharge in accordance with the Clean Water Act 404(b)(1) guidelines (Appendix B), and determined the construction of an electrical feeder line to supply the Chena River Lakes Flood Control Project Outlet Control Works with power is not contrary to the public interest. When considered with the avoidance and minimization efforts implemented by the Alaska District, and applicable best management practices, the proposed project’s impacts to wetlands would be less than significant.

3.5.3 Environmental Consequences of the No-Action Alternative

The No-Action Alternative would not incur any new impacts to wetlands.

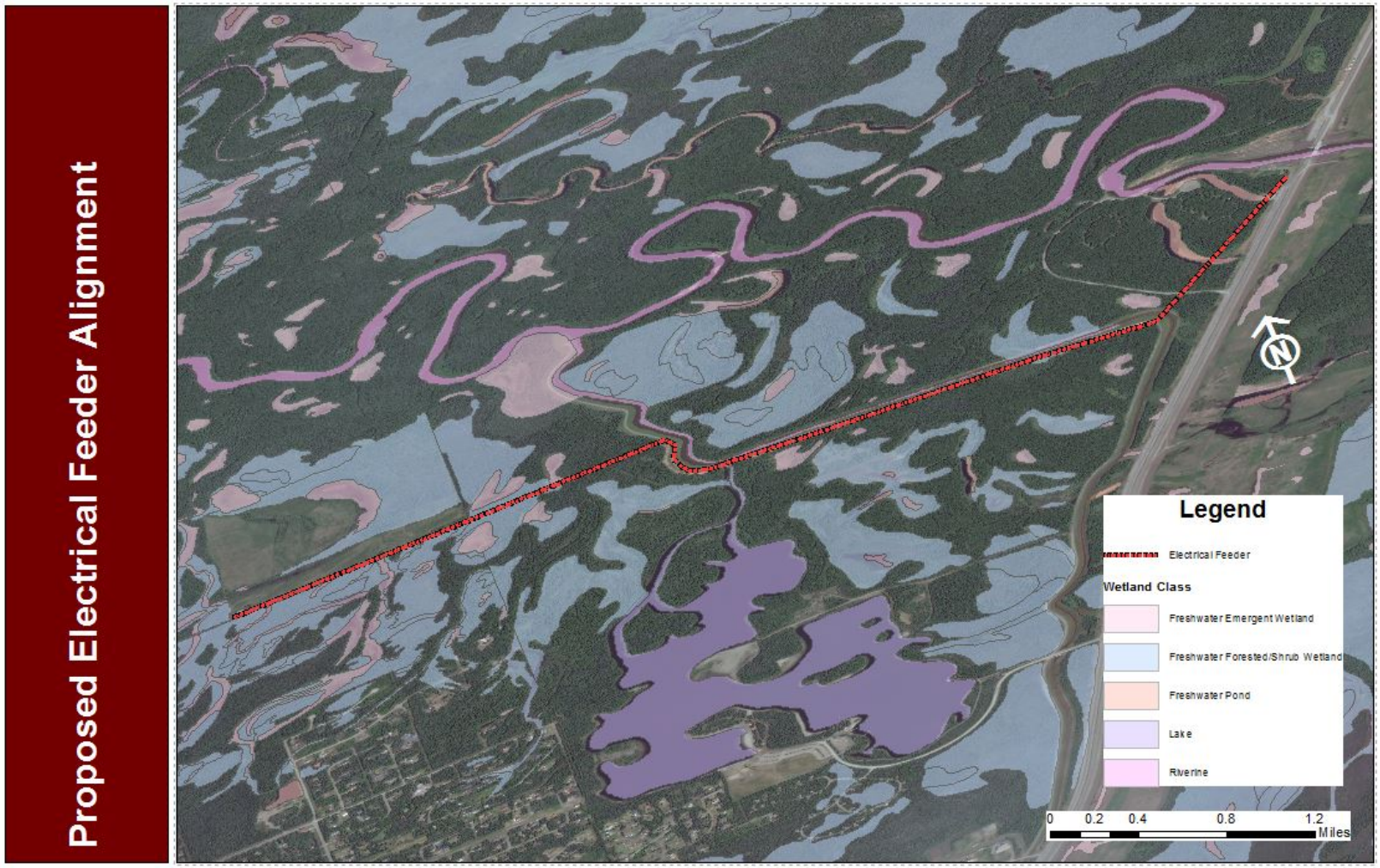

Figure 5. Proposed electrical feeder alignment with respect to NWI wetlands

3.6 Protected Species.

No threatened, endangered, or candidate species are known to occur in the project area based on a review of the USFWS provided species list. (Appendix A)

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3.7 Cultural and Historic Resources

3.7.1 Affected Environment

A search of the Alaska Heritage Resources Survey (AHRS) indicates there are 13 cultural resources with the general vicinity of the project area, but only two resources lie directly within the affected environment (Table 1). Site FAI-1752 (Alaska Military Highway Telephone and Telegraph Line) traces the historic route of the communications line built by the U.S. Army 255th Signal Corps connecting Edmonton, Alberta, Canada with Fairbanks along the Alaska Highway corridor. FAI-1752 was built between 1942 and 1943. The corridor runs east to west and is cut by the Chena floodway. The second resource directly within the project area is FAI-2328 (Richardson Highway). FAI-2328 was completed in 1910 and currently runs over the Chena floodway on a bridge. No sites identified within the affected environment will be affected by this project. The Richardson Highway (FAI-2328) may be used for transportation to and from the site; however, its use as a modern roadway is consistent with its historical use and will not be negatively affected by this project.

The majority of the area encompassing the Chena River Lakes Flood Control Project is previously disturbed from initial construction of the dam itself, indicating the likelihood of unknown cultural resources in the area is low. It is not expected that any cultural resources will be impacted by this project.

Should any previously unknown historic or prehistoric property be encountered during current or future undertakings within the project area, all work that might affect the property shall cease until the property's eligibility for the NRHP in consultation within the SHPO and other interested parties can be determined as per 36 CFR 800.13(b). The potential effect of the undertaking will be assessed with the SHPO and other interested parties. If the undertaking will adversely affect the newly discovered property, mitigation measures will be developed in consultation with the SHPO and other interested parties, and will be completed prior to the adverse effect. Consultation with the SHPO and other interested parties will be carried out in an expeditious manner so as to avoid unnecessary delays to the undertaking. Additionally, the ACHP will be notified of any newly discovered NRHP eligible properties and mitigation measures. Mitigation measures will be determined in consultation with the SHPO and any interested parties.

Table 1. Considered cultural resources (AHRS 2018).

AHRS No.	Site Name	NRHP Status	In AE
FAI-0035	Chugwater Site	Listed as NHR	
FAI-0072	Moose Creek Bluff Pictograph Site	None	
FAI-0165	Chena Bluff Site	None	
FAI-0212	Chena River Cabin	None	
FAI-0339	FAI-00339 (abandoned cabin)	None	`
FAI-1670	Nike Site Tare	None	
FAI-1747	3128 Tobacco Rd. North Pole (long cabin)	Not Eligible	
FAI-1750	FAI-01750 (cabin)	Not Eligible	
FAI-1752	Alaska Military Hwy. Telephone and Telegraph Line	None	**X**
FAI-2124	3463 Plack Road	Not Eligible	
FAI-2125	FAI-02125 (Historic wood-frame structure)	Not Eligible	
FAI-2194	Moose Creek Dike	Not Eligible	
FAI-2328	Richardson Highway (Mile point 329.2-362)	None	**X**

* AE- Affected Environment
* NRHP- National Register of Historic Places
* NHR- National Historic Resources

3.7.2 Environmental Consequences of the Preferred Alternative

Should there be an inadvertent discovery of human remains and/or grave goods during current or future undertakings within in the project area, standard operating procedures (Alaska Statute (AS) 12.65.005(a)(1) and AS 18.50.250) and a memorandum of understanding will be drawn up among the Alaska Office of History and Archaeology, the State Medical Examiner, and the Alaska State Troopers. Upon discovery all activity in the vicinity of the human remains and/or grave goods must cease and the site must be secured against further disturbance. The project archaeologist will be immediately notified by phone, followed by written notification. As per AS 12.65.005(a)(1), the project archaeologist or project manager will immediately notify a peace officer (State Trooper, Village Police Safety Officer, Law Enforcement Officer, or Borough Officer), the State Medical Examiner, and the SHPO by phone. A qualified person with the appropriate level of expertise as decided by the project archaeologist and the State Medical Examiner or SHPO must examine the remains to determine postmortem interval. Should remains need to be removed, relocated, transported, or reburied, the Alaska Bureau of Vital Statistics, Alaska Department of Health and Social Services, would be contacted to obtain a disinterment-reinternment permit and/or burial-transit permit as per AS 18.50.250.

3.7.2 Environmental Consequences of the Preferred Alternative

Review of the Alaska Heritage Resources Survey and an archaeological survey conducted for the initial construction of the Moose Creek Dam published on December 18, 1979 indicated no historic properties would be affected by work in any of the project areas (Yarborough, 1978). Ground disturbing activities in the electrical feeder area could uncover previously undocumented sites. Coordination with the SHPO would be conducted prior to any ground disturbing activities

in order to gain concurrence on the Alaska District's determination that no historic properties would be affected by the proposed construction project.

3.7.3 Environmental Consequences of the No-Action Alternative

The No-Action Alternative would not incur any new impacts to cultural resources.

3.8 Cumulative Effects

Federal law (40 CFR 651.16) requires that NEPA documents assess cumulative effects, which are the impact on the environment resulting from the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions. The proposed project will not directly contribute to cumulative impacts because it replaces the existing electrical feeder with an aerial feeder of comparable capacity. The new power line would not encourage additional projects in the area or contribute to additional impacts.

The proposed activity would occur in an active flood control project and similar projects with similar impacts will undoubtedly be proposed in the future. The Chena River Lakes Flood Control Project has been operational since the late 1970s, with many various maintenance and upgrades being undertaken in the interim. The Alaska District is committed to environmental stewardship and every proposed project at the Chena River Lakes Flood Control Project undergoes a mitigation process in which attempts to avoid and minimize the environmental impacts of projects are undertaken in accordance with NEPA.

When considered with the Alaska District's environmental review process, the proposed action's cumulative effects are less than significant.

4.0 CONCLUSION

The proposed construction of and electrical feeder line at the Chena River Lakes Flood Control Project would result in the permanent loss of up to 3.1 acres of vegetation and a very minor amount of fill in waters of the United States (wetlands). This assessment supports the conclusion that construction of the proposed feeder does not constitute a major Federal action significantly affecting the quality of the human environment; therefore, preparation of an environmental impact statement (EIS) is not warranted, and a finding of no significant impact (FONSI) may be signed.

5.0 AGENCY AND PUBLIC INVOLVEMENT

The following list of agencies were contacted during the February 13, 2018 through March 15, 2018 scoping period in order to solicit input on the scope of the impacts and resources affected by the proposed project. No responses were received regarding the proposed electrical feeder construction project.

- Alaska Department of Environmental Quality, Water Quality Division
- Alaska Department of Fish and Game, Habitat Division
- U.S. Army Corps of Engineers, Regulatory Division
- Alaska Department of Natural Resources, Division of Land, Mining and Water
- Alaska State Historic Preservation Office
- U.S. Environmental Protection Agency, Region 10 Aquatic Resources Unit
- National Marine Fisheries Service, Habitat Conservation Division
- U.S. Fish and Wildlife Service, Planning Assistance Unit
- Alaska Department of Transportation, Environmental Program Manager
- Bureau of Land Management, Eastern Interior Field Office
- U.S. Department of Agriculture, Natural Resource Conservation Service

6.0 PREPARERS OF THIS DOCUMENT

This environmental assessment was prepared by Matt Ferguson of the Environmental Resources Section, Alaska District, U.S Army Corps of Engineers. The Corps of Engineers Project Manager is Donna West.

7.0 REFERENCES

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Fairbanks Fish And Wildlife Field Office
101 12th Avenue
Room 110
Fairbanks, AK 99701-6237
Phone: (907) 456-0203 Fax: (907) 456-0208

In Reply Refer To: April 05, 2018
Consultation Code: 07CAFB00-2018-SLI-0100
Event Code: 07CAFB00-2018-E-00289
Project Name: Outlet Control Works Electrical Feeder

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

Appendix A

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Fairbanks Fish And Wildlife Field Office
101 12th Avenue
Room 110
Fairbanks, AK 99701-6237
(907) 456-0203

Project Summary

Consultation Code: 07CAFB00-2018-SLI-0100

Event Code: 07CAFB00-2018-E-00289

Project Name: Outlet Control Works Electrical Feeder

Project Type: TRANSMISSION LINE

Project Description: Vegetation clearing and construction of a 2.5 mile long electrical feeder to repower the Outlet Control Works at the Moose Creek Dam. Vegetation clearing would occur in the winter of 2018-19 and construction of feeder would occur summer 2019

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/64.78890953306367N147.22591874281187W

Counties: Fairbanks North Star, AK

Endangered Species Act Species

There is a total of 0 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

EVALUATION UNDER

SECTION 404(b)(1) CLEAN WATER ACT 40 CFR PART 230

Electrical Feeder Line at Chena River Lakes Flood Control Project

1.0 Project Description and Background

1.1 Location: Section 32, Township 1S, Range 3E, Fairbanks Meridian, in the Chena River Lakes Flood Control Project, near North Pole, AK, in vicinity of Latitude 64.7904°N, Longitude 147.1872°W. (Figure 1)

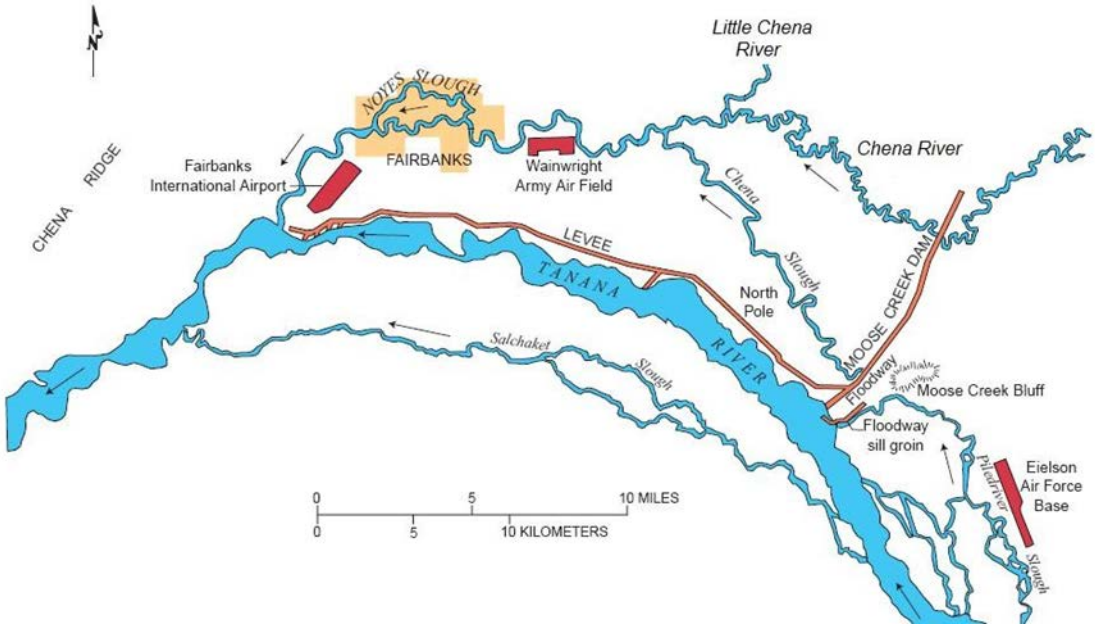

Figure 1. Map depicting the location of the Chena River Lakes Flood Control Project in relationship to major rivers and surrounding communities

1.2 Project Description: The Alaska District proposes to construct a three-phase aerial power line from the end of the existing node on Repp Road, North Pole to the Control Works. (Figure 2) Assuming an average pole spacing of 330 feet, the 2.6-mile power line could require as many as 45 poles to support the power line. About 2,400 feet of the east end of the proposed alignment would require initial clearing for the right of way and about 2,000 feet of the west end of the alignment would require supplemental clearing for the right-of-way; the rest of the alignment would share a previously cleared right-of-way. Vegetation clearing would take place in the winter of 2018-2019, and construction would occur during the summer of 2019. The feeder alignment has been designed to avoid impacts to wetlands and minimize vegetation clearing. Vegetation clearing would be conducted in the winter to minimize impacts to migratory birds.

1.3 Purpose and need: The Alaska District proposes to upgrade in fiscal year 2019 the electrical supply infrastructure of the Outlet Control Structure at the Chena River Lakes Flood Control Project (Moose Creek Dam) by constructing a 2.6-mile-long aerial electrical feeder to replace the outdated underground electrical line in order to improve reliability and relieve maintenance concerns.

1.4 General Description: The Alaska District would conduct vegetation clearing during the winter of 2018-2019 in an area of up to 3.1 acres to provide a clear utility corridor for construction and maintenance. Golden Valley Electric Association would construct a 2.6-mile long aerial electrical feeder to supply electrical power to the Outlet Control Works. Utility poles would be spaced approximately 330' apart and extend approximately 45' above ground surface and approximately 6.5' below ground surface. The entire feeder would require approximately 45 utility poles to support the 3 phase electrical wire.

1.5 Authority: Flood Control Act of 13 August 1968, Public Law 90-483 as adopted, provides for the construction of a dam and floodway for the Chena River.

1.6 General Description of Dredged or Fill Material: The alignment would bisect an area of National Wetlands Inventory mapped wetlands west of the midpoint of the feeder. Due to the permeability of the soils and proximity to the Chena River, these wetlands are assumed to be waters of the United States. The intersection of this wetland community and the alignment is approximately 1,043' and would involve the placement of up to four power poles in wetlands in order to span the water body. (Figure 3) Each pole would require a 2' diameter excavation 6.5' deep and displace 0.81 cubic yards of wetland soil. (Figure 4) Four poles would generate 3.24 cubic yards of side-cast material and 12.6 square feet of wetland impacts. The hole surrounding the base of the power pole would be back-filled with classified material packed to 95% compaction in six inch layers, resulting in 3.24 yards of fill and the loss of 12.6 square feet of wetlands.

1.7 Description of the proposed discharge site: The Chena River Lakes Flood Control Project, commonly referred to as "Moose Creek Dam", is located southeast of the City of North Pole, Alaska, and approximately 15 miles east-southeast of the City of Fairbanks, Alaska. The dam is approximately 40 river miles upstream of the Chena River's confluence with the Tanana River. Figure 1 shows the Dam's location in relation to major rivers and surrounding communities.

Figure 2. Approximate alignment of proposed electrical feeder

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The project is less than 150 miles south of the Arctic Circle. Climate is typical of interior locations in the far north. Average January temperatures range from -19 to -2 °F; average July temperatures range from 49 to 71 °F. Extreme temperatures range from as low as -60 °F to almost 100 °F. Annual precipitation is 11.5 inches, with 67.8 inches of snowfall. Heaviest precipitation generally is in August and September.

The Chena River Lakes Flood Control Project is situated on the historical Chena River floodplain, within the central Tanana valley. The elevation slowly increases from about 500 feet NAVD88 at the Chena River bank to about 533 feet NAVD88 near the perimeter of the floodplain. The floodplain is interspersed with patches of wetlands, streams, ponds, and lakes. The north end of the dam terminates at the base of a fairly steep hill with a peak elevation of about 1040 feet NAVD88. The southern end of the project is bounded by the Tanana River; a broad, silty, braided river. Bedrock is estimated to be more than 600 feet below Moose Creek Dam in some areas, decreasing in depth until it reaches the surface at the north abutment. Discontinuous permafrost often forms hydrologically impermeable barriers in the far north, but groundwater moves readily through thawed gravelly strata that dominates the conditions found beneath Moose Creek Dam.

The wetlands in the project path are palustrine forested/shrub communities typified by stunted black spruce (Picea mariana) dominating the tree and shrub strata. Some tamarack (Larix laricina) may also be present in the tree stratum. Ericaceous shrubs such as Labrador tea (Rhododrendron groenlandicum), lingonberry (Vaccinium vitis-idaea), and oval leaf blueberry (Vaccinium ovalifolium). Herbaceous species are sparse or absent. Bryophyte cover is near complete, often represented by Aulacomnium spp. and Sphagnum spp. A thick layer of partially decomposed organic material usually overlies the mineral soil; often saturated and forming a histic epipedon. Another common indicator of hydric soil include a depleted matrix with prominent redox concentrations. Hydrology is influenced by geomorphic position and the presence of shallow aquitards formed by silt lenses distributed across the floodplain.

1.8 Description of disposal method: A truck mounted auger would bore a two foot diameter hole 6.5’ deep. The utility pole would be placed, then the excavation backfilled with classified material to create a stable foundation.

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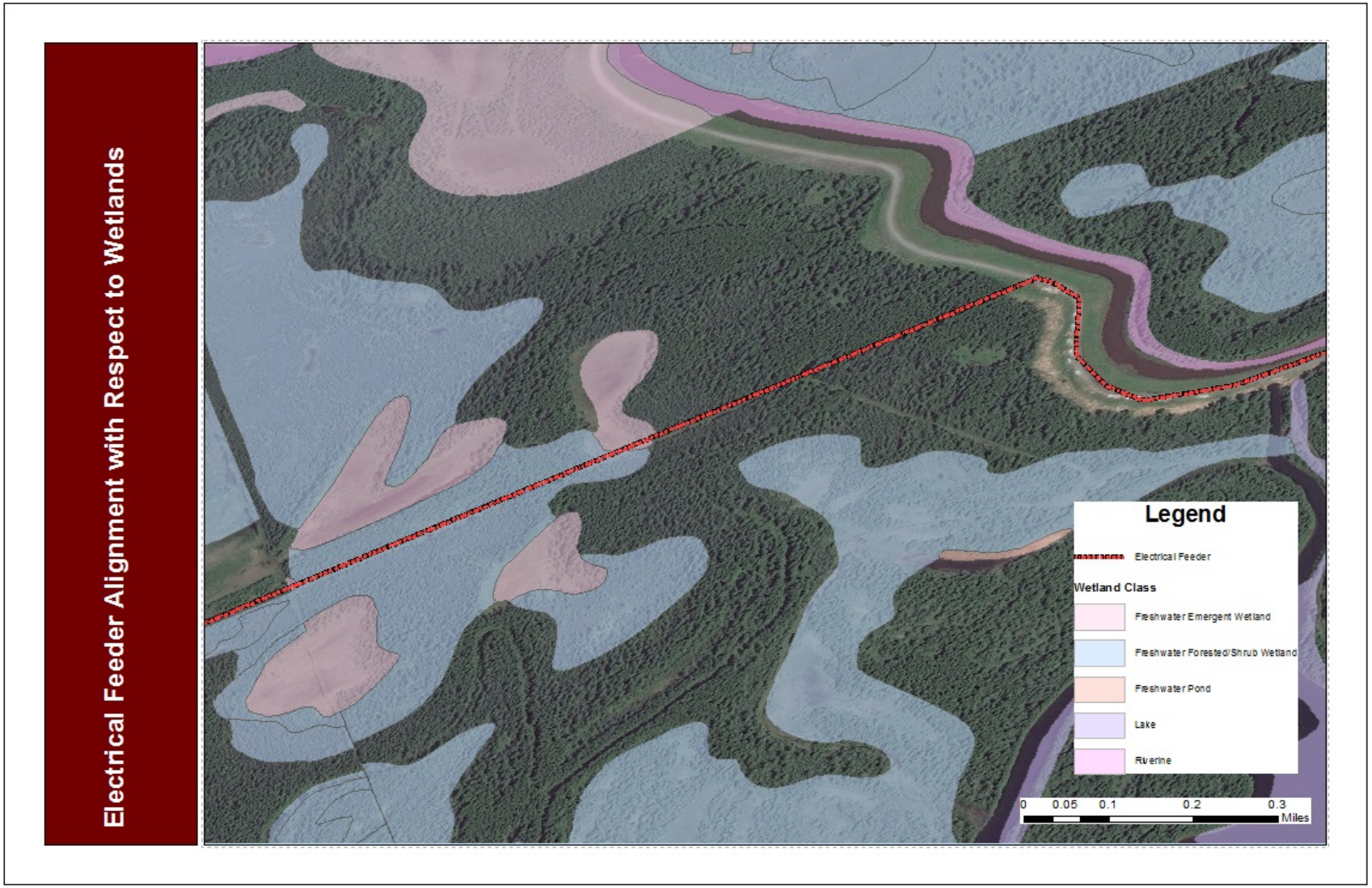

Figure 3. Electrical feeder alignment with respect to wetlands

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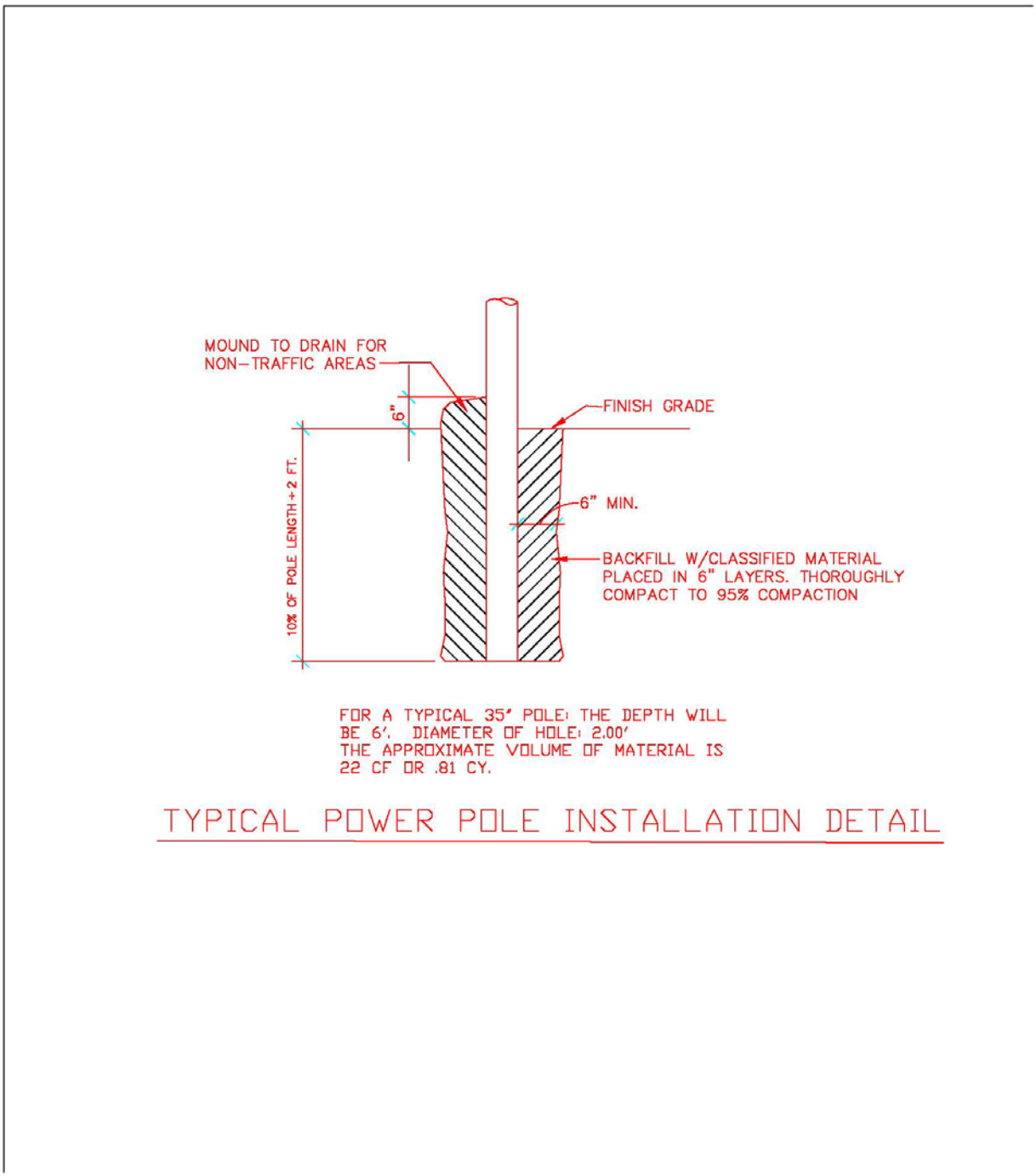

Figure 4. Typical section view of power pole installation

Appendix B

2.0 Factual Determinations

2.1 Physical Substrate Determination: In general, the Chena River Lakes Flood Control project area is underlain by soils of order Entisol, suborder Fluvent. Entisols are those soils that do not show any profile development other than an A horizon. Fluvents are typical of valleys and deltas of rivers, particularly rivers with high sediment load. Soils in the group have moderately low runoff potential when thoroughly wet. Water transmission through the soil is unimpeded. The cool climate accelerates accumulation of organic materials, which has the effect of relatively thick organic horizon development and could create acidic soils. The dominant drainage class for the map units present at the project is well-drained. The Chena River meander and low velocity support little suspended sediment.

The soil type specific to the wetlands that would be impacted by the proposed project is Tanana mucky silt loam. It is poorly drained and the typical profile is 0-3" of slightly decomposed plant material, 3-6" of mucky silt loam, 6-25" of very fine sandy loam, and 25-72" of permanently frozen alluvial parent material. It has a very low capacity to transmit water and the water table is at or near the surface. Ponding is frequent, flooding is rare, and it has a high runoff potential.

2.2 Water circulation, fluctuations, and salinity determinations: The wetlands impacted by the proposed project are in a concave geomorphic position with no defined outlet. The connection to flowing waters is shallow subsurface and may utilize relict floodplain channels. No major drainages would be altered, and the utility poles do not constitute an impervious barrier to sheet flow. No planned utility line construction at the Chena River Lakes Flood Control Project would take place below the ordinary high water mark of a mapped stream, removing the need to provide hydraulic conductivity for linear drainage features. The primary hydraulic concern is alteration to the drainage class of wetlands. The perforation of a subsurface aquitard has the potential to drain wetlands by penetration of the restrictive layer, effectively punching a hole through the soil feature that holds water near the surface and allowing it to reach a freely draining strata lower in the soil profile. The hydrologic impact of the utility line would be negligible because the project area is underlain by permafrost at 25-72" in depth and the backfill would be compacted to 95% compaction, reducing its hydraulic conductivity.

2.3 Suspended particulate/turbidity determination: The electrical feeder project is not expected to have an impact on suspended particulates or turbidity. Construction is not proposed to occur below the ordinary high water mark of any body of surface water. The wetlands surrounding the construction would act as a filter and prevent fine particulates from reaching the Chena River.

2.4 Contaminant determinations: The rock and gravel placed for the backfill will be clean material free of contaminants. The finished project will not introduce new contaminants. There is no known source of contamination at or near the project site that would be mobilized or exacerbated by this project.

2.5 Aquatic ecosystems and organism determination: The total area of impacts to wetlands is about 12.6 square feet. Some wetlands surrounding the fill could experience greater anthropogenically derived surface water or desiccation immediately surrounding the base of the poles; but due to the scale of the impacts and abundance of similar wetlands in the watershed, the electrical feeder project would not have a significant impact on wetlands.

Clearing of 3.1 acres of vegetation for the establishment of a utility corridor would be a permanent loss of habitat for birds and terrestrial mammals. The noise generated from construction would temporary drive animals from the immediate area, but that impact would be temporary and abundant surrogate habitat exists in the surrounding areas. The impact to ecosystems and organisms would be minor.

2.5 Proposed disposal site determination: No dredging is associated with the proposed project. Construction operations associated with installing the project would have no effect on the water column. The proposed action would comply with applicable water quality standards and would have no appreciable detrimental effects on municipal and private water supplies, recreational and commercial fisheries, water-related recreation, or aesthetics.

2.6 Determination of cumulative and secondary effects on the aquatic ecosystem: The completed project will have negligible cumulative effects because it would not increase development in the project area or otherwise contribute to cumulative effects.

3.0 Findings of Compliance or Non-Compliance with Restrictions on Discharge

3.1 Adaptation of the Section 404(b)(1) Guidelines to this evaluation: The proposed activity complies with the requirements set forth in the Environmental Protection Agency's Guidelines for the Specification of Disposal Sites for Dredged or Fill Material.

3.2 Evaluation of availability of practicable alternatives to the proposed discharge site which would have less adverse impact on the aquatic ecosystem: The principle discharge to waters of the U.S. proposed in this project is the placement of fill material for an electrical feeder line supply power to a critical flood control project protecting multiple downstream communities. The selection of an aerial feeder following the previously cleared area around the South Seepage Collector Channel is the least environmentally damaging practicable alternative.

3.3 Compliance with applicable state water quality standards: The proposed construction project would not be expected to have an appreciable adverse effect on water supplies, recreation, growth and propagation of fish, shellfish and other aquatic life, or wildlife. It would not be expected to introduce petroleum hydrocarbons, radioactive materials, residues, or other pollutants into the waters of the Chena River. The Alaska District will obtain a Certificate of Reasonable Assurance from the Alaska Department of Environmental Conservation Water Quality Division prior to contract award.

3.4 Compliance with applicable toxic effluent standards or prohibition under Section 307 of the Clean Water Act: No toxic effluents that would affect water quality are associated with the

proposed project. Therefore, the project complies with the toxic effluent standards of Section 307 of the Clean Water Act.

3.5 Compliance with the Endangered Species Act of 1973: There are not threatened, endangered, or candidate species in the project area.

3.6 Compliance with specified protection measures for marine sanctuaries designated by the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972: Not applicable, no marine sanctuaries are present near the project site.

3.7 Evaluation of extent of degradation of the waters of the United States: The proposed activity could result in the loss of 12.6 square feet of wetlands. The wetlands impacted are without an outlet and the minor nature of the discharge does not have the potential to create more than minor degradation to waters of the United States in the immediate vicinity of each power pole. There would be no significant adverse impacts to plankton, fish, shellfish, or wildlife.

3.8 Appropriate and practicable steps taken to minimize potential adverse impacts of the discharge on the aquatic environment: Incorporating the following avoidance, minimization, and conservation measures into the proposed project would help ensure that no significant impacts occur:

- Vegetation clearing would be constructed in the winter in order to minimize impacts to water resources.
- Power lines would span open waters without the placement of support poles below the ordinary high water mark of any open water.
- Wetlands mapped with the USFWS National Wetlands Inventory would be avoided to the extent possible by minimizing the number of poles placed within the wetland boundary.
- In order to reduce the impact of the proposed project on wetlands, any excavations in wetlands for the placement of poles would be the minimum size necessary.
- The vegetative mat from the excavated area would be removed intact, to the extent practicable, prior to digging the hole. This vegetative mat would be placed on geotextile fabric or similar in a shaded area during construction, to be replaced around the base of the pole after backfilling in order to re-establish native vegetation.
- Temporarily side-cast material would be confined and returned to the excavation in less than 90 days.
- Any exposed areas would be stabilized immediately upon completion of the utility line crossing of the wetland. Appropriate soil erosion and sediment controls would be used and maintained in effective operating condition during construction.

3.9 Public interest determination: On the basis of the guidelines the proposed site of the discharge of fill material is specified as complying with the requirements of these guidelines,

with the inclusion of appropriate and practical conditions to minimize pollution or adverse effects on the aquatic ecosystem.

Appendix B

FINDING OF COMPLIANCE

For the Construction of an Electrical Feeder to the

Outlet Control Works at the Chena River Lakes Flood Control Project,

North Pole, Alaska

1. No significant adaptations of the guidelines were made relative to this evaluation.

2. The principle discharge to waters of the U.S. proposed in this project is the placement of fill material for an electrical feeder.

3. The planned discharge would not violate any applicable State water quality standards, or violate the Toxic Effluent Standards of Section 307 of the Clean Water Act.

4. Use of the selected discharge site will not harm any endangered species or their critical habitat.

5. The proposed discharge will not result in significant adverse effects on human health and welfare, including municipal and private water supplies, recreation and commercial fishing, plankton, fish, shellfish, wildlife, and special aquatic sites. The life stages of aquatic life and other wildlife will not be adversely affected. Significant adverse effects on aquatic ecosystem diversity, productivity and stability, and recreational, aesthetic and economic values will not occur.

- Vegetation clearing would be constructed in the winter in order to minimize impacts to water resources.
- Power lines would span open waters without the placement of support poles below the ordinary high water mark of any open water.
- Wetlands mapped with the USFWS National Wetlands Inventory would be avoided to the extent possible by minimizing the number of poles placed within the wetland boundary.
- In order to reduce the impact of the proposed project on wetlands, any excavations in wetlands for the placement of poles would be the minimum size necessary.
- The vegetative mat from the excavated area would be removed intact, to the extent practicable, prior to digging the hole. This vegetative mat would be placed on geotextile

fabric or similar in a shaded area during construction, to be replaced around the base of the pole after backfilling in order to re-establish native vegetation.

- Temporarily side-cast material would be confined and returned to the excavation in less than 90 days.
- Any exposed areas would be stabilized immediately upon completion of the utility line crossing of the wetland. Appropriate soil erosion and sediment controls would be used and maintained in effective operating condition during construction.

7. The proposed site of construction and discharge is specified as complying with the 40 CFR 230 Guidelines for the Specification of Disposal Sites for Dredged or Fill Material, when considered with the inclusion of appropriate and practical conditions to minimize pollution or adverse effects to the aquatic ecosystem.

FERGUSON.MATTHEW.WAYNE.1184204610

Digitally signed by FERGUSON.MATTHEW.WAYNE.1184204610
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=FERGUSON.MATTHEW.WAYNE.1184204610
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Matt Ferguson, Biologist
USACE, Alaska District

Appendix B