ENVIRONMENTAL ASSESSMENT

Tanana River Recreation Access Improvements Project

AK FNSB TANANA(1) Tanana River Recreation Access Improvements
Revised December 2021

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

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

In Partnership with
Fairbanks North Star Borough Parks & Recreation

Digitally signed by DANIEL D DONOVAN
Date: 2021.12.16 12:50:05 -08'00'

Date Approved

Dan Donovan, Chief of
Business Operations

The following person may be contacted for additional information:

Stephen Morrow, Environmental Specialist
Western Federal Lands Highway Division
Federal Highway Administration
Mailing address: 610 East Fifth Street
Vancouver, Washington 98661-3801
Email: stephen.morrow@dot.gov

U.S. Department of Transportation
Federal Highway Administration

AK FNSB TANANA(1)

Tanana River Recreation Access Improvements

Environmental Assessment

Revised December 2021

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

In Partnership with
Fairbanks North Star Borough Parks & Recreation

U.S. Department of Transportation
Federal Highway Administration

FAIRBANKS NORTH STAR BOROUGH January 1, 1964

Executive Summary

The National Environmental Policy Act of 1969 (NEPA) requires that all projects carried out by a federal agency or which involve federal funding, require a federal permit, or occur on federal land must consider the effects of their actions on the quality of the human environment. Western Federal Lands Highway Division (WFLHD) of the Federal Highway Administration (FHWA) has prepared this environmental assessment as the lead agency in accordance with NEPA for the Tanana River Recreation Access (TRRA) Improvements Project. This EA discloses the environmental consequences of the Proposed Action (Preferred Alternative) and a No Action (No Build) Alternative and 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 Fairbanks North Star Borough (FNSB) proposes to construct new and improved transportation elements linking the City of Fairbanks and the FNSB to the Tanana Lakes Recreation Area (TLRA) and the TLRA to federally-managed lands along the Tanana River. In addition to transportation elements, the FNSB proposes to bring electricity to the TLRA via overhead power line. The TRRA project is funded through the Alaska Federal Lands Access Program (AFLAP), the Fairbanks Area Surface Transportation (FAST) Planning, Alaska Congestion Mitigation and Air Quality (CMAQ) Program, and the FNSB.

The project is located 10 minutes south of downtown Fairbanks, 14 miles northwest of the City of North Pole, and 3 miles southwest of the U.S. Department of Army's Fort Wainwright main gate. The TLRA, a 980-acre park, is a multi-use recreation area used year-round and serves as a gateway to the Alaskan wilderness. The purpose of this project is to complete the road infrastructure and associated transportation improvements to facilitate public access to the TLRA and to Federal, State and Native Alaskan lands within the Tanana and Yukon River watersheds.

The need for this project is illustrated by increasing public use of the TLRA amenities. The TLRA was constructed for a visitation level assumed to exceed 100,000 visitors upon the completion of the TLRA (FNSB 2007). However, visitation continues to far exceed this assumption with 198,468 visitors in 2017 to 207,954 users in 2018 (AFLAP 2019). It is likely that visitation would continue to increase as the TLRA amenities are fully developed with new uses attracting a wider range of visitors. The proposed project would resolve indirect access roads, lack of Americans with Disabilities Act (ADA)-compliant amenities, poor road surfaces, lack of road visibility, and a central entrance station that all contribute to inefficient access to the TLRA amenities.

Planning for the development of the TLRA as a recreation area was codified in the 2007 TLRA Master Plan. The TLRA Master Plan presented a conceptual design for the TLRA that was developed with public and agency input through a scoping process. The Preferred Alternative was developed consistent with the TLRA Master Plan (2007). The "No Build" alternative discusses the existing conditions, foreseeable conditions should the project not be approved, and effects of not implementing the proposed project, and serves as the baseline for comparing the environmental impacts. The alternatives analyzed in this EA include the No Build Alternative and the Preferred Alternative. The project footprint is approximately 18.5 acres.

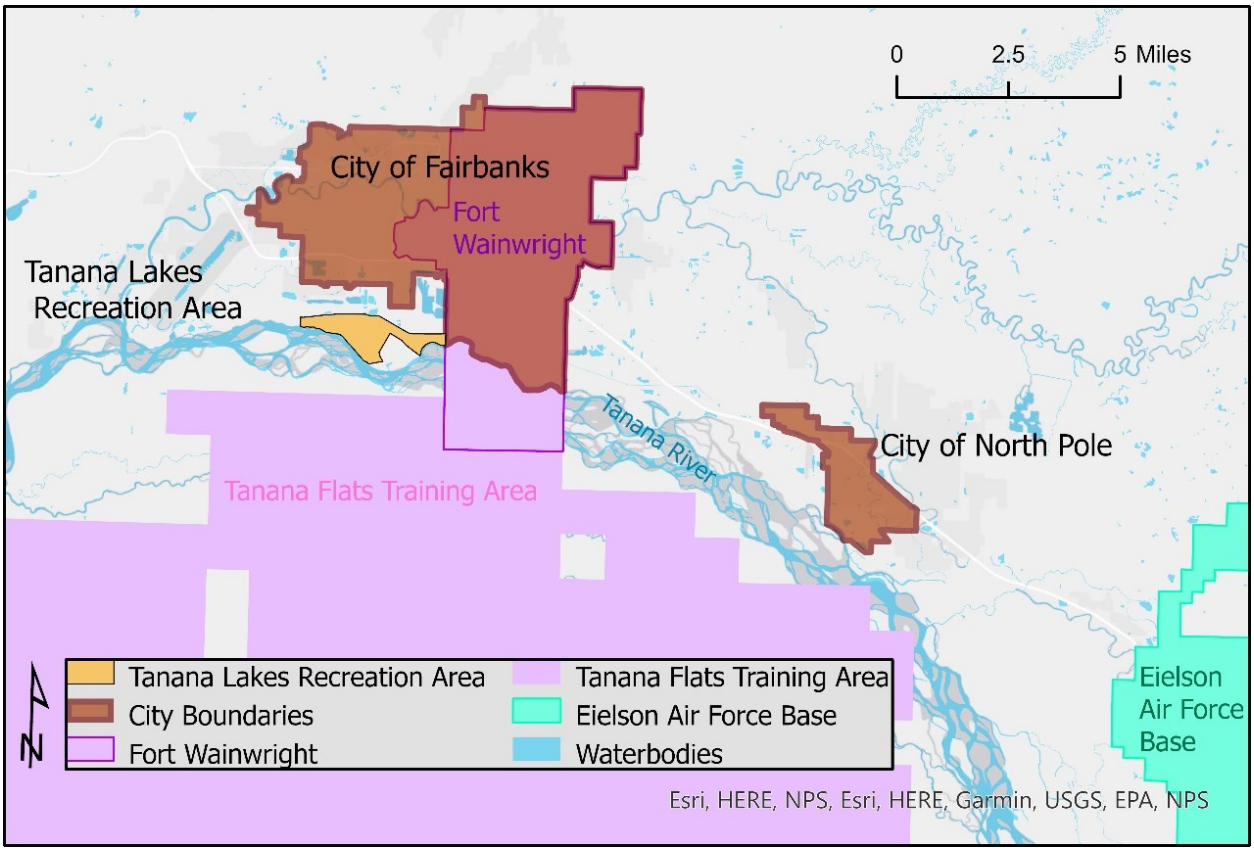

Figure ES-1 – Overview of TRRA Improvements Project region and federal lands

Table ES-1 – Summary of Impacts by Alternatives

Resource	No Build Alternative	Preferred Alternative
Transportation	**Temporary Construction Effects** • None **Direct and Indirect Effects** • Poor road surfaces, limited visibility and inefficient routing will continue to pose undue costs and not improve safety risks. • Unimproved roads within the TLRA would continue to deteriorate, resulting in increased maintenance and eventual replacement. • TLRA visitors would continue to increase, thereby adding to the capacity limit stressors of the existing transportation facilities.	**Temporary Construction Effects** There would be minor adverse impacts to transportation including: • Temporary delays and possible rerouting to traffic, businesses and TLRA users during construction. • Temporary closures or reduced capacity of park facilities. However, these impacts would be insignificant with the implementation of mitigation measures, including advance notice of construction schedule and rerouting, and because any potential delays would be temporary. **Direct and Indirect Effects** There would be beneficial impacts to transportation including: • Access to the TLRA would be improved and a more direct route to popular facilities would be provided. • New stop signs would improve safety at the railroad crossing and within the TLRA. • Speed and traffic volumes result in no significant impacts to safety performance with new intersections. • Providing safer access for users, eliminate visibility issues with clear line of sight, and provide improved, controlled access, and security, thus reducing illegal activities. • Rebuilding the Alaska Railroad Corporation (ARRC) road-crossing to provide a safer crossing. • Addition of three stop signs at the intersection of South Lathrop Street and Sanduri/Pomm Avenues would provide safer roadway conditions at the railroad crossing.

Resource	No Build Alternative	Preferred Alternative
		• Decreases in the travel time and vehicle miles within the TLRA and access routes. • New trails, expanded parking areas, new wider roads, and non-motorized routes in the park would encourage multi-modal use and provide ample room for balancing bicyclist and pedestrian safety with vehicle access. • Minimizing the use of the levee system by off road vehicles and trucks. • The future entrance station provides an important interface with users and provide information about access to other recreation lands. • New roads designed to increase long-term reliability and accommodate the existing and future traffic capacity. • Reducing the annual maintenance obligations for FNSB.
Land Use and Utilities	**Temporary Construction Effects** • None **Direct and Indirect Effects** • Land use designations would remain unchanged. • TLRA lots would continue to convert to Outdoor Recreation upon cessation of gravel extraction leases. • Would not be consistent with existing land use plans such as the TLRA Master Plan.	**Temporary Construction Effects** There would be minor adverse impacts to land use, including: • Potential temporary delays to traffic and access to businesses. However, these impacts would be insignificant because: • Traffic would be accommodated through the work zone or alternate detours would be used around the work zone, which may result in delays of less than 10 minutes for users accessing local businesses and the TLRA. **Direct and Indirect Effects** There would be minor adverse impacts to land use resulting from: • Of the 18.5-acre project footprint, approximately 8 acres of undeveloped land would be converted to transportation use and utilities. These 8 acres represent approximately 0.7 percent of the remaining undeveloped land of the TLRA.

Resource	No Build Alternative	Preferred Alternative
		• Bringing a source of electricity to the TLRA would benefit users and management of the TLRA. However, these impacts would be insignificant to Land Use and Utilities with implementation of mitigation measures. There are also permanent beneficial impacts, including: • Providing a more direct route to the TLRA and connection with south Fairbanks. • Providing electrical utilities to TLRA consistent with the 2007 TLRA Master Plan.
Recreation	**Temporary Construction Effects** • None **Direct and Indirect Effects.** This would result in a significant impact because: • Access to the TLRA and federally managed lands would remain difficult for all members of the public. • TLRA would remain out of compliance with the ADA. • Not fulfilling the TLRA Master Plan.	**Temporary Construction Effects** There would be minor adverse impacts to recreation including: • Temporary closures that would affect users. However, this impact would be insignificant because: • Traffic would be accommodated through the work zone or alternate routes/detours would be established around the work zone, which may result in delays of less than 10 minutes for users accessing the TLRA. **Direct and Indirect Effects** There would be beneficial impacts to recreation including: • Improving access to the TLRA and other recreation lands by providing new and improved entrance and road network. • Providing new ADA-compliant facilities and trails would improve access to wider user pool and meet ADA requirements. • Bringing electricity to power headbolt heaters benefits recreationists, especially during winter months. • Fulfilling the TLRA Master Plan results in a net benefit to a Section 4(f) property under the Transportation Act of 1966.

Resource	No Build Alternative	Preferred Alternative
Water Resources/ Water Quality/ Floodplains	**Temporary Construction Effects** • None **Direct and Indirect Effects** • None	**Temporary Construction Effects** There could be minor adverse impacts to water resources, water quality, and floodplains including: • Soil disturbance, runoff, and spills could impact surface water quality, increase turbidity, reduce infiltration capacity, and increase surface runoff. • During road construction on the levee, existing access, operations, maintenance, and flood control capability of the local operator (FNSB) would not be affected. However, with the implementation of best management practices and compliance with all permit mitigation measures, these impacts would be reduced to insignificant and no adverse effect to the functionality of the levee system during construction. **Direct and Indirect Effects** There may be minor impacts to water resources, water quality, and floodplains, including: • Potential future degradation of aquatic resources from vehicle pollutants and increases in impervious surfaces, erosion, sediment deposition, and storm water runoff. • Vegetation clearing and filling of the floodplain for the roads and overhead power line construction. • PCPs from treated poles have the potential to impact water resources and water quality.

Resource	No Build Alternative	Preferred Alternative
		However, these impacts would be insignificant with the implementation of storm water best management practices, such as treating runoff using vegetated strips for infiltration and reducing impacts to floodplains during the design phase. The minimal impacts to the floodplain during the design phase would be documented and quantified through the No Net Rise analysis and certification. In addition, most new roads would be paved, thus reducing the source of sediments. Impacts from PCPs would be reduced by treating wood offsite or not near waterways or wetlands and not cutting, drilling, sanding, or other measures onsite that will cause treated wood sawdust or coating to sluff off into waterways or wetlands. Beneficial impacts include: • Maintaining current drainage patterns.
Wetlands and Non-wetland Waters	**Temporary Construction Effects** • None **Direct and Indirect Effects** • None	**Temporary Construction Effects** There would be minor impacts to wetlands and non-wetland waters, including: • Could introduce increased sediment to wetlands and waters from construction and clearing activities. • Could increase, temporarily, the turbidity of non-wetland waters, such as streams. • May require stream diversion during culvert installation to maintain water flows. However, these impacts would be insignificant with the implementation of best management practices and mitigation measures.

Resource	No Build Alternative	Preferred Alternative
		Direct and Indirect Effects There would be minor permanent impacts to wetland and non-wetland waters, including: • Loss of approximately 3 acres of wetlands and waters within study area, out of approximately 650 acres of wetlands and waters in the TLRA. This is less than 0.5 percent of the wetlands and waters of the TLRA. • Loss of wetlands and waters would be avoided during design process to minimize impacts to the extent practicable (e.g., shifting road alignments and utility pole placement), and loss of wetland acreage and function would be compensated through on-site wetland compensatory mitigation. • Introduction of nonnative species and pollutants to wetlands and vegetation communities adjacent to the new infrastructure. • Roads and trails would bisect wetlands and streams, potentially resulting in wetland function disruptions and degradation of habitat. • Impoundment of waters would be avoided through design by incorporating drainage features and maintaining existing drainage patterns. • PCPs from treated poles have the potential to impact water resources and water quality.

Resource	No Build Alternative	Preferred Alternative
		However, these impacts would be reduced to insignificant through the implementation of mitigation measures and compliance with all permits, including Clean Water Act Section 404 and providing compensatory mitigation for loss of wetlands and waters of the U.S. Impacts from PCPs would be avoided by treating wood offsite or not near waterways or wetlands and not cutting, drilling, sanding, or other measures onsite that will cause treated wood sawdust or coating to sluff off into waterways or wetlands. Utility poles will not be sited in wetlands and waters outside of the new project embankments.
Vegetation and Wildlife	**Temporary Construction Effects** • None **Direct and Indirect Effects** • None	**Temporary Construction Effects** There would be adverse impacts to vegetation and wildlife, including: • Temporary, localized disruption to local wildlife (including special status avian species) due to construction noise and vegetation clearing. • Construction activities potentially would remove or disturb nesting habitat for native birds (resulting in nest abandonment) if clearing and grading activities occur during the breeding season. However, these impacts could be reduced to insignificant through mitigation measures such as completing clearing and grubbing of vegetation outside of the bird breeding season and implementing mitigation measures such as restoring disturbed areas. **Direct and Indirect Effects** There may be permanent adverse impacts to vegetation and wildlife, including:

Resource	No Build Alternative	Preferred Alternative
		• Loss of approximately 8 acres of undeveloped land resulting in permanent loss of habitat used by wildlife. This is a small area (approximately 0.7 percent) of undeveloped land remaining in the TLRA and the abundant undeveloped habitat in the 1,000s of acres surrounding the TLRA. • Avian mortality from nest abandonment during vegetation clearing, vehicle or structure collisions, and contaminants. • Avian injury or mortality due to collisions with overhead power lines and infrastructure. • Injury or mortality from electrocution due to contact with overhead power lines. Bald eagles and other large birds have a higher risk of electrocution. • Changes in activity patterns and increased energy expenditures due to human disturbance. • Increased mortality by attracting more predators to new areas. Utility poles provide perching areas for avian predators. • Increase mortality from hunting by providing improved access to the TLRA and TFTA. • Potential for non-native plant and invasive weed introduction or dispersal from recreational users. • PCPs from treated poles have the potential to impact fish and wildlife habitat.

Resource	No Build Alternative	Preferred Alternative
		However, these impacts would be reduced to insignificant with the implementation of mitigation measures including minimizing clearing and grubbing areas to previously disturbed areas, working outside of the breeding bird season, implementing migratory bird and bald eagle nest surveys, delineating work areas, and implementing all permit compliance requirements. Collision and electrocution would be reduced to insignificant with implementation of Avian Power Line Interaction Committee (APLIC) guidelines. Impacts from PCPs would be avoided by treating wood offsite or not near waterways or wetlands and not cutting, drilling, sanding, or other measures onsite that will cause treated wood sawdust or coating to sluff off into waterways or wetlands. Utility poles will not be sited in wetlands or waters outside of the new project embankments.
Social and Economic Changes	**Temporary Construction Effects** • None **Direct and Indirect Effects** • Would not improve access to the community.	**Temporary Construction Effects** There would be minor impacts to social and economic resources, including: • Adjacent businesses and park visitors may experience brief traffic delays. • Short-term construction-related employment would be provided that could result in an economic boost to residents of the community. **Direct and Indirect Effects** There would be beneficial impacts to social and economic resources, including: • Supporting the community's economic goals by providing better access for hunting, fishing, and other recreation activities that would in turn increase spending on recreational goods and services. Local business would benefit with entrance located closer to businesses.

Resource	No Build Alternative	Preferred Alternative
		• Providing a more direct and accommodating route from the community and within the TLRA, as well as amenities like clean and secure restrooms and ADA-accessible pathways and parking. • Reducing the illegal activities and dumping in the TLRA.
Soils and Geology	**Temporary Construction Effects** • None **Direct and Indirect Effects** • None	**Temporary Construction Effects** There would be minor impacts to soils and geology, including: • Cut and fill slopes placement of utility poles, retaining walls, and stream crossings through currently undeveloped areas would disturb the existing soils and permafrost layer. • Exposed soils would be subject to erosion. **Direct and Indirect Effects** • Could impact erosion and drainage functions of the surface soils. However, these impacts would be reduced to insignificant with the implementation of mitigation measures including: design and implementation of erosion and sediment control measures, and retaining weed-free native topsoil for future use in restoration.
Cultural Resources	**Temporary Construction Effects** • None **Direct and Indirect Effects** • None	**Temporary Construction Effects** • Potential for inadvertent discovery of cultural materials during construction. This impact would be reduced to insignificant with the implementation of work stoppage and immediate initiation of consultation with the Alaska OHA upon discovery. **Direct and Indirect Effects** • None.

Resource	No Build Alternative	Preferred Alternative
Air Quality/Noise/ Energy	**Temporary Construction Effects** • None **Direct and Indirect Effects** • Continue to contribute to fugitive dust conditions.	**Temporary Construction Effects** There would be minor adverse impacts to air quality, noise, and energy, including: • Would result in temporary adverse effects to air quality, primarily from dust and vehicle emissions during construction. • Noise levels would be higher during construction. • Increased energy consumed by vehicles and equipment used for construction. These would be reduced to insignificant with the implementation of mitigation measures, including not idling construction equipment. **Direct and Indirect Effects** There would be no significant adverse impacts to air, noise, or energy because there are no noise receptors and impacts to air quality and energy from an increase in visitors would be offset by a decrease in vehicle miles traveled. • Improved roads, including a paved entrance road, would minimize existing fugitive dust conditions. • Reduction in vehicle miles traveled within and to the TLRA would compensate for any potential air quality impacts from higher user capacity. • Noise levels may increase or be redirected to new areas associated with new roads, new entrance and due to future increases in visitors; however, there are no residential noise receptors in the project vicinity, which consists of recreation and industrial land use. • Overhead power lines would increase energy expenditures; however, this would be a minor increase (approximately 7.2 kV power line).

Resource	No Build Alternative	Preferred Alternative
		• Bringing power to the TLRA would benefit the management and use by allowing for headbolt heaters for vehicles and facilitate development of the entrance station. The TRRA Improvements Project will not create any new violations, or increase the severity or number of violations, or delay timely attainment of the national ambient air quality standards. FHWA finds that the TRRA Improvements Project conforms with the State Implementation Plan (SIP) in accordance with 40 CFR 93.
Visual Quality	**Temporary Construction Effects** • None **Direct and Indirect Effects** • None	**Temporary Construction Effects** • Construction activities would have temporary localized effects to visual quality. **Direct and Indirect Effects** • Small areas, approximately 8 acres of undeveloped land, would be converted to transportation infrastructure. This represents approximately 0.7 percent of the remaining undeveloped areas of the TLRA. • Impacts to visual quality from overhead power lines would be negative because there are no power lines or utility poles in the TLRA currently.

Resource	No Build Alternative	Preferred Alternative
		There would be no significant adverse impacts to visual quality because native habitats including trees are on both sides of the expanded road footprints, and the new and improved roads and power line are not within a scenic viewshed. The power line may impact visual quality negatively, but this would be considered an insignificant impact due to the location of the power line along the roads in a highly modified landscape. Any temporary construction impacts would be short in duration.
Hazardous Materials	**Temporary Construction Effects** • None **Direct and Indirect Effects** • None	**Temporary Construction Effects** • Potential for hazardous materials disturbance or release during construction. **Direct and Indirect Effects** • Potential leaks, drips, and spills from vehicles during operation and maintenance. • Pole-mounted transformers have the potential to leak oil. There would be no significant adverse impacts from hazardous materials with the implementation of best management practices and permit requirements.

This page left blank.

TABLE OF CONTENTS

SECTION PAGE

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ACRONYMS & ABBREVIATIONS

ADA	Americans With Disabilities Act
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
ADNR	Alaska Department of Natural Resources
AKDOT&PF	Alaska Department of Transportation & Public Facilities
AFLAP	Alaska Federal Lands Access Program
AHRS	Alaska Heritage Resource Survey
APLIC	Avian Power Line Interaction Committee
ARRC	Alaska Railroad Corporation
APDES	Alaska Pollutant Discharge Elimination System
APE	Area of Potential Effects
ATV	all-terrain vehicle
AWC	Anadromous Waters Catalog
BMP	best management practice
CCA	chromate copper arsenate
CFR	Code of Federal Regulations
CMAQ	Congestion Mitigation and Air Quality
DOA	Department of the Army
EA	Environmental Assessment
EFH	Essential Fish Habitat
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FAST	Fairbanks Area Surface Transportation
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FNSB	Fairbanks North Star Borough
GVEA	Golden Valley Electric Association
H	horizontal
HUC	Hydrologic Unit Code
INRMP	Integrated Natural Resource Management Plan
kV	kilovolt
kVA	kilovolt amperes
LWCF	Land and Water Conservation Fund
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List

OHA	Office of History and Archaeology
ORV	off-road vehicles
PCP	pentachlorophenol
PM	particulate matter
RMZ	Riparian Management Zone
ROW	right-of-way
RTP	Regional Transportation Plan
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SRB&A	Stephen R Braund and Associates
SWPPP	Storm Water Pollution Prevention Plan
TFCL	Tanana Flood Control Levee
TFTA	Tanana Flats Training Area
TIP	Transportation Improvement Program
TLRA	Tanana Lakes Recreation Area
TRRA	Tanana River Recreation Area
USACE	United States Army Corps of Engineers
USC	United States Code
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
V	vertical
WFLHD	Western Federal Lands Highway Division

1 Purpose of and Need for Action

1.1 INTRODUCTION

The Fairbanks North Star Borough (FNSB) proposes to construct new and improved transportation elements linking the City of Fairbanks and FNSB to the Tanana Lakes Recreation Area (TLRA) and the TLRA to federally-managed lands along the Tanana River. The Federal Highway Administration (FHWA), as the lead agency, is intending to complete the design and National Environmental Policy Act (NEPA) documentation for the Tanana River Recreation Access (TRRA) Improvements Project. Cooperating agencies include the U.S. Army Corps of Engineers (USACE), Alaska Railroad Corporation (ARRC), Alaska Department of Environmental Conservation (ADEC), Alaska Department of Fish and Game (ADF&G), and Alaska Department of Natural Resources (ADNR).

The TRRA Improvements Project is within TLRA, a multi-use recreation area used all year round as a gateway to the Alaskan wilderness. This proposed project will address an existing transportation gap that currently prohibits Americans With Disabilities Act (ADA) access and multimodal transportation to the Tanana River. The project is located 10 minutes south of downtown Fairbanks, 14 miles northwest of the City of North Pole, and 3 miles southwest of the Army's Fort Wainwright main gate. The Army's Tanana Flats Training Area (TFTA) is the nearest federal land, located across the Tanana River from the TLRA. The project is within Sections 21, 22, 27, and 28, Township 1 South, Range 1 West, Fairbanks Meridian.

The TRRA Improvements Project is funded through the Alaska Federal Lands Access Program (AFLAP), the Fairbanks Area Surface Transportation (FAST) Planning, and the Alaska Congestion Mitigation and Air Quality (CMAQ) Program. The FNSB submitted two AFLAP applications for funding improvements for the TLRA (Phase I and Phase II), as the TLRA provides public access to federally managed lands of the TFTA. Hereafter, Phase I and Phase II are collectively referred to as the TRRA Improvements Project.

The TLRA is located on the south (river) side of the Tanana Flood Control Levee (TFCL) in south Fairbanks (Figure 1-1). The recreation area has been established around Cushman Lake, which was formed by the impounded waters of an active slough of the Tanana River. The Goose Island Causeway (a groin extension of South Cushman Street (St.)) and Groin 9 (an extension of Cinch St.) were constructed to create the freshwater Cushman Lake, which is suitable for recreation activities and habitat conservation. Groin 9 also protects the motorized boat launch area. The area was cleaned up and developed after 2012 to include a swimming beach on Cushman Lake, hiking trails, the motorized boat launch that connects with the active channel of the Tanana River, and the non-motorized boat launch on the shore of Cushman Lake (FNSB 2007). Much of the area to the south of the TLRA and outside of the City of Fairbanks and other cities remains intact habitat.

1.2 PURPOSE AND NEED STATEMENT

1.2.1 Purpose

The purpose of this project is to implement road infrastructure, multi-modal access, and site improvements identified in the 2007 TLRA Master Plan linking the City of Fairbanks and the FNSB to the TLRA and to federally-managed lands along the Tanana River. The TLRA, managed by the FNSB, serves as the gateway to the Tanana River and federal lands via boats in summer and via snow machines, snow bikes, dog sleds, and skis in winter. The proposed improvements would facilitate public access to the TFTA across the river, as well as other federal, State, and Native Alaskan lands within the Tanana and Yukon River watersheds. The proposed action fulfills recommendations of the 2007 TLRA Master Plan (Appendix A).

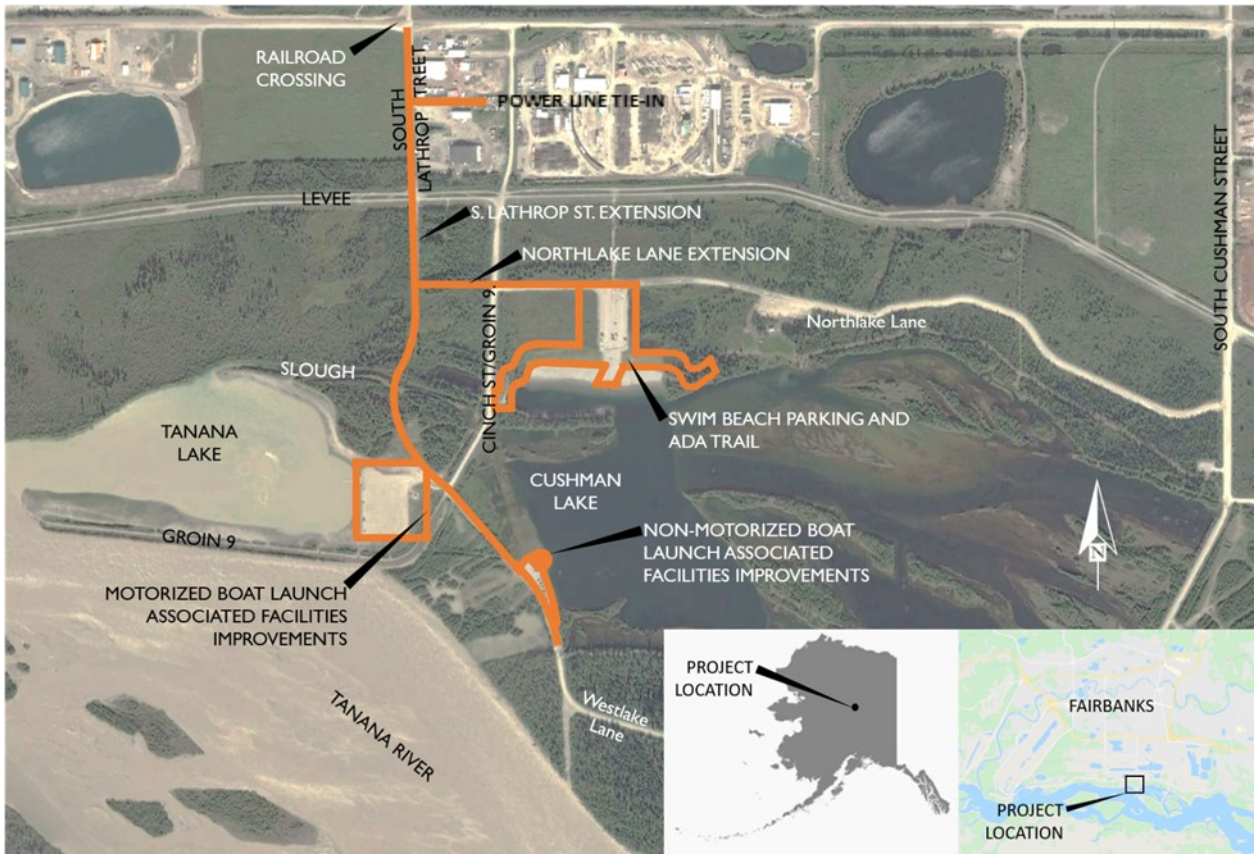

Figure 1-1 – Overview of the TRRA Improvements Project region

1.2.2 Need

The need for this project is illustrated by the increasing public use of the TLRA amenities. Initially the TLRA was constructed for a visitation level assumed to exceed 100,000 visitors annually upon the completion of the TLRA (FNSB 2007). However, visitation continues to far exceed this assumption with 198,468 users in 2017 to 207,954 users in 2018 (AFLAP 2019). It is likely that visitation would continue to increase as the TLRA amenities are fully developed with new uses attracting wider range of visitors. The proposed project would resolve the existing indirect access, lack of amenities, poor road surfaces, and lack of visibility that all contribute to inefficient and unsafe access to the TLRA facilities. Specifically, it would complete a new, shorter, safer, and more functional route via South Lathrop St., a new entrance station area, a Northlake Lane connection to South Lathrop St., new restrooms, expand the parking lot at the swim beach, provide ADA compliance and electrical services. Implementation also is needed to fulfill the public's needs and recommendations of the Master Plan. The specific needs addressed by the TRRA Improvements Project are described below.

1. *The existing single access route is constructed of poor, loose gravel surface that is costly to maintain.* The 2007 TLRA Master Plan only anticipated approximately half of the current volume of vehicle traffic on Northlake Lane and South Cushman Street. The existing roads were not constructed to accommodate the high use as exhibited by the development of unhardened, rutted, and dusty gravel surface. As a result, the existing roads require blading for potholes up to three times each summer. In addition, a skid steer and loader with new road materials are used about once a month to fill potholes at intersections and up to two calcium chloride applications for dust control are completed each spring.

2. *The route and conditions lead to an unsafe travel environment.* The pedestrian and bicycle traffic, overflow parking, poor visibility from dust and blind turns, and concerns of vehicles exceeding speed limits on Northlake Lane are significant safety hazards.
3. *The route to the TLRA boat launch is inefficient, costing the traveler and community in travel time and vehicle miles.* To reach the swim beach, boat launch, and Tanana River, traffic routed from S. Cushman St. entrance requires an indirect route 1.75 miles west and south on loose gravel of Northlake Lane. Total travel distance is even farther out of the way for visitors traveling from the west side of Fairbanks.
4. *The Tanana River and Federal Lands along it are difficult to access.* The glacially-fed Tanana River water is opaque with silt, cold, fast moving, and complex, with ever-evolving braided channels. These qualities make the river more challenging, unpredictable, and ultimately dangerous for launching boats. Currently, there is one underdeveloped sheltered boat launch in Tanana Lake that allows for a safer transition into the Tanana River.
5. *An existing at-grade road/rail crossing has fallen into disrepair and requires repair.* The rail crossing intersects both roads and travels in an east-west orientation parallel to Sanduri Avenue. There is currently no stop sign, lighted signal, or crossing arms to slow, alert, and stop a driver when a train is crossing. The line of sight at the crossing is also limited, making it difficult to see a crossing train.
6. *The TLRA lacks a centralized, controlled main entrance, site security, and user information.* The existing route from the TLRA main entrance is about a mile farther east from the park amenities than the South Lathrop Street entry. Northlake Lane is surfaced with loose gravel. The TLRA lacks electricity to maintain an entrance station. There are concerns from visitors that vehicles often speed.
7. *Parking lots do not meet current and future growth demands.* The parking lot for the swim beach, one of the most popular attractions in the park, is too small to accommodate the large numbers of users. This lot often fills to capacity with overflow parking lining the sides of Northlake Lane, forcing users to walk in the road with vehicle traffic.
8. *Lack of ADA compliant parking and access to amenities.* The swim beach and boat launch parking lots do not provide parking or access to the amenities that meet current ADA regulations.
9. *The TLRA lacks secure, clean, and ADA-accessible restrooms.* The busiest facilities in the park - the swim beach and the non-motorized boat launch - do not have restrooms. Portable chemical toilets are provided in the swim beach parking lot during summer. The non-motorized boat launch becomes extremely busy during the winter when it serves as a base for skiing, skating, and ice fishing.

1.3 NEPA COMPLIANCE

This environmental assessment (EA) was prepared by FHWA as the Federal lead agency in compliance with its regulations implementing NEPA, 23 CFR Part 771, which supplement the NEPA regulations of the Council on Environmental Quality, 40 CFR Parts 1500-1508. The decision to prepare an EA was made in April 2020 and development of the EA was initiated in May 2020.

This EA describes the project's purpose and need and evaluates the No Build Alternative and the Preferred Alternative. The impacts of these alternatives are analyzed in the context of the existing environmental conditions and measures proposed to avoid, minimize, or mitigate potential impacts. The EA also documents the agencies, tribes, and persons consulted during this process.

1.3.1 Scoping Process

The scoping process is an early, open, and continuous process during the preparation of the EA for the purpose of determining the range of issues that will be addressed in the EA and for identifying the

significant issues related to the proposed action (23 CFR § 771.111). Please refer to Section 4 Consultation and Coordination for more information.

1.3.2 Agency Coordination

FHWA coordinated with the USACE, National Marine Fisheries Service (NMFS), ADNR, ADF&G, Transportation Interagency Group, and Alaska State Historic Preservation Office (SHPO).

2 Proposed Action and Alternatives

This chapter provides a description of the alternatives being considered, the No Build Alternative and the Preferred Alternative.

The No Build Alternative discusses the existing conditions, foreseeable conditions should the project not be approved, and effects of not implementing the proposed project. It serves as the baseline for comparing the environmental impacts of the Preferred Alternative. In addition, this chapter describes the development process conducted to identify the Preferred Alternative.

The Preferred Alternative is consistent with the TLRA Master Plan (2007) which was developed with significant public involvement. The TLRA Master Plan process presented a conceptual design for the TLRA that was developed with public and agency input through a scoping process. The scoping process included distribution of an agency scoping letter, a public meeting, and an online questionnaire to solicit agency and public comments. A Draft Master Plan was completed and distributed to the public in February 2007. The Final Master Plan considered all input received from the public and agencies. The TLRA Master Plan does not discuss additional alternatives.

2.1 NO BUILD ALTERNATIVE

Under the No Build Alternative, the proposed project would not be built and the existing access conditions such as indirect routing, poor road surfaces, speeding, and limited visibility that all contribute to inefficient, deteriorating, and unsafe transportation conditions would continue. In addition, no ADA-compliant facilities would be built, thereby limiting user access. The No Build Alternative is not consistent with the TLRA Master Plan (FNSB 2007).

Although some recent development of the TLRA has improved access to the Tanana River and the TFTA by providing roads, management, and facilities for recreational access, the current transportation network used to enter the recreation area continues to limit access to the TLRA. Access limitations are exemplified by indirect routing, poor road surfaces, speeding, limited visibility, and lack of ADA-compliant facilities that all contribute to inefficient and unsafe access to and within the TLRA and other resources beyond.

The No Build Alternative would not meet the purpose and need of the proposed project because the existing conditions would remain and worsen over time, access would continue to be limited to the TLRA and TFTA, would continue to exclude ADA-dependent recreational users, and would be inconsistent with the TLRA Master Plan.

2.2 PREFERRED ALTERNATIVE

The TLRA was developed after 2012 to include a swimming beach on Cushman Lake, hiking trails, the motorized boat launch that connects with the active channel of the Tanana River, and the non-motorized boat launch on the shore of Cushman Lake (FNSB 2007). The purpose of the project is to provide improved public access for recreational users to the TLRA, TFTA, and other Federal, State and Tribal

lands within the Tanana and Yukon River watersheds. To meet the goals of the proposed project and the TLRA Master Plan, the project would complete the following:

- Establish a new entrance point to mitigate the existing speeding, safety, and dust issues associated with the existing Northlake Lane entrance.
- Construct roadways and other improvements to provide access to the motorized and non-motorized boat launches within the TLRA that serve as the primary access points to reach the TFTA.
- Connect the swim beach to the extension of South Lathrop Street that will provide access to all TLRA facilities from the new entrance point on South Lathrop Street.
- Install ADA-compliant facilities to provide access to a wider group of recreation users.
- Install outlets for vehicle headbolt heaters at the boat launch parking areas.

2.2.1 Project Description

The project components are presented below and depicted in Figure 3-4. The project comprises the extension of South Lathrop Street and Northlake Lane, an area for the future placement of an entrance station, parking improvements, restrooms, accessibility improvements, road surface paving and gravel improvements, and overhead power line installation. The project footprint is approximately 18.5 acres.

2.2.1.1 South Lathrop Street, Extension to Levee

The project will begin at the intersection of South Lathrop Street and Sanduri Avenue, where an existing road/rail crossing intersects both roads and travels in an east-west orientation parallel to Sanduri Ave. The project will replace the current intersection/crossing (Figure 2-1) with an ARRC-approved road/rail at-grade crossing. The crossing will include all traffic control devices and signage as required to provide a functional, safer road/rail at-grade crossing, including signage for a 3-way stop intersection south of the crossing that would require northbound traffic to stop prior to the crossing and east and westbound traffic on Sanduri or Pomm Ave to stop prior to the crossing. The crossing will require minor grading and resurfacing extending 50 feet north of the crossing to tie the project into the existing South Lathrop Street. A new road prism will be constructed within the designated section line easement for South Lathrop Street for approximately 1,200 feet continuing due south. The roadway will be surfaced with asphalt concrete pavement. The roadway dimensions will include a 22-foot-wide driving surface with 5-foot shoulders. The roadway will have a 4Horizontal (H):1Vertical (V) slope within the clear zone and a 2H:1V foreslope that extends from the clear zone to create an embankment with a base width spanning up to 65 feet. A ditch will be constructed on the east side of the road to collect storm water and convey storm water to culverts draining to the west.

The roadway extension will cross the TFCL creating a direct route to the TLRA. The road will cross the levee at the same location a crossing was constructed for access during the construction of the levee. The finished grade of the roadway will be constructed approximately 12 inches above the crest of the levee to ensure there is no change in function of the levee. The roadway will be constructed on top of the levee, requiring no excavation of the levee. The existing access road that runs along the north side of the levee will be realigned to cross South Lathrop Street adjacent to the crest of the levee. This would provide a single crossing area for users on the crest as well as on the access road. Realignment of the access road will not require excavation of the levee. Warning and stop signs will be installed on the levee and access road either side of the crossing.

2.2.1.2 South Lathrop Street Extension, Levee to Non-Motorized Boat Launch

Figure 2-1 – View of existing railroad crossing at South Lathrop Street and Sanduri Avenue

Continuing south from the levee and leading into the TLRA, approximately 2,700 linear feet of road will be constructed. This section of roadway will be surfaced with asphalt concrete pavement. The roadway dimensions entering the park will include a 22-foot-wide driving surface with 5-foot shoulders constructed at least 2 feet above the modeled 50-year flood elevation of the Tanana River. The roadway will have a 4H:1V slope within the clear zone and a 2H:1V foreslope will extend from the clear zone creating an embankment with a base width spanning up to 110 feet. All slopes will be seeded to establish a permanent grass turf and 24-inch diameter culverts will be installed where the road crosses existing drainage paths to maintain existing water flow patterns. Approximately 1,200 linear feet south of the TFCL, a 48-inch diameter culvert will be placed under the roadway in an east-west orientation allowing water to continue to flow within the slough between Cushman Lake and Tanana Lake. The roadway extension will continue to a 3-way intersection at the TLRA Boat Launch parking area. The intersection will include all traffic-calming and informational and directional signage as required.

The roadway extension will then cross Groin 9 of the TFCL system (also known as Cinch Street). The finished grade of the roadway will be constructed approximately 12 inches above the top of the groin to ensure there is no change in function of the groin to redirect flood waters. The roadway will be constructed on top of the groin, with no excavation of the groin. Once on the groin, gates will be installed to either side of the road to maintain pedestrian access to the groin, but eliminate non-maintenance vehicle access to the groin at this point.

The roadway extension will continue east along the same alignment as the existing Westlake Lane to the parking area for the Non-Motorized Boat Launch. This final portion of the roadway will use a modified shoulder configuration with 2 feet on the south and 8 feet on the north to closely match the width of the trail system around Cushman Lake.

Pedestrian and bicycle access along both sections of the South Lathrop St. Extension will be provided within the roadway shoulders. The pavement will be striped to clearly delineate traffic lanes and shoulder areas.

2.2.1.3 New Entrance Station Area

A widened area in the South Lathrop St. Extension south of the levee will be built to accommodate a future entrance station that will provide a gateway for the new, main entrance of the park. An area for a small vehicular turn-around will be provided to the south of the station.

2.2.1.4 Northlake Lane Extension

Approximately 700 linear feet into the TLRA, a 3-way intersection and a 500-linear-foot section of new road will be constructed to the east as access to the existing Northlake Lane. Traffic control measures and informational/directional signage will be implemented at this intersection. This section of roadway will be surfaced with crushed gravel. The roadway in this section will include a 22-foot-wide driving surface with 5-foot shoulders constructed at least 2 feet above the Tanana River 50-year flood elevation except as needed to tie into the existing road network. The roadway will have a 4H:1V slope within the clear zone and a 2H:1V vegetated foreslope will extend from the clear zone creating an embankment with a base width spanning up to 100 feet.

The Northlake Lane extension will cross Groin 9 (Cinch Street) near the intersection where the existing Northlake Lane terminates at the groin. The finished grade of the roadway will be constructed approximately 12 inches above the top of the groin to ensure there is no change in function of the groin to redirect flood waters. The roadway will be constructed on top of Groin 9 with no excavation of the groin. Once on the groin, a gate will be installed to the north side of the road to maintain pedestrian access to the groin but eliminate non-maintenance vehicle access to the groin at this point.

The grade of the existing Northlake Lane will be flattened east of the groin, prior to the tie-in to the existing road, to improve sight distance and traffic operations.

Pedestrians and vehicles will continue to share the widened gravel roadway on Northlake Lane.

2.2.1.5 Expand Swim Beach Parking Lot

The existing parking lot (365 feet by 180 feet) will be expanded to 365 feet by 280 feet and will include two double-loaded (stalls on both sides) parking aisles with approximately 120 new parking spaces. Within the existing parking area, an area 170 feet by 25 feet would be graded, paved, and striped to meet ADA standards. Within the paved area, an area measuring 30 feet wide adjoining the paved path to the beach would be reserved for unloading vehicles and as an entry to the swim beach area, provide accessible routes to the new restrooms, and include linkages with the east-west ADA pathway leading to other park facilities.

The 365 feet by 280 feet expanded gravel parking lot will be regraded and a new crushed gravel surface course installed outside of the paved areas for a more compacted, easy-to-maintain surface (Figure 2-2). The embankments will be dressed with topsoil and seeded to provide a vegetated strip for treatment of storm water.

2.2.1.6 New Restroom Installation

Three vault-style restroom buildings will be installed, two at the swim beach parking lot and one at the non-motorized boat launch. The buildings will be constructed using precast concrete, and the restrooms will be ADA-compliant. The precast units are designed for long life in extreme climate conditions and are installed at many locations throughout the State.

2.2.1.7 New ADA Pathways

An ADA-compliant asphalt-paved trail will provide the important connections between the existing playground/pavilion area to the east, the swim beach and parking area, the peninsula playground, and trails to the southwest. The trail will be 1,500 feet long and have a paved width of 10 feet with 2-feet wide gravel shoulders. The trail will include several ADA-compliant access points along the swim beach as

well as an access point to a seasonal ADA non-slip beach access mat that will extend access across the beach and into the water (Figure 2-3).

Figure 2-2 – Existing swim beach view looking north towards parking lot and restrooms (AFLAP 2019)

A gate will be installed on Groin 9 (Cinch Street) just south of the playground parking lot to maintain pedestrian and ADA access to the groin but eliminate non-maintenance vehicle access to the southern portion of the groin at this point.

Figure 2-3 – An example of a seasonal ADA beach access mat

2.2.1.8 Motorized Boat Launch Paving and Electrical Outlets

The existing motorized boat launch parking lot at Tanana Lake would be surfaced with asphalt concrete pavement and striped to indicate stalls for trailers and passenger vehicles including ADA-compliant stalls for both uses. Pedestrian crossings would also be striped. The driveway for the parking lot would be regraded to tie-in to the new South Lathrop St. Extension and will maintain access to the north side of Tanana Lake. Approximately twelve electrical outlets for headbolt heaters would be installed at the parking area[1]. Vegetated strips would be included along the western edge of the paved parking area to manage storm water runoff via infiltration.

2.2.1.9 Non-Motorized Boat Launch Paving and Electrical Outlets

The non-motorized boat launch along the south shore of Cushman Lake and the end of Westlake Lane will be reconstructed and surfaced with asphalt concrete pavement. The project will pave an area approximately 675 feet long and up to 100 feet wide (approximately 1 acre) and expand the parking area

[1] The headbolt heaters would be installed under a differently funded (CMAQ) and separate project.

up to 15 feet to the west and 50 feet to the south beyond the limits of the existing lot. This would reduce the footprint to the north, allowing space for vegetative strips along Cushman Lake. An area 8 feet wide will be reserved as a pedestrian path along the north side of parking area connecting Eagle Trail to the widened shoulder on South Lathrop Street. The fence and gate at the east end of the parking area will be relocated approximately 50 feet further east on the other side of the Eagle Trail access point. The parking area will be striped to indicate both standard and ADA-compliant passenger vehicle stalls as well as dedicated launching and retrieval areas. The project will install approximately 12 electrical outlets for headbolt heaters.

2.2.1.10 Overhead Power Line Extension

The TRRA Improvements Project proposes to construct a new overhead power line to provide electricity to the TLRA. The Alaska Department of Transportation and Public Facilities (AKDOT&PF) would design the utility extension and Golden Valley Electric Association (GVEA) would construct, maintain, and own the infrastructure, as well as provide service[2].

General Description. The proposed power line would be approximately 4,000 feet long. The new overhead power lines would distribute singe-phase power at 7.2 kilovolt (kV). The proposed line would consist of two wires supported by single wood pole structures with or without horizontal crossarms. The wires will be spaced vertically approximately 36 inches if no crossarm in used. If a crossarm is used, wires would be spaced horizontally, approximately 9 feet apart. Wire spacing will be based on the National Electrical Safety Code.

The utility poles will be placed 5 to 30 feet from the west edge of the pavement (shoulder) of South Lathrop Street Extension within the embankment. Utility poles would not be placed within the right-of-way of the levee or within 50 feet of the groin. The wires would have a minimum vertical clearance of 18 feet above the ground wherever the wires cross pedestrian and vehicular traffic (e.g., crossing of roads, driveways, walkways, and the levee and groins).

Tie In, Route, and Access. The overhead power line would tie in to the existing GVEA system at the end pole in the public utility easement approximately 750 feet south of the railroad crossing at approximately latitude 64° 48' 13.47" N, longitude 147° 44' 34.84" W. The line will extend west across South Lathrop Street, then south along South Lathrop Street, cross over the levee and groin, and terminate at the non-motorized boat launch parking area. At the tie-in of an existing utility pole, an underground power line will be installed up to the levee ROW. Outside of the levee ROW, a utility pole will be installed, and the power line will transition to an overhead power line prior to crossing the levee. Access for the construction and maintenance of the power line would be from public roads and South Lathrop Street Extension. Metering equipment would be installed at overhead service connections that will be constructed at the motorized boat launch and the non-motorized boat launch to supply power for the headbolt heaters via buried conduit from a junction box.

[2] The power line would be installed under a differently funded (CMAQ) and separate project.

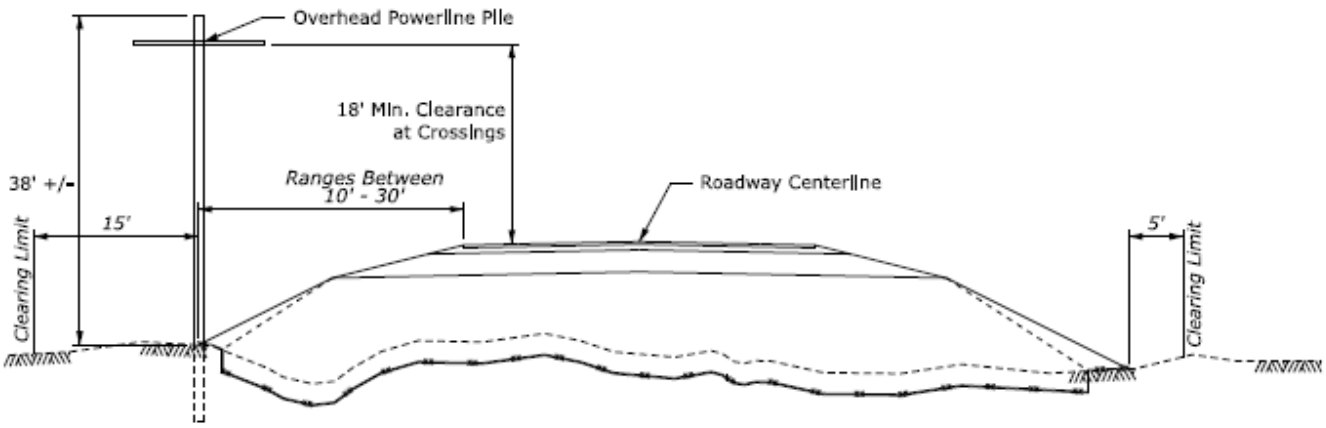

Figure 2-4 – General overview of road section and utility pole placement with clearances

Poles. The project would require approximately 20 utility poles with an average span length between poles of 150 to 330 feet. Pole length is approximately 45 feet and approximately 11 inches in diameter. The crossarm length is approximately 10 feet. The utility poles will be pressure treated with pentachlorophenol (PCP).

Vegetation Clearance. An area 15 feet from centerline alignment of the poles would be cleared of vegetation. Vegetation in this area would be cut to the soil line and trees greater than 4 inches would be removed. Vegetation would be allowed to regrow beneath the line with vegetation maintenance scheduled approximately every five years. During the design phase, efforts would be made to avoid wetlands to the maximum extent practicable.

Installation. At the tie-in of an existing utility pole, an underground power line will be installed up to the levee ROW. Outside of the levee ROW, a utility pole will be installed, and the power line will transition to overhead power line prior to crossing the levee. The poles will be directly embedded approximately 5 to 7 feet in the ground. A truck-mounted crane and auger will drill an oversized hole for placement of the pole. The hole would then be backfilled with gravel. The timber utility poles will stand approximately 35 to 40 feet above the ground.

In areas where the line changes direction, guy wires and anchors would be used to stabilize the pole. In areas where a pole cannot achieve the minimum embedment and cannot be relocated, guy wires and anchors would also be used. Anchors, such as helical screws, would be placed within a radius of 15 feet of the pole, using a skid steer or mini-excavator. Guy wires may extend outside of the roadway embankment, but within the clearing limits.

It is anticipated that a number 2-gauge electrical wire would be installed from a truck based on the existing roads. One pole-mounted 15- or 25-kilowatt (kVA) transformer, with an oil capacity of up to 20 gallons, would be installed at service connections located at the motorized and non-motorized boat launches. Insulators would be installed on utility poles if horizontal wire configuration is used.

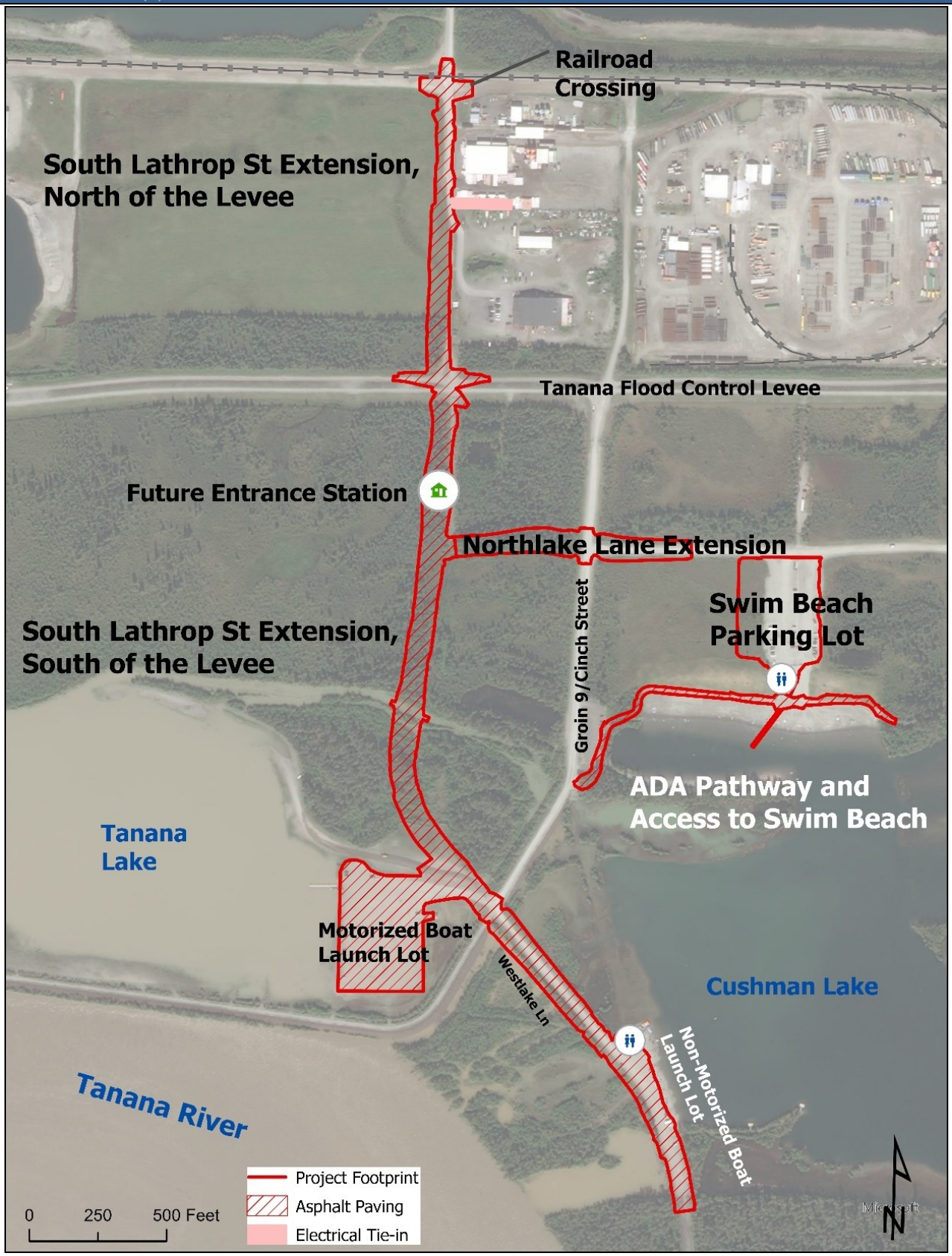

Figure 2-5 – Overview of Preferred Alternative

Table 2-1 – Summary of Overhead Power Line Extension

Component	Description
Total Length	4,000 feet
Voltage	7.5 kV
Pole Type	Single wood pole
Average Pole Length	45 feet
Estimated Number of Poles	20
Span Length Between Poles	150 to 330 feet
Transformer Size	15 or 25 kVA
Estimated Number of Transformers	Two
Transformer Oil Capacity	Up to 20 gallons

2.2.2 Construction

2.2.2.1 Schedule

Construction is planned to take place during the summer months of 2022 and potentially 2023. Project construction will likely start in May of each year and end no later than October due to cold winter conditions. Winter construction in wetland areas is not anticipated. Vegetation clearing will be completed to avoid the bird nesting period to the extent practicable.

2.2.2.2 Construction steps

Generally, the project construction for each area will be sequenced as follows:

1. Install and maintain erosion and sediment control devices, stake sensitive areas, and mark clearing limits.
2. Install traffic control devices and establish detours.
3. Mobilize equipment and materials.
4. Clearing and grubbing of the project footprint.
5. Excavate the existing grade to remove deleterious materials or to allow room for the roadway structural section or vault restroom.
6. Place geotextile fabric.
7. Place and compact various embankment materials.
8. Place culverts. Culverts in active waterways may require dewatering or stream diversion.
9. In areas with pavement, place asphalt pavement and striping.
10. Install overhead power line.

11. In areas of gravel surfacing, place surface course gravel and dust palliative.
12. Apply and establish seeding.
13. Install signs, gates, and other appurtenances.
14. Demobilize equipment and materials.
15. Remove traffic control devices and allow traffic on new road.
16. Remove erosion and sediment control devices.

2.2.2.3 Equipment

The project will require equipment typical of heavy civil roadway construction, including excavators, bull dozers, loaders, vibratory compactors, motor graders, paving screed, various dump trucks, Hydro Ax, water trucks, vacuum trucks, and striping trucks, as well as other various delivery, maintenance, and personnel vehicles. Construction may also require small supporting equipment such as skid steers, forklifts, generators, pumps, augers, chainsaws, and an assortment of hand tools.

3 Affected Environment, Environmental Consequences and Mitigation Measures

This chapter describes the current conditions of the environment and resources and documents the potential adverse, beneficial, or environmental consequences to the environmental resources associated with the No Build Alternative and the Preferred Alternative. Effects for the No Build Alternative are discussed in terms of direct effects and indirect effects that would occur as a result of not improving access to the TLRA. Direct effects are caused by the action and occur at the same time and place (40 CFR § 1508.8). Indirect effects are defined as effects that are caused by the action at a later time or farther removed in distance but still reasonably foreseeable (40 CFR § 1508.08).

Since no project-related construction activities are associated with the No Build Alternative, temporary effects are not discussed for this alternative. The Preferred Alternative addresses temporary effects during construction, direct effects resulting from project construction and associated with the operation and maintenance of the improvements, and indirect effects. If applicable, mitigation measures are proposed to address potential adverse effects of the Preferred Alternative.

The following resources were identified as having potential impacts in association with implementation of the Preferred Alternative and were carried forward in the analysis:

- Transportation
- Land Use and Utilities
- Recreation
- Water Resources/Water Quality/Floodplains
- Wetlands and Non-Wetland Waters
- Vegetation, Fish, and Wildlife
- Social and Economic Changes
- Soils and Geology
- Cultural Resources
- Air Quality/Noise/Energy
- Visual Quality
- Hazardous Materials

There were no Environmental Justice (EJ) populations identified in the project impact area; therefore, EJ was dismissed from further consideration.

Cumulative effects of the project with other past, present, and reasonably-foreseeable future activities are documented in Section 3.13.

3.1 TRANSPORTATION

3.1.1 Affected Environment

3.1.1.1 Existing Road Conditions and Deficiencies

The existing entrance to the TLRA on the east side via South Cushman St. intersects with Northlake Lane. The existing TLRA transportation network and entrance point were not designed to accommodate the growing user capacity and are hampered by indirect routing, poor road surfaces, speeding, and limited visibility that contribute to inefficient and unsafe travel conditions to the TLRA and other recreation areas. The steep ramp and poor visibility of the main entrance point at South Cushman St. contribute to hazardous driving conditions during ingress and egress. Visitors currently access the TLRA from the east entrance and drive west on rough roads to access the boat launch and swim beach while encountering congested, rough, and unpaved roads. Furthermore, lack of parking results in users parking along roads and increasing congestion (Figure 3-3). These roads give rise to fugitive dust conditions that create poor visibility for driving and for pedestrians walking along the roads. The distance from the east entrance also encourages speeding along the Northlake Lane due to the distance from the entrance to the swim beach and boat launch.

3.1.1.2 Traffic Volume

In 2018, there were a total of 69,318 vehicles that visited the park. Traffic counts are from Parks and Recreation vehicle counters located at the existing South Cushman St. entrance (AFLAP 2019).

3.1.1.3 Crash History

The TLRA does not have crash data available. Anecdotal crash history includes an ARRC-reported limited crash or accident history at the proposed railroad crossing location; one traffic-related incident on Northlake Lane in 2014 when a vehicle collision was caused in part by poor visibility from dust.

Figure 3-1 – Overflow parking on Northlake Lane looking east toward Swim Beach Parking Area (2019 AFLAP)

3.1.2 Environmental Consequences

3.1.2.1 No Build Alternative

Direct Effects

If the TRRA improvements are not implemented, the needed transportation and access improvements would not be built and the existing transportation network, road conditions, related deficiencies, and safety conditions would continue.

Indirect Effects

Under the No Build Alternative, unimproved roads within the TLRA would continue to deteriorate, resulting in increased maintenance and eventual replacement. This costs the recreational user and community in travel time and vehicle miles (AFLAP 2016). The TLRA transportation facilities have already greatly exceeded the build capacity of existing roads and entrance. The TLRA was constructed for a visitation level assumed to exceed 100,000 visitors upon the completion of the TLRA (FNSB 2007). However, visitation continues to far exceed this assumption with 198,468 users in 2017 to 207,954 users in 2018 (AFLAP 2019). It is likely that visitation would continue to increase as the TLRA amenities are fully developed with new uses attracting a wider range of visitors.

If the current problems are not addressed, the shared use of Northlake Lane by pedestrians and vehicles and the overflow of parking would continue to pose a safety issue. The lack of accessibility, lack of basic amenities, and lack of road and trail connections between existing facilities will continue to cause unnecessary travel time between the community, the TLRA, and TFTA, increasing costs to the users and costs for operations and maintenance work. Without the Northlake Lane connection, vehicle travel between the eastern end of the park and the boat launch follows an unnatural travel pattern within the park. The Northlake Lane connection, an expanded parking area, and associated amenities as publicly approved in the 2007 TLRA Master Plan, would be more functional, safer, and relieve the burden on existing infrastructure from maintenance costs associated with the increasing traffic volume.

With the No Build Alternative, the current conditions are not addressed, the poor surface, limited visibility and extra distance of the current route will continue to pose undue costs and safety risks to the user and the FNSB. A South Lathrop entrance, as publicly approved in the 2007 TLRA Master Plan, would be more functional and relieve the existing infrastructure from such costs associated with the new traffic volume.

3.1.2.2 Preferred Alternative

The Preferred Alternative proposes to improve the existing transportation elements, construct a new entrance to the TLRA, and improve parking facilities (including the addition of ADA-compliant parking).

Temporary Construction Effects

The Preferred Alternative has the potential to result in temporary delays to traffic and businesses during the South Lathrop St. improvements and the new South Lathrop St. Extension. Similar temporary delays and possible rerouting may affect users of the TLRA during the construction of roads and parking improvements. Parking facilities may be temporarily closed or reduced in capacity. Portions of the swim beach, existing pedestrian trail, and existing restroom may be temporarily closed or have restricted access during construction for a period of several weeks. These effects would be temporary, occurring during construction, and would be minimized by advance posting of construction schedules/information, and with signage redirecting traffic.

Direct Effects

Access to the TLRA would be improved and a more direct route to popular facilities such as the swim beach and boat launch would be provided. The current road network in this area is composed of loose gravel. The project would improve roads by regrading and providing an asphalt pavement surface or using compacted surfacing gravel with a dust palliative for all new gravel surfacing. This would improve fugitive dust conditions significantly and immediately improve the safety of the transportation network within the recreation area. In addition, the proposed road development would provide more direct routing to the TLRA and amenities within the recreation area for users and maintenance staff, designate shorter routes within the park, formalize the road network, and provide more access points between the park and the community (South Lathrop St. and South Cushman St.).

The new entrance, a more direct route to popular facilities, intersections, stop signs, and improved roads, would reduce vehicle speeds. The new entrance would also reduce traffic congestion on South Cushman St. These transportation improvements would provide safer access for users, reduce speeding, eliminate visibility issues with clear line of sight, better control access and security thus reducing illegal activities, provide a more central access point to other facilities within the park, and decrease the travel time and vehicle miles within the TLRA and access routes. New trails, expanded parking areas, new wider roads, and non-motorized routes in the park would encourage multi-modal use, take pressure off vehicle infrastructure, and provide safer, designated routes for bikes and pedestrians. In addition, the project would minimize the use of the levee system by off-road vehicles (ORV) and trucks that often drive along the levee system and Cinch St to access the boat launches or the swim beach. The use of the levee causes damage to the levee and requires additional and unplanned costs to FNSB to maintain the levee to ensure the proper height. The project would connect facilities to the road network of Fairbanks and discourage and restrict use of the levee for access. The project footprint would be within an existing road right-of-way and utilize existing facilities or corridors.

Indirect Effects

A centrally-located, main entrance station on South Lathrop St. would provide an important interface with users and provide information about access to military lands, river conditions, weather conditions, regulations, and other conditions. The entrance station would provide TLRA staff the ability to educate users on safer use practices of the park.

The new roads would be designed to increase long-term reliability and accommodate the existing and future traffic capacity of the TLRA with improved, hardened surfaces. This project would address capacity limits of the existing transportation network at the overused South Cushman St. entrance. In 2015, more than 100,000 vehicles entered the South Cushman Rifle Range via South Cushman St. Since the TLRA was opened in 2014, this gravel road entrance has seen a 60 percent increase in traffic with more than 60,000 vehicles entering the TLRA during 2015 (AFLAP 2019). The new entrance on South Lathrop St. Extension will relieve the high volume of traffic on South Cushman St., which was demonstrated to be approximately 5,000 vehicles higher than the average daily traffic on South Lathrop St. at the Van Horn Road intersection since the opening of the TLRA (AFLAP 2019). The addition of stops signs creating a three-way intersection at South Lathrop Street and Sanduri/Pomm Avenues would provide safer roadway conditions at the railroad crossing. Furthermore, the Preferred Alternative would reduce maintenance and operations costs by upgrading the existing road surfaces such that these can better withstand the vehicle volumes and require less frequent maintenance. A shorter, more hardened section of road would also be much easier and cheaper to improve and maintain than the mile-long gravel Northlake Lane. Though adding a South Lathrop St. entrance will increase the total miles of road that periodically need to be plowed

and maintained, overall maintenance and costs will likely decrease. Routing traffic onto a more hardened road will likely decrease the need for regular maintenance of Northlake Lane and South Cushman St. that may include grading, filling potholes, and adding gravel after erosion.

Mitigation Measures

The following mitigation measures would be implemented to avoid, minimize, and mitigate impacts of the Preferred Alternative to Transportation:

- Communicate construction schedule, traffic, and access notifications to the public in advance using public notices, signage, and TLRA information boards.
- Coordinate and communicate construction schedule with the Department of the Army (DOA) Fort Wainwright in advance of construction.
- Install and coordinate temporary traffic control devices to minimize the impacts to motorists.
- Use traffic safety signs and flaggers to inform motorists, bicyclists, and pedestrians to manage traffic on affected roads during construction activities.
- Install new wayfinding signage to direct travelers to the new entrance.

3.2 LAND USE AND UTILITIES

3.2.1 Affected Environment

3.2.1.1 Land Use

Most of the land directly adjacent to the north, northeast, and northwest of the project area is privately owned industrial lands. To the south, the TLRA provides public access to federally managed lands of the TFTA. The TFTA is not accessible by roads but could be accessed by other boat launch sites. During winter, the TFTA is accessed via an ice crossing. The TFTA is managed by the Army for training and public recreation uses. All property within the project site is publicly owned by the FNSB or the State of Alaska.

The Fairbanks Regional Comprehensive Plan (2005) designated the TLRA area as a *Reserve Area.* This area was reserved under public ownership until sufficient data is available to make definitive planning judgments, such as the TLRA Master Plan. Permitted uses include mining, hunting, fishing, trapping, recreation, forestry, and agriculture. The area immediate to the north is *Heavy Industrial,* defined as manufacturing, processing, and storage that handle explosives or other hazardous materials, or emit noise, air, chemicals, or other pollutants detrimental to surrounding land uses, and should therefore be developed in areas sufficiently buffered to avoid detrimental effects.

*Zoning***.** Most of the project site is currently zoned as *Heavy Industrial* and *General Use-1* by the FNSB. Conditional uses include gravel extraction. When gravel extraction is completed, the lots within the project site will be rezoned to *Outdoor Recreation*. The rezoning process will exclusively involve properties owned by the FNSB and require public involvement and opportunity for testimony. Properties owned by the State of Alaska would not be involved in this process (FNSB 2020).

HI (*Heavy Industrial*) is intended to provide for heavy manufacturing, fabricating assembly, disassembly, processing, and treatment activities (Ord. 88-010 § 2, 1988. 2004 Code § 18.40.010; FNSB 2020).

GU-1 (General Use-1) is intended to be in rural areas where community sewer and water systems are unavailable (Ord. 88-010 § 2, 1988. 2004 Code § 18.44.010; FNSB 2020).

HI/MNO (*Heavy Industrial/Military Noise*) has the same definition as HI with conditional uses approved that include shooting and explosives consistent with military noise. This area is located near South Cushman St. entrance and a small area inside the TLRA and west of the entrance.

Gravel Extraction. Gravel extraction has occurred within the project area for several years under permits issued by the USACE. The State of Alaska, through ADNR, regulates gravel mining and handles the sale of gravel extraction rights to private companies. All privately held rights within the project site are gravel extraction contracts between ADNR and the private companies. These leases would not be renewed upon expiration.

Between 1998 and 2006, the FNSB extracted gravel from a 28-acre portion of the project area south of the Tanana River Levee and west of Groin 9. In June 2006, the FNSB was permitted to begin gravel extraction from an 80-acre portion of the project area south of the Tanana River Levee and east of Groin 9. Remaining gravel extraction activities will continue in the north-central and northwest portions of the project area. Gravel from these areas will be used as daily cover material and cell construction at the FNSB landfill, and, as needed, for construction of the proposed recreation area.

*Land Use Plans***.** The FNSB Regional Plan (2005) designated the project area as a Reserve Area. Two years later, the TLRA Master Plan (2007) was released and, in 2019, the Tanana River Recreation Access Improvements Project (AFLAP 2016, 2019). A complete list of planning documents is presented in Table 3-1.

*Utilities***.** There are no utilities within or currently serving the project area. There are existing utilities running under South Lathrop St. at the Railroad Crossing and intersection with Sanduri Avenue and Pomm Road. Water and sanitary sewer mains are located nearby along South Lathrop St. and South Cushman St. These systems currently do not reach the project area. Water, sanitary sewer, and electric services are available to the north of the recreation area and will be made available for use in the recreation area when needed. GVEA owns and maintains a northeast-southwest trending GVEA power line approximately 150 feet east of the gravel extraction pond east of the Goose Island Causeway.

Table 3-1 – Summary of Land Use Plans of the Proposed Action

Year	Plan Title	Purpose
2005	FNSB Regional Comprehensive Plan	The FNSB Regional Comprehensive Plan provides the framework for citizens and officials to make decisions related to land use and to form the basis for ordinances and programs to guide land development and use.
2007	TLRA Master Plan	This Master Plan outlines the FNSB's plan for the future development and use of the TLRA. The purpose of the plan is to provide the FNSB with a long-term planning guide for gravel extraction and development of the recreation area based on resource opportunities and constraints, development opportunities and constraints, and public needs.
2008	ADF&G Cooperative Agreement	To improve public recreational boating and sport fishing opportunity and access to the Tanana River by completing planning activities (preliminary design and permitting) for the future construction of a boat launch and recreation facility in Fairbanks at the TLRA.

Year	Plan Title	Purpose
2008	TLRA Acceleration Plan	The Acceleration Plan presents a viable means of developing a significant portion of the recreational assets proposed by the TLRA Master Plan in the short term and should generate the potential for high use and user fees. The Acceleration Plan assumes that development efforts under the Acceleration Plan will be coordinated with the Solid Waste Landfill for on-going gravel extraction and stockpiling efforts.
2013	ADF&G Cooperative Agreement	To improve public recreational boating and sport fishing opportunity and access to the Tanana River by completing final design and construction of a boat launch and recreation facility in Fairbanks at the TLRA.
2013	Integrated Natural Resource Management Plan (INRMP), Fort Wainwright	The INRMP establishes policies, programs, prescriptions, projects, and procedures that U.S. Army Garrison Fort Wainwright uses to manage natural resources on Army training lands (e.g., TFTA) in Alaska.
2016	AFLAP Project Proposal - Tanana River Recreation Access Improvements Project Phase I[3]	The purpose of this road construction project is to improve access to the TLRA and to federally-managed lands along the Tanana River.
2017	FNSB TLRA Master Plan Amendment	This amendment adds approximately 196 acres to the 2007 TLRA Master Plan. The intended use of the addition includes but is not limited to development of an Off-road Vehicle Park and a Retriever Pond.
2019	AFLAP Tanana River Recreation Access Improvements Project – Phase II[1]	This project is Phase Two of the TRRA Improvements Project that includes road access, ADA access, and associated amenities within the TLRA, providing more direct and enhanced recreation access to the TFTA on the Tanana River.

Easements and Right-of-Way. The project area is within the TLRA. FNSB owns several parcels of the TLRA and the ADNR also owns parcels within the TLRA. FNSB has a 55-year lease with ADNR to operate and maintain this part of the TLRA. North of the levee, South Lathrop St. runs along a section line with 33 feet of platted right-of-way (ROW) to the east and a 33-foot-wide public section line easement to the west. The levee itself is within a 200-foot-wide ROW. The project area south of the levee is within the TLRA and under lease to FNSB from ADNR.

[3] The AFLAP Project Proposals - Tanana River Recreation Access Improvements Phase I and the AFLAP Tanana River Recreation Access Improvements Project – Phase II were both funded and collectively referred to as the TRRA Improvements Project or TRRA in this EA.

3.2.2 Environmental Consequences

3.2.2.1 No Build Alternative

Direct Effects

Existing land use designations would remain unchanged under the No Build Alternative. The public would continue to access the TLRA from the South Cushman St. entrance. Property access to the industrial properties along South Lathrop St. would not be affected by construction. The TLRA lots would convert to Outdoor Recreation upon cessation of gravel extraction leases. The No Build Alternative would not be consistent with existing land use plans such as the TLRA Master Plan.

Indirect Effects

The No Build Alternative would have no indirect effects to land use.

3.2.2.2 Preferred Alternative

Temporary Construction Effects

Temporary Easements and Rights-of-Way. The section of the project that begins at the intersection of South Lathrop St. and Sanduri Avenue with Pomm Road and heads south for 0.3 miles to the new entrance of TLRA would require an ARRC ROW Use Permit, ARRC Temporary Construction Permit, and an agreement to provide flagging during construction. A temporary construction easement through private property to the west and to the east to tie-in to driveways may be needed.

*Property Acces*s**.** The Preferred Alternative would cause potential temporary property access delays to traffic and businesses during the South Lathrop St. improvements and the new South Lathrop St. Extension. Similar temporary delays and possible rerouting would affect users of the TLRA during the construction. Parking facilities may be temporarily reduced in capacity to provide area to stage construction equipment and materials. Temporary closures of existing roads and facilities may be necessary during construction. Most construction activities will accommodate traffic through the work zone or use alternate detours around the work zone, which may result in delays of less than 10 minutes for users accessing local businesses and the boat launches. The few times when traffic cannot be directed through or around the work zone, roadway closures will be limited to evening and nighttime windows when the businesses and parks are closed. Property access effects would be short-term, improved and restored upon completion of construction activities.

Direct Effects

The TRRA Improvements Project is consistent with land use plans of the FNSB (Table 3-1). The project fulfills elements of the Master Plan and improves access to amenities that have already been completed (e.g., swim beach, boat launches).

*Land Conversion***.** The TRRA Improvements Project will result in approximately 8 acres of land conversion from natural habitat to transportation uses. The project will otherwise not result in land conversion.

Property Access. The existing entrance at South Cushman St. would remain open. The new TLRA entrance on South Lathrop St. would provide a more direct route to the TLRA and would connect with south Fairbanks. The project includes the rebuilding of the ARRC rail/road-crossing corridor.

Easements and Right-of-Way. The section line easement used to extend the roadway is cleared and hardened but remains relatively undeveloped. ADNR Easement or ROW Use Permit and a Tanana Basin

Riparian Management Zone (RMZ) Easement Vacation may be required for the Preferred Alternative. The public use section line easement along the west side of South Lathrop St. may be converted to a public ROW.

Utilities. The project includes the rebuilding of the ARRC rail/road crossing at South Lathrop St. and Sanduri Ave. The section line easement being used to extend the roadway is cleared and hardened but remains relatively undeveloped. At the time writing this EA, there are no known utilities within the project area that would require relocation.

The TRRA Improvements Project includes the construction of overhead power lines that would add electricity to the TLRA consistent with the Master Plan.

Indirect Effects

The TRRA Improvements Project would fulfill elements of the Master Plan and facilitate future completion of planned elements, as described in Plan Section 5 - Development of the 2007 TLRA Master Plan:

- Additions to the trail system within the park, including equestrian trails
- Expansions to picnic and open space areas for spring, summer and fall use (e.g., volleyball courts, horseshoe pits, fire rings, and covered pavilions)
- Campgrounds in three locations, with the largest encompassing 26 acres, and a 6-acre camping area near the Equestrian Park
- Additional restroom facilities
- Frisbee Golf Park
- Off-road Vehicle Park
- An archery range north of the Rifle Range
- Equestrian accommodations

The power line components and the headbolt heaters would be installed as a separately funded project and would benefit operation and maintenance and public use of the TLRA.

Mitigation Measures

The following mitigation measures would be implemented to avoid, minimize, and mitigate impacts of the Preferred Alternative to Land Use:

- Communicate construction schedule, traffic, and access notifications to the public in advance using public notices, signage, and TLRA information boards.
- Maintain access to the TLRA, TFTA and boat launch during construction.
- Minimize impacts to properties on South Lathrop St. north of the levee by reducing the need to convert industrial use lands to transportation uses, during the final design phase.

3.3 RECREATION

This section describes existing recreation opportunities within the project area. Information was gathered from the 2007 TLRA Master Plan and other TLRA planning documents (Table 3-1).

3.3.1 Affected Environment

3.3.1.1 Tanana Lakes Recreation Area

The project is located within the TLRA, an existing recreation area with summer and winter recreation activities that include bird watching, wildlife viewing, dog walking and training, and waterfowl hunting. This project will serve users of the Tanana River corridor, the TFTA, and the TLRA, whose main visitors include residents, active-duty military and their families, and out-of-state visitors who enjoy these activities.

In addition, the TLRA provides abundant recreation opportunities in and around Tanana Lake and Cushman Lake, including:

- Areas for picnics and open spaces along the shoreline
- Cushman Lake swim beach and skating pond during winter
- Tanana Lake boat launch providing access to the Tanana River and access to other resource areas, including the TFTA
- Paddle boat launch on Cushman Lake
- Playground
- All-terrain vehicle (ATV) trails
- Motorized and non-motorized boating
- ADF&G stocked ponds for fishing in summer and winter
- Hiking trails in summer and winter
- Winter recreational uses such as ice skating, ice fishing, ski trails, snowmobiling, and ice racing

The TLRA also provides recreational users access to the South Cushman Rifle Range, the Bonnifield Trail and 100-Mile Loop, and the Goose Island Off-Road Vehicle Area.

South Cushman Rifle Range

The South Cushman Rifle Range, managed by the FNSB, is situated to the east and accessed via the project site. Amenities include a 25-yard pistol range and a 300-yard rifle range.

Bonnifield Trail and 100-Mile Loop

The Bonnifield Trail is a winter access route to the Tanana Flats. The trail begins at the south end of Cushman St., runs along the Goose Island Causeway (South Cushman St.) through the eastern portion of the project area and across the Tanana River by way of an ice bridge.

Goose Island Off-Road Vehicle Area

A portion of the project site was used in the past by the Fairbanks Motorcycle Racing Association for off-road vehicle practice and competition under a use permit granted by the FNSB Division of Land Management; however, it is currently not used for this recreation. This land north of the gravel pit between Groins 8 and 9 is owned by the FNSB and remains an ideal site for this type of trail recreation.

3.3.1.2 Tanana Flats Training Area

Despite being the most defining geographic feature of the Fairbanks and Interior Alaska area (known as the "Tanana Valley"), the Tanana River has not been generally accessible from the main populated areas of Fairbanks. The recent development of the TLRA has vastly improved access to the Tanana River and the TFTA by providing roads, management, and facilities for recreational access.

The US Army manages the TFTA lands for military training, recreation, wildlife conservation, and other natural resources. These are some of the most popular hunting grounds near Fairbanks for their abundant moose, waterfowl, and small game populations. From Fairbanks, summer and fall boaters travel across the Tanana River and up the many sloughs and creeks to get further into the flats and access their preferred hunting area. Larger tributaries (e.g., Wood River, Clear Creek, Little Delta River, and Salchaket Slough) provide even more remote access to distant areas in the flats. In wintertime, snowmachiners, dog mushers, skiers, and fat-tire bikers travel the Tanana and the many winter trails in the flats.

3.3.2 Environmental Consequences

3.3.2.1 No Build Alternative

Direct and Indirect Effects

The No Build Alternative would not change or otherwise directly or indirectly affect recreation opportunities in the project area. The existing conditions would remain such that without the addition of ADA-compliant facilities, federally-managed lands would remain difficult to access by all members of the public. The No Build Alternative would remain out of compliance with the ADA. The No Build Alternative would not address the deficiencies of parking capacity and road system within the TLRA. The No Build Alternative would not be consistent with the TLRA Master Plan.

3.3.2.2 Preferred Alternative

Temporary Construction Effects

During construction, there would be temporary closures and redirecting of traffic that would affect users. These effects would be temporary, and access would be restored upon completion of the project. Mitigation measures communicating construction schedules and TLRA road closures would minimize impacts to TLRA visitors.

Direct Effects

The Preferred Alternative would improve access to the TLRA by providing a new and improved entrance and road network within the recreation area. In addition, new ADA facilities and trails would improve access to the handicapped and elderly population, thereby expanding use to a larger segment of users. The new roads and improved amenities would also improve access to other recreation areas. The proposed project provides the public with an entry point to the Tanana River to access up to 590,760 acres of federally managed lands for recreational uses.

Indirect Effects

The addition of headbolt heaters for vehicles and a power source for the entrance station would benefit recreational users and management. The Preferred Alternative would increase the capacity of the TLRA in the long term, enabling more users to enjoy the recreation area.

Mitigation Measures

The following mitigation measures would be implemented to avoid, minimize, and mitigate impacts of the Preferred Alternative to Recreation:

- Communicate construction schedule, traffic, and access notifications to the public in advance using public notices, signage, and TLRA information boards.

3.4 WATER RESOURCES, WATER QUALITY, AND FLOODPLAINS

3.4.1 Affected Environment

The Tanana basin covers more than 116,000 km^2 and lies south of the Yukon River where discontinuous permafrost has thawed in recent decades (Jorgenson, 2001 as cited in Moran 2007). The basin drains the north side of the Alaska Range with glaciers present in the basin. The Tanana River is a glacier-fed river originating in the Yukon Territory, Canada, and flows west, discharging into the Yukon River. The project area is located along the north bank of the Tanana River, which flows generally northward for 531 river miles through an alluvial valley. The proposed project is within Hydrologic Unit Code (HUC) 19040507 with a permafrost class 12, generally discontinuous permafrost. Land cover are described as land class 1 and 4, needleleaf forest and low and tall shrublands (Moran 2007). The project area is a low-lying area in the alluvial plain with depths to groundwater estimated at 0 feet to 5 feet below the ground surface. The FNSB estimates the Maximum High-Water elevation of the project site to be 432 feet.

Water resources within the TLRA are used for recreation such as fishing, hunting, wildlife viewing, boating, and other water-dependent activities. The project area is surrounded by wetlands, artificial waterbodies, shrubs, trees, and slough, as well as recreation facilities such as roads, parking lots, motorized and non-motorized boat launches, and a swim beach.

Water Quality. The proposed project is not within an identified drinking water protection area and will not impact any known public drinking water sources. The Tanana River is not listed as an impaired waterbody under Section 303(d) of the Clean Water Act (ADEC 2020). The existing storm water runoff is treated by directing runoff to vegetated areas along the downslope edge of roads and parking lots.

Floodplain Setting. Much of the greater Fairbanks area is within the floodplains of the Chena and Tanana Rivers. The Chena River Lakes Project reduces flood damage from the Chena River by temporarily impounding floodwater behind the Moose Creek Dam and diverting it toward the Tanana River during flood events. Tanana River flooding in the Fairbanks area also is reduced by the Tanana River Levee, another element of the Chena River Lakes Project. The Tanana River Levee, on the north bank of the Tanana River, separates Tanana River flood waters from the south side of the Fairbanks area. It prevents floodwater from the Tanana River from flowing into part the river's natural floodplain around Fairbanks. The USACE acquired the lands for the dam and floodway, and the FNSB obtained the lands for the levee and drainage channels. The levee system was constructed by the Corps of Engineers and is owned and maintained by the Fairbanks North Star Borough. Chena River Lakes Project construction began after a 1967 flood that extensively damaged Fairbanks and surrounding communities. The project was completed in 1979 and was first operated for a test fill in 1981.

The entire TLRA area is located within the active floodplain of the Tanana River, but the hydrology has been substantially altered by the construction of the levee system and the creation of Cushman Lake (ABR 2020e). The project area south of the TFCL is within the Tanana River Federal Emergency Management Agency (FEMA) floodplain. Portions of the project lie with the Tanana River Floodway and a 1992 FEMA map identifies that the project area is within Flood Zone A, a special flood hazard area inundated by 100-year flood events.

The portion of the project area located on the river side of the levee is protected by a series of groins extending from the levee to the shoreline of the Tanana River. The Tanana River floods annually and often inundates the TLRA, but the groins restrict floodwater from flowing over the project site and eroding the landscape. Surface water levels in the area are driven by water levels in the Tanana River and rainfall, but

frequent flood events typical of undisturbed floodplains are moderated in the TLRA by the groins (ABR 2020e).

Since the TLRA was developed, an increased number of recreationists drive ATVs or trucks westward along the levee to enter the TLRA via the old Cinch St. corridor. The levee was not designed for this traffic. Consequently, the resulting damages and loss of gravel caused by vehicles require extra unanticipated costs to the FNSB, who now maintains the levee to ensure proper height.

Although owned and maintained by the FNSB, the TFCL and groin system were constructed by the USACE as a USACE Section 408 public works facility. The USACE is responsible for ensuring the integrity and primary function of public works projects are always maintained. The levee system is present in four locations of the project as shown in Figure 3-2:

1. South Lathrop St. TFCL crossing at Saddle Avenue.
2. North Lake Lane Groin 9 crossing at North Lake Lane extension.
3. Groin 9 south of the playground parking lot.
4. South Lathrop St Groin 9 crossing at the intersection with Westlake Lane.

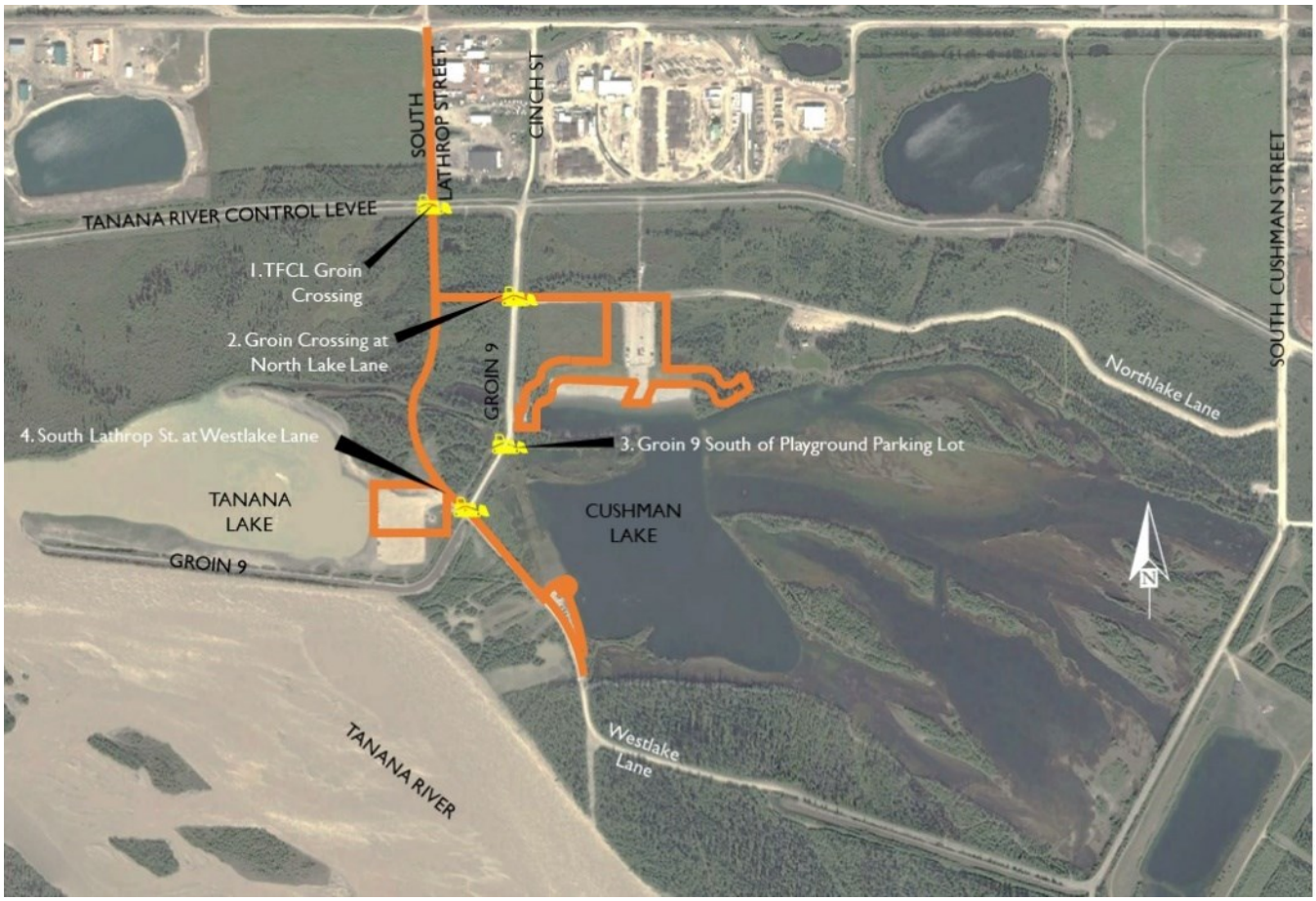

Figure 3-2 – Locations of Section 408 facilities crossed by the TRRA

3.4.2 Environmental Consequences

3.4.2.1 No Build Alternative

Direct and Indirect Effects

The No Build Alternative would not involve construction and would not result in changes to water resources such as streams, sloughs, groundwater, water quality, or floodplains. The No Build Alternative would not have direct or indirect effects on water resources, water quality, or floodplains. No Build Alternative would have no effect to FNSB's Operations, Maintenance, Repair, Replacement, and Rehabilitation obligations. The No Build Alternative would have no direct effects to Section 408 facilities. However, the No Build Alternative would have an indirect effect to Section 408 facilities because access to the TFCL and Groin 9 by unauthorized vehicles (e.g., ORVs) would continue to degrade the facilities and require maintenance.

3.4.2.2 Preferred Alternative

Temporary Construction Effects

Soil disturbances and construction site materials, runoff, and waste would result in minimal impacts on surface water quality. Runoff would be controlled to avoid increases in turbidity and sedimentation in wetlands and lakes. However, construction activities that take place in aquatic resources, such as the construction of a 48-inch culvert between Cushman and Tanana Lakes and other culverts, could result in temporary elevated sediment concentrations and turbidity.

Soil compaction during construction would impact groundwater flows or permafrost conditions, which would reduce the infiltration capacity and increase surface runoff in localized areas. Accidental petroleum spills during construction could occur where water resources, such as groundwater, wetlands, and lakes, are present but the spills would be anticipated to be small in volume and would be contained quickly with the implementation of spill containment mitigation measures. Impacts to water quality during construction would be localized, short-term, and likely not exceed water quality criteria. The effects of the Preferred Alternative would be avoided and minimized with the implementation of mitigation measures. The following permits would be required to protect water quality during construction: Clean Water Act Sections 401, 402, 301(a) and Alaska Pollutant Discharge Elimination System (APDES).

There would be temporary effects to the structure of the TFCL during construction; however, the TFCL would maintain its function and physical capacity to hold back flood flows. The roadway will be constructed on top of the levee and Groin 9, with no excavation of levee or groin required. The alteration of the levee during construction would not affect the ability of local operator to access, operate, and maintain the levee.

Direct Effects

Construction would require vegetation clearing, cut, and fill in floodplains; however, hydraulic analysis has shown there will be no increase in the base flood elevations because cut and fill does not extend above or beyond the existing levee groins in the floodplain. Additionally, the project will meet the requirements of the FNSB Floodplain Development Permit. A new 48-inch culvert would maintain hydrological connection between Cushman Lake and Tanana Lake. Installation of 24-inch culverts would be included in the South Lathrop St. design to retain natural drainage patterns and avoid entrapment of waters.

Vegetation removal, soil disturbance, and paving would increase impervious surfaces, erosion, sediment deposition, and storm water runoff that could affect water quality. Where possible, the Preferred

Alternative alignment would be designed to avoid stream crossings, stream buffer areas, and placement of fill within active stream channels and floodplains. In addition, final design and construction of the roadway would occur in accordance with applicable design standards and manuals. The South Lathrop St. Extension and the power line would require vegetation clearing and the wetlands and floodplain would be filled for the road construction and the utility poles.

The design of the Preferred Alternative would reduce the potential impacts to water quality by following the existing South Lathrop St. footprint to the extent possible, which would reduce the amount of new construction as well as the amount of cut and fill. The entirety of the power line would be within the floodplain. While the project proposes areas of asphalt surfacing (including South Lathrop St., ADA Trail, and launch ramp parking areas), most of the construction footprint will be of a more permeable compacted gravel or vegetated slopes. Impacts to water quality would be addressed by accommodating storm water runoff with non-structural, best management practices (BMPs) such as vegetated infiltration areas (e.g., grass slopes and vegetated strips). The most significant drainage pattern runs east to west and would be impacted by the project but would be maintained with the installation of 24- and 48-inch culverts. Due to the elevated nature of the roadway within the floodplain and the steepened embankment slopes to minimize impacts to the existing wetlands, erosion control is required along the limits of the project in the form of surface roughening and turf establishment. Additionally, construction activities occurring in previously undeveloped areas would receive additional BMPs in the form of fiber rolls or silt fence. Previously developed areas were deemed not to require additional protections as they are unlikely to be adversely impacted by any sediment transport that may occur. Stabilized construction access locations should be utilized to reduce the tracking of sediments onto existing roadways. Direct effects to water quality, water resources, and floodplains would be considered insignificant with the addition of vegetated infiltration areas during design and by maintaining drainage patterns.

Since both the levee and the groin system are part of the USACE Section 408 program, the Preferred Alternative requires USACE review and authorization of any alteration to the levee and the groins to ensure that the alteration does not adversely impact the USACE facilities (33 United States Code (USC) § 408(a)). As such, USACE will act as a cooperating agency throughout the NEPA process to assess the direct and cumulative impacts from the proposed action. This process culminates with the issuance of a Section 408 authorization.

The Preferred Alternative includes the following levee system impacts:

- Road Improvements at South Lathrop St. TFCL crossing, North Lake Lane Groin 9 crossing, and the South Lathrop St. Groin 9 crossing.
- The roadway will be constructed on top of the Levee and Groin 9. The crossings would maintain or increase the elevation of the levee and groin crest, and slope surfaces. The finished grade of the roadway at the crossings will match or be up 12 inches above the levee/groin elevations at these locations.
- *Gate Construction at All Locations* Gates and signs will be installed on the TFCL to direct recreational traffic to a controlled crossing. The gates would allow access for levee operations and maintenance.
- At the Groin locations, gates will be installed to either side of the roads to maintain pedestrian and bicycle access to the groin, but eliminate non-authorized vehicle access to the groin.

During the Section 408 permit application process and through coordination with the USACE, permission would be granted for the alteration or permanent occupation or use of the levee system because occupation or use would not be injurious to the public interest and would not impair the usefulness of the facility. The proposed modifications would have no permanent significant impact to the TFCL and groin system, as these Section 408 facilities would continue to function as designed and the proposed alterations are beneficial to the public.

Implementation of mitigation measures, including FNSB Department of Public Works Storm Water Design Guidelines, would reduce direct effects of the project to insignificant.

Indirect Effects

The Preferred Alternative alignment could result in limited potential future degradation of aquatic resources as a result of the new entrance road coupled with increases in TLRA usage. Pollutants from vehicles could increase and could accumulate on the roadway before washing away as storm water runoff. The vehicle pollutants would include petroleum, nitrogen from exhaust, and trace heavy metals such as copper, lead, and chromium. The effect from vehicle pollutants is anticipated to be minimal with the implementation of mitigation measures that would reduce effects on water resources, water quality, and floodplains. Utility poles treated with PCP have the potential to leach PCP into waters and soils.

Existing levee access by ATVs result in damage to the levee system that is costly for the FNSB to repair; installation of gates at South Lathrop Street – Levee crossing and Groin 9 crossings will reduce damage to the levee system as well as maintenance costs to repair the levee system.

Mitigation Measures

The following mitigation measures would be implemented to avoid, minimize, and mitigate impacts of the Preferred Alternative to Water Resources, Water Quality and Floodplains:

- Minimize the contact of construction materials, equipment, and maintenance supplies with storm water.
- Reduce potential for turbid stormwater runoff from the site through use of measures such as perimeter silt fencing and fiber rolls.
- Reduce potential for soil erosion through use of methods such as temporary seeding, straw mulch, and plastic coverings.
- Maintain water quality using methods that may include using grass buffer strips, organic mulch layers, planting soil beds, and vegetated systems such as swales and grass filter strips that are designed to convey and treat runoff.
- All disturbed, stockpile, and fill areas shall be stabilized to prevent erosion. Increased water turbidity and accumulation of sediment in drainages, sloughs, and other wetlands shall be evidence of insufficient stabilization.
- The Contractor will not use plastic monofilament netting (erosion control matting) or similar material as part of erosion control activities. Acceptable materials for erosion and sediment control include geomembranes, coconut coir matting, tackified hydroseeding compounds, and rice straw wattles.

  Degradable, photodegradable, UV-degradable, oxo-degradable, or oxo-biodegradable plastic netting (including polypropylene, nylon, polyethylene, polyester, poly-jute, etc.) will be avoided during construction. For more information, please refer to

https://www.coastal.ca.gov/nps/Wildlife-Friendly_Products.pdf. If netting is used, it will have a loose-weave, wildlife-safe design with movable joints between the horizontal and vertical twines, allowing the twines to move independently and thus reducing the potential for wildlife entanglement.

- The Contractor will avoid the use of silt fences reinforced with metal or plastic mesh, which can also cause an entanglement hazard to wildlife.
- Leave erosion and sediment control measures in place until vegetation becomes established and covers more than 70 percent of disturbed area.
- Temporary erosion and sediment control products, when no longer required, should be promptly removed before its removal becomes too difficult, potentially damaging new vegetation.
- Do not store fuel, fuel vehicles, or perform maintenance within 100 feet of water bodies and wetlands.
- Stabilize and re-vegetate disturbed areas after work is completed.
- Incorporate measures to protect the water quality.
- Maintain the integrity of the levee system by ensuring the finish grade of the levee at the road crossing will be above levee design elevation.
- Treat PCP utility poles offsite and not near waterways or wetlands.
- No cutting, drilling, sanding, or other measures will occur onsite that will cause treated wood sawdust or coating to sluff off into wetlands.
- PCP-treated utility poles will not be sited in wetlands or waters outside of the new project embankments.
- Implement all regulatory permit mitigation requirements to avoid significant potential impacts.

3.5 WETLANDS AND NON-WETLAND WATERS

The *Wetland and Stream Delineation Report* and the *Wetland Impact and Mitigation Report* for the TRRA project are incorporated into this section of the EA (ABR 2020a, 2020b 2020c, 2020d). Please refer to Appendix B Wetland and Stream Delineation Report and the Wetland Impacts and Mitigation Reports for more information.

3.5.1 Affected Environment

The study area encompasses a total of 31.1 acres (ABR 2020b, 2020d; PND Engineers 2021; Figure 6). The study area included all areas of proposed infrastructure improvements (project footprint) and an additional area around the improvements. These additional areas were defined as:

- 75 feet on either side of the proposed road centerlines
- 25 feet on either side of the proposed trail centerlines
- an additional 25 feet around the proposed parking areas boundaries
- an additional 50 feet around the proposed restroom locations

The mapping of wetlands for the proposed project indicates that 16 National Wetlands Inventory (NWI) wetland and water types occur in the study area. This includes 6 waters and 10 wetland types. Wetlands and waters combined account for 7.5 acres of the study area and the remaining area is classified as upland habitat, 23.7 acres (ABR 2020d, Appendix B; Figure 3-3). Waters and wetlands were recalculated by PND Engineers in 2021 to account for the addition of the overhead power line structures.

The project footprint includes all lands subject to direct disturbance from the project and associated infrastructure. The project footprint is approximately 18.5 acres with wetlands and water accounting for approximately 3.0 acres of the project footprint (approximately 16 percent). The project footprint is contained within the study area as noted above.

Wetlands

Wetlands encompass a total area of approximately 6.5 acres, or approximately 21 percent of the study area. The project footprint includes 3 semi-permanently flooded wetland types (1.1 acres), 1 seasonally flooded/saturated type (0.1 acres), 1 seasonally flooded type (0.1 acres), and 4 seasonally saturated types (1.5 acres). Approximately 2.8 acres of wetlands were mapped within the project footprint (approximately 15 percent). The wetlands are characterized as open sedge marshes, grass- and forb-dominated meadows, shrub wetlands dominated by willows (*Salix* species), and forested wetlands dominated by needleleaf (coniferous) trees and mixed needleleaf and broadleaf deciduous trees. Upland portions of the study area support both needleleaf and mixed needleleaf-broadleaf forests. Areas of gravel fill in the study area are extensive and were classified as Upland.

Waters

Six water classes, encompassing a total area of 0.9 acres or 3.0 percent of the study area, were mapped. These included 2 riverine (0.2 acres), 3 lacustrine (0.7 acres), and one palustrine (0.1 acres) area. Approximately 0.2 acres of waters fall within the project footprint (0.9 percent). The waters cover both lotic (active sloughs) and lentic (impounded) waters. The water types include Lacustrine Seasonally Flooded Littoral Unconsolidated Sandy Shore, Palustrine Permanently Flooded Unconsolidated Bottom, Riverine Permanently Flooded Lower Perennial Unconsolidated Bottom, and Riverine Seasonally Flooded Intermittent Unconsolidated Shore. Of the six water types mapped in the study area, two do not occur within the project footprint. One of these types, Lacustrine Permanently Flooded Littoral Nonpersistent, occurs only outside the footprint along the eastern shore of Cushman Lake. The other, Lacustrine Permanently Flooded Littoral Unconsolidated Sandy Bottom, represents the waters of Cushman Lake at the end of the middle portion of the swim beach that will be made wheel-chair accessible and compliant with the ADA.

Dominant vegetation in the riverine class included emergent vegetation such as *Hippuris vulgaris* (common mare's-tail), *Schoenoplectus pungens* (common threesquare), and *Equisetum palustre* (marsh horsetail). The Lacustrine Class was a very well developed littoral area with both persistent emergent vegetation and rooted aquatic plants and the presence of obligate wetland plant species such as *S. tabernaemontani* (softstem bulrush) and *Typha latifolia* (broadleaf cattail) that indicate the area is typically flooded. The palustrine class includes a ditch that is likely flooded throughout the growing season in most years, and supports obligate wetland plants such as *S. tabernaemontani , E. palustre,* and *Juncus alpinoarticulatus* (northern green rush). Several small isolated depressional features, included as palustrine, were located in the upland forest types lack inflow or outflow, have poor littoral development, and are unvegetated.

Final area of wetland and waters affected environment would be determined during the post-construction analysis with the final as-built drawings.

3.5.2 Environmental Consequences

3.5.2.1 No Build Alternative

Direct and Indirect Effects

Under the No Build Alternative there would be no direct and indirect effects to wetlands or non-wetlands waters.

3.5.2.2 Preferred Alternative

Temporary Construction Effects

Temporary construction effects with the Preferred Alternative could include increased sediment to wetlands and waters from construction and clearing activities. A Storm Water Pollution Prevention Plan (SWPPP) would be prepared prior to construction to mitigate any impacts from sediment. Placement of equipment or movement of construction personnel could impact wetlands that are not within the project footprint, resulting in damage to wetland plants.

The installation of culverts and road bed material have the potential to increase temporarily the turbidity of non-wetland waters, such as streams. A temporary diversion berm comprised of plastic sheathing, sand bags, and concrete barrier may be constructed on existing grade in Stream 2 to direct water around the work area for installation of the 48-inch culvert within the slough connecting Cushman and Tanana Lakes. The berm would be removed after the culvert is installed.

The use and staging of machinery outside of the project footprint during construction could damage wetland vegetation and could potentially compress wetland soils temporarily. Access and staging areas would be located within previously-disturbed areas or contained within the limits of clearing and grading. Contractors may also stage from their own equipment yards in the Fairbanks area.

Direct Effects

Impacts on wetlands in the study area as a result of the proposed project improvements will generally fall into several broad categories including (1) direct loss of wetlands from cut and fill work during construction; (2) direct alteration of wetlands in areas adjacent to the new infrastructure from construction activities; and (3) indirect alteration of wetlands adjacent to the new infrastructure from operation and maintenance activities. Direct loss of wetlands will occur as a result of cut and fill construction within the project footprint for the new proposed access road to the swim beach and the motorized boat launch, the construction of new trails and parking lots, and upgrades to the swim beach berm.

Direct alteration of wetlands in the mapping area outside of and adjacent to the project footprint will occur due to disturbance from construction activities. The use and staging of machinery outside of the project footprint during construction could damage wetland vegetation and could potentially compress wetland soils permanently. Approximately 0.2 acres of waters and 2.8 acres of wetlands would be converted to roads or other infrastructure for the project. A Clean Water Act Section 404 permit would be required for the conversion of any jurisdictional wetland habitat to upland habitat resulting from fill and/or discharge to waters of the U.S. Compensatory mitigation would be required as part of the Section 404 permit.

Indirect Effects

The wetlands and waters types occurring outside the footprint are likely to be altered from the operation and maintenance activities described above that will be associated with the new infrastructure. Indirect alteration of wetlands in those areas is likely to occur from use of the new infrastructure. During operation

and maintenance of the infrastructure, especially the new access road, fugitive dust deposition may occur and may contribute to the alteration of vegetation in wetlands. Additional alteration to wetland vegetation may occur in areas outside of the project footprint from impounded drainages, drifted snow that can alter hydrologic patterns, and from snow plowing and snow dumping activities that can delay plant phenology during spring and contribute additional road gravel, fines, and contaminants to adjacent wetlands.

The proposed roads and trails would bisect wetlands and streams potentially resulting in effects to wetland functions and degradation of habitat due to impounded water if enough culverts are not installed.

As part of the revised design plans for the project, the extension of South Lathrop St. will be paved, which would reduce fugitive dust. Although the extension of Northlake Lane would not be paved, a higher-grade gravel would be used for the road surface that when combined with calcium chloride applications more effectively reduces fugitive dust. There is the potential for PCP from treated utility poles to leach into wetlands and waters (Verbrugge, Kahn and Morton 2018).

Mitigation Measures

The following mitigation measures would be implemented to avoid, minimize, and mitigate impacts of the Preferred Alternative to Wetlands and Non-wetland Waters:

Avoidance:

- Delineate work and staging areas, and clearly mark clearance and fill boundaries to avoid accidental impacts from inadvertent access, equipment operation, clearing of, and fill material placement to wetlands and waters, and other habitats.
- Do not store fuel, fuel vehicles, or perform maintenance within 100 feet of water bodies and wetlands.
- Contractor will not place fill material or debris from clearing or construction outside of the designated construction zone.
- Contractor will not clear vegetation or operate equipment outside the designated clearing zone.
- Coordinate with USACE to implement compensatory mitigation to offset unavoidable impacts to wetlands and waters of the U.S. This may include specifying the amount, type, and location of compensatory mitigation, including any out-of-kind compensation, an approved mitigation bank or in-lieu fee program, or an on-site wetland compensatory mitigation project.

Minimization:

- Reduce impacts to wetland and water resources during design to extent practicable.
- Design installation of culverts and/or drainage mats in wetland areas as needed to minimize road effects on natural drainage patterns and to restore hydrologic flow currently impacted by extensive off-road vehicle use.
- Where possible, the embankment will incorporate areas previously impacted by fill placement or off-road vehicle activity.
- Clearing will be selective and the minimum width necessary for project construction and safe operation.
- Road embankment slopes were steepened from 4:1 to 2:1 during the design refinement process, reducing the overall road width from 76 feet to 61 feet, or a 20 percent areal reduction. This would require 8.5 percent less fill material, overall. The steeper slopes are also anticipated to deter off-road vehicle users from leaving the roadway, which leads to erosion and dust impacts.

- Install 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.
- Natural drainage patterns shall be maintained to the extent practicable by the installation of culverts in sufficient number and size under access roads and trails to prevent ponding, diversion, or concentrated runoff that would result in adverse impacts to adjacent wetlands and other fish and wildlife habitats.
- Retain native weed-free topsoil for use on site (e.g., restoring disturbed habitats and maintaining native seed stock). Contractor will store native weed-free topsoil at an approved site to be determined prior to clearing and grading.
- Reseed or replant disturbed areas with local native vegetation to the extent practicable.
- When clearing areas where revegetation is desired, cut vegetation flush with the ground to allow passive revegetation of disturbed areas.
- Treat PCP poles offsite and not near waterways or wetlands.
- No cutting, drilling, sanding, or other measures will occur onsite that will cause treated wood sawdust or coating to sluff off into wetlands.
- PCP-treated poles will not be sited in wetlands or waters outside of the new project embankments.
- Implement all regulatory permit mitigation requirements to avoid significant potential impacts.

3.6 VEGETATION, FISH, AND WILDLIFE

The *Biological Resources Survey Report for the Proposed Tanana Lakes Recreation Area Access Improvements: AK FNSB TANANA(1)* is incorporated into this section of the EA. Please refer to Appendix C Biological Resources Survey Report (ABR 2020e), the Biological Resources Impacts and Mitigation Reports (ABR 2020f) and the U.S. Fish and Wildlife Service (USFWS) ESA Species report (USFWS 2021) for more information.

3.6.1 Affected Environment

The purpose of the biological resources study was to review and summarize existing data on biological resources, and complete site-specific field surveys to collect current data on botanical and wildlife resources in the project area. The biological resources study area was approximately 23 acres. Field surveys and mapping for vegetation were conducted in July 2020 for non-native and invasive plant species, and potential occurrence of rare plant species. Field surveys for bald eagle (*Haliaeetus leucocephalus*) nests were conducted in early June 2020. A breeding bird survey was conducted in June 2020 to determine the occurrence and abundance of breeding birds and species of conservation concern. Further information can be found in the Biological Resources Study, Appendix C, of this EA.

Vegetation. Most of the study area is a recreation park consisting of existing roads, other constructed facilities, and undisturbed habitats. Outside of the park, the study area includes existing roads, a railroad crossing, and an existing levee. The landscape is characterized by 16 land cover types and 14 vegetation communities. The vegetated portions of the study area support open broadleaf forests, open mixed white spruce (*Picea glauca*) and paper birch (*Betula neoalaskana*) forest stands, open black spruce (*P. mariana*) and tamarack (*Larix laricina*) forests, low and tall willow (*Salix* spp.) scrub, tall alder (*Alnus incana*) scrub, moist forb and bluejoint grass (*Calamagrostis canadensis*) meadows, and aquatic sedge marshes. Barren/gravel fill was the dominant land cover type (9.49 acres) characteristic of the South Lathrop St. Extension, parking lots, and the swim beach. Open water cover includes a small outlet draining a shrub

wetland on the east side of the swim beach, an active slough draining Cushman Lake to the Tanana River, and two small isolated and inundated depressions.

Forest stands occupy the uncleared and undisturbed portions of the study area, with the broadleaf and mixed broadleaf-needleleaf types typically occurring on raised abandoned banks and needleleaf forest types dominant in the low-lying, less well-drained areas. Herb and forb communities occur exclusively on disturbed and often reseeded surfaces, including the fallow field adjacent to South Lathrop St. and the vegetated berm adjacent to the swim beach.

Non-native Plant Species. Nine invasive species are known to occur within the boundaries of the TLRA and at the southern end of South Lathrop St. (Alaska Center for Conservation Science). (Please refer to Appendix C Biological Resources Survey Report, Table 2.) Thirteen non-native plant species were recorded throughout the study area with concentrations around the swim beach parking lot and berm and the fallow field along the western edge of South Lathrop St. Seven high-priority invasive plant species are known to occur in the TLRA and five of these were observed during the survey.

Rare Plant Species. A record search for rare plants within a 100 km radius of the study area resulted in 28 species for which suitable habitat exists in the TLRA; there are no documented records of rare vascular plant species (those with listings of S3 or rarer) in the study area and none were observed during the 2020 field survey.

Wildlife. A list of bird species was compiled using eBird (an online bird observation program created by Cornell Lab of Ornithology; 2020). The eBird database identified 131 bird species composed of 34 waterbirds (waterfowl, loons, grebes, and cranes), 7 seabirds (gulls, terns, and jaegers), 20 shorebirds, 14 raptors (eagles, hawks, falcons, and owls), and 56 landbirds (mostly passerines). Two avian surveys conducted during the breeding season in early June 2020 recorded 34 bird species (3 waterbird, 2 gull, 4 shorebird, 2 raptor, and 23 landbird species). No raptor nests were found during the survey, but an osprey (*Pandion haliaetus*) was observed flying across Cushman Lake adjacent to the swim beach and may be one of a pair that regularly nests on a nest platform along the GVEA Northern Intertie transmission line, approximately 1 mile west of the study area boundary or on a nest platform located 0.5 miles to east of the project site near the racetrack.

Thirty-four mammal species with the potential to occur in the area include 13 species of small mammals (mice, voles, lemmings, and shrews), 2 squirrel species, 1 bat species, 15 furbearer species (including beaver, coyote, and fox), and 3 species of large mammals (including bear), (MacDonald and Cook 2009; UAMN 2020). Wetlands and other waterbodies provide habitat for one amphibian species, wood frog (*Lithobates sylvaticus*). This species was not observed during the survey. The TLRA is connected to the Tanana River, which supports anadromous fish and other native fish species. Wetlands in the study area may support macroinvertebrate species and fish species during flood events. The Tanana River was not within the study area and not part of the biological resources study. Fish surveys were not conducted during the study.

Bald Eagle Survey. No bald eagles or eagle nest platforms were observed in the survey area. Few balsam poplar trees in the study area are large enough to support an eagle nest. The nearest known bald eagle nest, last recorded active in 2004, is located 1.3 km to the southeast from the nearest outer boundary of the survey area. The current status of this nest is unknown.

Breeding Birds. Suitable breeding bird habitat is present throughout the study area. Twenty-six bird species and 111 total birds were recorded during the one-day survey period. Two species, a Boreal chickadee (*Poecile hudsonicus*) and white-crowned sparrow (*Zonotrichia leucophrys*) were observed exhibiting breeding behavior (e.g., carrying food or exhibiting aggressive behaviors consistent with nest/territorial defense).

Endangered Species Act and Special Status Species. No species listed or proposed as endangered or threatened under the Endangered Species Act (ESA) are documented in the study area, and no designated or proposed critical habitat is in the study area (Appendix C ESA Species Report; USFWS 2021). Eight bird species that occur in the study area are species of conservation concern (USFWS 2008). ADF&G lists 42 bird species as at-risk species; twenty-seven of these species are relatively common in abundance in the TLRA study area. The following special status birds were observed in the study area: solitary sandpiper (*Tringa solitaria*), a species of conservation concern by the USFWS (2008) and an at-risk species by ADF&G (2015); lesser yellowlegs (*T. flavipes*), an at-risk species, and blackpoll warblers (*Setophaga striata*), an at-risk species (ADF&G 2015). There are no other federal or state listed species likely to occur in the study area. Please refer to the Appendix C Biological Resources Survey Report for a complete list of avian and mammal species.

Essential Fish Habitat. There is no essential fish habitat (EFH) mapped in the Alaska Anadromous Waters Catalog (AWC) in the project area. However, Alaska recognizes any fish-bearing waterbody as essential fish habitat regardless of species and life stage. Cushman Lake is stocked for recreational fishing purposes but also likely contains native non-stocked species. NMFS considers all freshwaters classified anadromous waters as essential fish habitat but defers to the AWC for classifications. A review of the AWC resulted in chum, coho, Chinook, and sockeye salmon for the Tanana River, chum, and Chinook at the confluence with the Chena River in Fairbanks, and upstream of the mouth of the Chena River on the Tanana, chum salmon. The closest AWC point to the project area lists only chum salmon. Tanana Lake is connected to the Tanana River; however, Cushman and Tanana Lakes are not identified as anadromous waters in the AWC (ADF&G 2021).

3.6.2 Environmental Consequences

3.6.2.1 No Build Alternative

Direct and Indirect Effects

With the No Build Alternative, no construction would be implemented and no direct or indirect effects to vegetation, fish, or wildlife would occur.

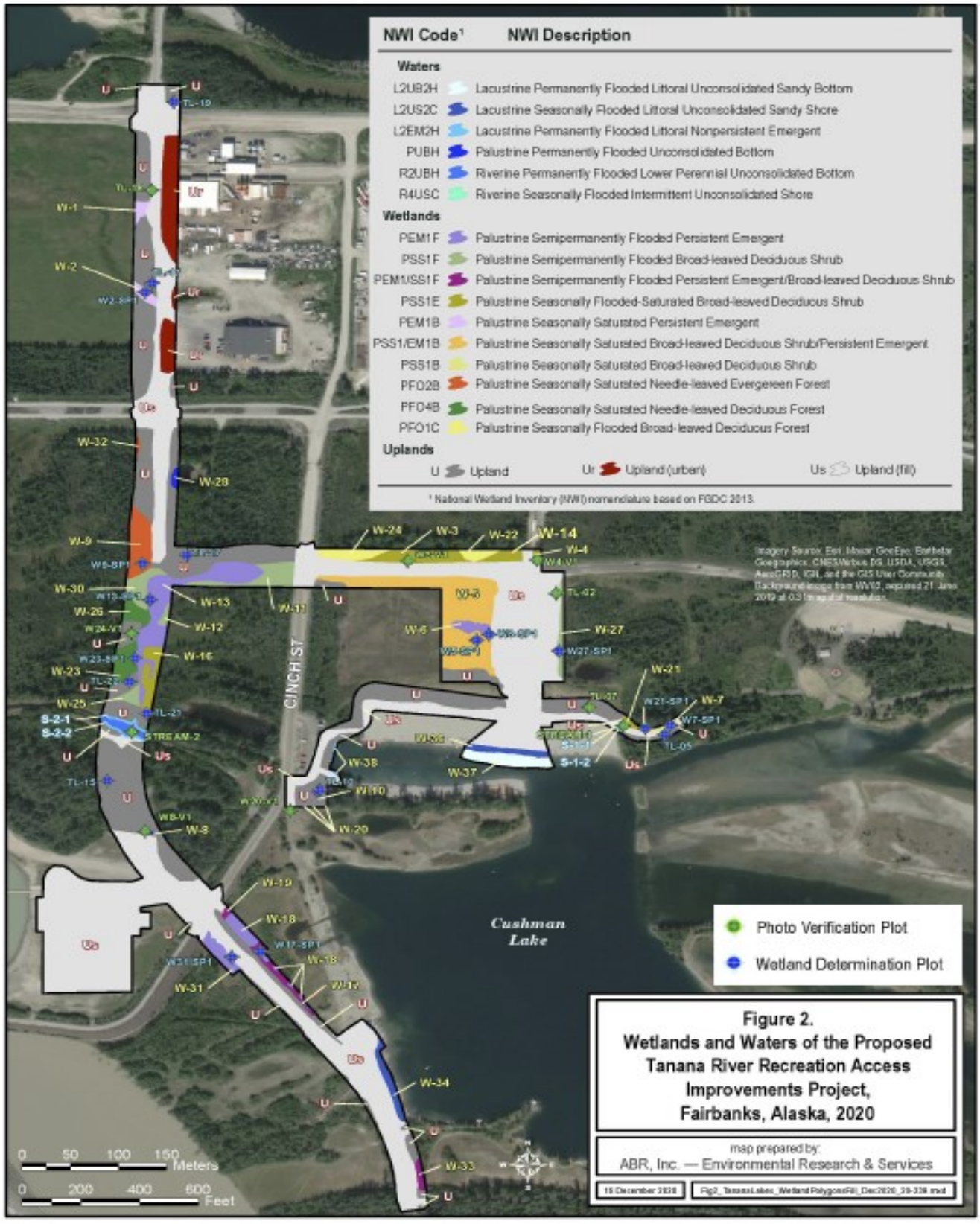

Figure 3-3 – Wetlands and Waters in the study area of the TRRA Improvements Project (ABR 2020a)

3.6.2.2 Preferred Alternative

Temporary Construction Effects

Vegetation. Temporary construction effects related to ground disturbance during construction would be considered low with respect to vegetation. Access and staging areas would be located within previously-disturbed areas or contained within the limits of clearing and grading. Contractors may also stage from their own yards in the Fairbanks area. Some trampling of vegetation would occur on the edges of the project footprint, but these effects would be considered to have a minimal impact on vegetation and land cover. Furthermore, vegetation along trampled areas would likely recolonize during the following growing season.

Wildlife. During construction of the project, there would be temporary localized disruption to local wildlife (including special status avian species) due to construction noise and vegetation clearing. Construction of the Preferred Alternative would require the use of heavy equipment typically used for road construction. Increased noise disturbance in the immediate area and up to approximately 0.25 mile from the construction activity would occur; however, the increased noise levels would be temporary, occurring only during construction activities. This disturbance would cause some wildlife to reduce their use of habitat during construction activities and noise from heavy equipment could invoke a startle response, causing short-term modification of behaviors or abandonment of habitats. This could result in increased expenditure of energy that would be detrimental to individuals, especially during sensitive times of the year, such as breeding and rearing, and could result in wildlife abandoning nests or dens or young potentially resulting in breeding failures or juvenile mortality. The effects would depend upon tolerance levels of species and individuals within species as well as the location of construction activity. Where construction would be adjacent to the *Heavy Industrial* zones, the impact due to noise and activity would be considered low as wildlife species inhabiting these areas likely would be acclimated to increased noise levels. There would be no temporary construction effects to ESA-listed species and critical habitats as they are not present in FNSB area.

Overall, temporary construction effects related to ground disturbance and noise during construction would be considered low with respect to common wildlife species because abundant habitat is available, and noise would be temporary and localized.

Direct Effects

Vegetation. A large portion of the Preferred Alternative would be constructed on previously disturbed land that is part of the TLRA and part of the existing road network north of the levee. The Preferred Alternative would result in permanent conversion or degradation of habitat for vegetation by increasing the area of the road prisms, addition of new roads, construction of a visitor entrance station, construction of overhead power line, and expansion of parking lots and other facilities. The existing roads are approximately 24 feet at South Lathrop St. (with a 1- to 3-foot shoulder) and Northlake Lane is 30 feet wide (with an approximate 15-foot side slope on either side) and will expand to approximately 75 to 100 feet wide (30-foot driving surface and 36 feet on either of side slopes). The project also would result in a small area of permanent conversion of aquatic habitat. Aquatic habitats considered jurisdictional under the Clean Water Act would be mitigated through the permitting process. Approximately 8 acres of vegetation (undeveloped land) would be permanently removed, with Low Willow and Open Spruce-Paper Birch as the largest communities affected by permanent conversion. Maintenance requirements for the overhead power line include clearing a radius of 15 feet from utility pole along the entire alignment. With clearing maintenance every five years, this impact is considered a permanent direct effect. This increases the acres of vegetation

(undeveloped land) permanently removed to approximately 7.5 acres. Effects to plant species and communities would be considered low impact given the rich and abundant availability of habitat within the TLRA and surrounding area. In addition, measures would be implemented during construction to reduce direct effects such as minimizing clearing and grading areas and using only native plant species for planned restoration activities. There were no special status plant species previously recorded or observed during field surveys, thus, no direct effects. Refer to Appendix C Biological Resources Impacts Report for a complete list of affected communities and acreages.

Wildlife. The Preferred Alternative would result in permanent loss of habitat used by wildlife (including special status species). The impact of the loss of habitat would be considered low due to the small size and quality of the habitat lost, the habitat availability in the surrounding area, and conservation areas set aside within the TLRA. Vegetation clearing, grading, and tree removal would be timed outside of the breeding season to minimize impacts to nesting bird species to the maximum extent practicable. Construction activities would take place in habitat for non-special status wildlife species and could result in mortality of individuals of species. In addition, the construction of a new culvert could result in sedimentation and disturbance of aquatic species. However, the culvert would maintain a connection between Cushman Lake and Tanana Lake for aquatic species. Construction activities potentially would remove or disturb nesting habitat for native birds (resulting in nest abandonment and mortality) if clearing and grading activities occur during the breeding season. The impacts to wildlife populations would be considered low due to the abundant wildlife populations in the area, construction on previously disturbed habitat, historic use of area by recreation enthusiasts, and the small area of disturbance. The project would not adversely affect bald eagles as no active nests were observed in the project vicinity and measures would be evaluated and implemented if a new nest or eagle activity is observed in the vicinity.

The installation of overhead power lines would result in avian injury or mortality due to collisions with power lines and infrastructure; avian injury or mortality from electrocution; and an increase in wildlife mortality from predation by attracting more predators to new areas. Utility poles provide perching areas for avian predators. Bald eagles and other large birds have a higher risk of electrocution if electrical wires are not spaced appropriately.

ESA and Species of Concern. There would be no direct effects to ESA-listed species because these are currently absent for this part of Interior Alaska. Effects to species of concern would be similar to those effects discussed for wildlife species.

Essential Fish Habitat. Although Tanana Lake and the Tanana River are hydrologically connected, no impacts would be anticipated to Tanana Lake or Tanana River. The Preferred Alternative would have no effect to EFH because the proposed actions would not occur within EFH of the Tanana River.

Indirect Effects

Vegetation. Construction activities could degrade vegetation outside of but adjacent to the project footprint. The loss of habitats that would be converted to a roadway and other improvements or the potential degradation would have a negligible effect on overall vegetation and land cover of the project area. Furthermore, the habitat within the project is of relatively low quality due to the previous and on-going disturbance from recreational activities such as off-the-road vehicle usage, boating, fishing, gravel extraction, and other recreational activities. There is the potential for non-native plants and invasive weeds to be introduced or dispersed from recreational users. The TLRA would continue to implement the Invasive Weed Management Plan and would provide information to visitors to assist in the control invasive species in the area (FNSB 2005). Through public education and implementation of the weed

management plan, indirect effects related to invasive plant species would be considered low. In addition, heavy equipment will have to be steam cleaned prior to entry onto the project site and material sources must be weed free to reduce the potential of introduction of weeds onto the site.

Wildlife. The loss of habitats that would be converted to transportation and other improvements would have a small negligible effect on local wildlife populations given the availability of habitat and abundant wildlife populations of the TLRA and vicinity. Wildlife species would be able to move out of harm's way during construction and operations; however, the potential for vehicle strikes resulting in injury or mortality of individuals on the improved roads would remain. Changes in wildlife activity patterns due to human activity could result in additional energy consumption by individuals and increase predators, resulting in mortality of wildlife. The project is within a popular recreation area so many of the effects would be similar to any existing risks to wildlife. PCPs from utility poles have the potential to leach into waters, potentially affecting fish and wildlife and their habitat (Verbrugge, Kahn and Morton 2018).

ESA and Species of Concern. There would be no indirect effects to ESA-listed species because they are absent for the area. Effects to species of concern would be like those discussed for wildlife species.

Essential Fish Habitat. The Preferred Alternative would have no indirect effect to EFH because the proposed actions would not occur on EFH of the Tanana River. PCPs from utility poles have the potential to leach into waters, potentially affecting EFH (Verbrugge, Kahn and Morton 2018).

Mitigation Measures

The following mitigation measures would be implemented to avoid, minimize, and mitigate impacts of the Preferred Alternative to Vegetation and Wildlife:

Nesting Migratory Birds. To avoid impacts to nesting migratory birds, the following measures will be implemented by the Contractor.

- The Contractor will implement all guidelines including, but not limited to, avoiding tree removal, vegetation clearing, and grading during breeding bird season to the maximum extent practicable. If activities cannot be avoided during the breeding season, the Contractor will implement pre-construction nest surveys no earlier than 3 days before clearing in accordance with Land Clearing Timing Guidance for Alaska (USFWS and ADF&G 2009). Nest surveys will be conducted by qualified biologists within the project footprint and within a 500 feet buffer of the construction limits of disturbance.
- In the event that active bird nests are observed during the pre-construction surveys, the biologist will delineate no-work buffers. No-work buffers will be set at a distance of 75 feet from the nest, unless a larger buffer is required (e.g., eagles). A qualified biologist may determine that a smaller no-work buffer is appropriate based on existing nest buffer guidance or USFWS approval. No-work buffers will be maintained until nestlings have fledged and are no longer reliant on the nest or parental care for survival as determined by the biologist, or the biologist determines that the nest has been abandoned. In circumstances where it is not feasible to maintain the standard no-work buffer, the no-work buffer may be reduced by the biologist, provided that the biologist monitors the active nest during the construction activity to ensure that the nesting birds do not become agitated. If visual screens and sound barriers between nest and work areas are present, the biologist may reduce the no-work buffer as appropriate. No-work buffers will be delineated using appropriate methods/materials (e.g., exclusionary fencing).

- If nesting migratory birds are found incidentally during construction, the Contractor will cease work and contact the biologist to determine if a nest buffer is required and to establish a no-work buffer.
- In project areas where work has ceased for a period of 10 days or more, the biologist will repeat nesting bird surveys, limited to areas where work has ceased plus a 50-foot buffer.

Migratory Birds, Strigiformes, and Raptors. To prevent collision and electrocution of migratory birds, strigiformes, and raptors, APLIC guidelines to prevent collision and electrocution with power line infrastructure will be implemented.

- This includes but is not limited to the installation of flight diverters, perch guards, and wire covers on power line infrastructure.

Bald Eagles To avoid disturbance impacts to bald eagles and their nests, the Contractor will implement National Bald Eagle Management Guidelines (2007), including but not limited to the measures listed below.

- Prior to construction activities, the Contractor will employ qualified biologist(s) to conduct a bald eagle nest survey within the construction limits plus a one-mile buffer from the construction limits (including clearing, staging, and fill areas) using USFWS approved eagle nest survey methodology). The one mile buffer will be limited to areas north of the Tanana River. Surveys will be conducted from the ground, by vehicle, or by foot. The Contractor will provide the FHWA with a report of the survey identifying nest locations, if any. If a nest is located within the survey area, the FHWA or its designee will contact the USFWS for further guidance using the contact information below.
- The Contractor will employ qualified biologists to monitor eagle nests and implement the following USFWS guidance, Determining Whether Construction or Development Activities May Disturb Nesting Eagles, available at the USFWS website: Guidance on How to Determine the Likelihood of Disturbing Nesting Bald Eagles | Alaska Region (fws.gov).

The Contractor will implement the following measures to minimize visual and auditory impacts associated with human activities near nest sites.

- Maintain a buffer of at least 660 feet (200 meters) between project activities and the nest (including active and alternate nests). If a similar activity is closer than 660 feet, then a distance buffer as close to the nest as the existing tolerated activity will be maintained.
- If an activity is performed closer than 660 feet due to a similar activity existing closer than 660 feet, then all clearing, external construction, and landscaping activities within 660 feet of the nest will be restricted to outside of the nesting season (in Alaska, the nesting season is generally from March 1-August 31).
- Maintain established landscape buffers that screen the activity from the nest.

If these measures cannot be implemented and for additional guidance, the FHWA or its designee will contact the USFWS Alaska Migratory Bird Permit Office, Fairbanks Office, (907) 271-2888 or by email at AK_fisheries@fws.gov and douglass_cooper@fws.gov and bob_henzey@fws.gov.

Invasive Species

- The Contractor will remove dirt, plant, and foreign material from vehicles and equipment before entry into the TLRA to prevent introduction of noxious weeds and non-native plant species into the work site and maintain cleaning and inspection records. Haul vehicles also must be cleaned before initial entry; subsequent entries will not require cleaning unless requested.
- The Contractor must also notify the FHWA Contract Officer a minimum of 48 hours before entry to allow for equipment inspection.
- To avoid introduction and transportation of invasive species, the Contractor will designate a staff member to obtain a certification of completion for the Controlling Invasive Plants in Alaska course found at http://weedcontrol.open.uaf.edu/. The contractor will also be required to implement the Guidelines for Preventing the Spread of Aquatic Invasive Species available at https://www.fws.gov/alaska/sites/default/files/2021-01/Aquatic%20Invasive%20Species%20Prevention%20Guidelines.pdf. The certified invasive species team member will be responsible for implementation of invasive species management during construction as described in the Controlling Invasive Plants in Alaska course materials and other permit measures.
- The Contractor will prevent introduction and spread of weeds by using appropriate measures during movement of sand, gravel, borrow, and fill material as well as sourcing weed-free materials.
- The Contractor will implement measures to keep all equipment working in the project area free of weed seed.
- The Contractor will retain native weed-free topsoil for use on site (e.g., restoring disturbed habitats and maintaining native seed stock). Contractor will store native weed free topsoil at an approved site to be determined prior to clearing and grading.

General Measures

- Delineate work and staging areas, and clearly mark clearance and fill boundaries to avoid accidental impacts to wetlands, waters, wildlife, and other habitats from inadvertent access, equipment operation, and clearing of and fill material placement.
- Clear minimum width necessary for project construction and safer operation. Clearing will be selective and limited to upland trees with diameters 4 inches or less to the extent practicable.
- When clearing areas where revegetation is desired, cut vegetation flush with the ground to allow passive revegetation of disturbed areas.
- The Contractor will not use plastic monofilament netting (erosion control matting) or similar material as part of erosion control activities. Acceptable materials for erosion and sediment control include geomembranes, coconut coir matting, tackified hydroseeding compounds, and rice straw wattles.

  Degradable, photodegradable, UV-degradable, oxo-degradable, or oxo-biodegradable plastic netting (including polypropylene, nylon, polyethylene, polyester, poly-jute, etc.) will be avoided during construction. For more information, please refer to https://www.coastal.ca.gov/nps/Wildlife-Friendly_Products.pdf. If netting is used, it will have a loose-weave, wildlife-safe design with movable joints between the horizontal and vertical twines, allowing the twines to move independently and thus reducing the potential for wildlife entanglement.

- The Contractor will avoid the use of silt fences reinforced with metal or plastic mesh, which can also cause an entanglement hazard to wildlife.
- Temporary erosion and sediment control products, when no longer required, should be promptly removed before its removal becomes too difficult, potentially damaging new vegetation.
- Maintain good housekeeping and implement all BMPs at construction sites (e.g., keep construction areas free of trash, implement SWPPP).
- Reseed or replant disturbed areas with local native vegetation to the extent practicable.
- Treat PCP poles offsite and not near waterways or wetlands.
- No cutting, drilling, sanding, or other measures will occur onsite that will cause treated wood sawdust or coating to sluff off into wetlands.
- PCP-treated poles will not be sited in wetlands or waters outside of the new project embankments.
- Implement all regulatory permit mitigation requirements to avoid significant potential impacts.

3.7 SOCIAL AND ECONOMIC

3.7.1 Affected Environment

*Population and Community***.** FNSB includes the cities of Fairbanks and North Pole, Fort Wainwright Army Base, Eielson Air Force Base, and surrounding communities. There are no residential communities or residences adjacent to or within proximity of the proposed project.

The FNSB population is estimated at 96,849 (US Census 2019). The City of Fairbanks estimate for 2020 indicates a population of 30,996. The TLRA provides recreational opportunities to the community. TLRA provides outdoor recreation access for underserved neighborhoods of South Fairbanks and South Cushman. In many of the blocks in these neighborhoods, most households are classified as low to moderate income. Languages spoken in the FNSB across all age groups are Only English, 89.9 percent, Spanish, 3.35 percent, Other Indo-European Languages, Asian and Pacific Island Languages and Other Languages combined, 6.73 percent. No Environmental Justice populations were identified within a 1-mile radius of the TRRA.

*Adjacent properties***.** Most of the land directly adjacent to the north, northeast, and northwest of the area are privately owned industrial lands. Three commercial lots are adjacent to the east side of the proposed South Lathrop St. Extension (GWC Properties LLC, Fountainhead Development Incl, and Jose L. Mojica). Landowners of properties to the north of the project include USA, Metro Company, Greater Fairbanks Racing Association, Killion Land Company, Alaska West Express, Northland Wood Products, and other private landowners. Industrial and commercial properties include Golden Heart Utilities Wastewater Treatment Facility, Mitchell Raceway, Alaska West Express operations, and Northland Wood Products retail facility. These properties are separated from the TLRA by the Tanana River Levee. There are no residences adjacent to the TRRA project.

Economy. FNSB has a high percentage of younger and prime working age population that could be attributed to government and educational employment related to military bases (Fort Wainwright and Eielson Air Force Base) and the University of Alaska. Tourism and mining also comprise a large percentage of the commercial activity in the region. The TLRA contributes to the local tourism economy and currently has private businesses for boat rentals, guiding, and dog-sled tours that use park resources. High-use Federal recreation sites and Federal economic generators that are accessed by this project include the TFTA and the TLRA, Bonnifield Trail, and the Tanana River corridor. Improving access will increase

use of the area and therefore increase spending on sporting goods and services, resulting in a beneficial impact upon local sporting retailer and guide services.

3.7.2 Environmental Consequences

3.7.2.1 No Build Alternative

Direct Effects

The No Build Alternative would not be consistent with the TLRA Master Plan and would not improve access to the community. The No Build Alternative would not affect property access to adjacent properties.

Indirect Effects

The No Build Alternative could limit the economic growth of Fairbanks from tourism and recreational businesses that use the TLRA.

3.7.2.2 Preferred Alternative

Temporary Construction Effects

During construction, adjacent businesses and park visitors may experience brief traffic delays on the South Lathrop St. improvements north of the levee and within the park. Project construction would provide short-term construction-related employment, which could result in an economic boost to residents of the community. Construction may temporarily close facilities such as restrooms and parking lots. These effects are expected to be short in duration.

Direct Effects

There are no residential uses in or adjacent to the project area. The project would not result in displacement of businesses and residences. This project would improve the transportation network to support the community's economic goals by providing better access for hunting, fishing, and other recreation activities. The improvements proposed with this project will enhance access to these areas by providing a more direct and accommodating route from the community as well as amenities like restrooms, better parking, and ADA-accessible pathways. The project is consistent with the TLRA Master Plan which was developed with significant public involvement.

This project serves all manners of recreationists who wish to more conveniently and safely access the TLRA, the Tanana River, and the TFTA. The boat launch is very popular for hunting and boating access to the Tanana Flats. This facility is especially important for mobility-impaired recreationists with its unparalleled ADA-compliant access to the lakes and Tanana River. The TLRA also provides outdoor recreation access for underserved neighborhoods of South Fairbanks and South Cushman. In many of the blocks in these neighborhoods, most households are classified as low to moderate income. The TLRA, the Tanana River, and the TFTA provide unique and vital opportunities for the greater Fairbanks and Alaska communities. This project will help realize the full potential of these special places.

The ADA-compliant pathways, access, and road connections to the surrounding community are supported by the Eielson Air Force Base Regional Growth Plan's recommended strategy to "continue to work with landowners and developers to establish designated recreation areas, including creating and preserving access to trails and recreation from residential areas" in order to strengthen community-military partnerships. These improvements are also supported by Action 6.6 in the Alaska Statewide Long-Range Transportation Plan, *Let's Keep Moving 2036* (AKDOT&PF 2016) that states facilities shall "incorporate

the needs of the mobility-impaired in facility design to develop a transportation system that is accessible by all Alaskans."

Indirect Effects

Private businesses currently use the TLRA for boat rentals, guiding, and dog-sled tours that contribute to the local economy. Improving access to this area would increase use of the area and therefore increase spending on recreational goods and services, resulting in a beneficial impact to the local economy. The local neighborhood would benefit by providing more convenient access into a popular recreation area and increase exposure to nearby businesses by visitors from the greater Fairbanks area and other areas (AFLAP 2019).

There is potential to improve neighborhood character and stability by reducing the illegal activities, such as dumping trash, in the TLRA and vicinity. The TRRA Improvements Project may indirectly improve the commercial/industrial area along South Lathrop St. with the increased exposure to businesses in the area, particularly those related to recreational and tourism activities. The project would also be anticipated to improve access to the TLRA from nearby neighborhoods (approximately 1.25 miles away).

Mitigation Measures

No adverse impacts are expected to result from the Preferred Alternative; however, the following mitigation measures would facilitate ongoing public involvement and public education and would avoid and minimize impacts to the public.

- Continue coordination and outreach with interested stakeholders using multimedia platforms (e.g., newspapers, radio, websites, and virtual meetings).
- Communicate construction schedule, traffic, and access notifications to the public in advance using public notices, signage, and TLRA information boards.

3.8 SOILS AND GEOLOGY

3.8.1 Affected Environment

Fairbanks is located approximately 100 miles south of the Arctic Circle in the Tanana River Valley. The terrain of the Tanana Valley is characterized as flat to undulating, marked by abandoned river channels, depressions, levees, and gravel pits. The elevation range within the TRRA project area ranges from 420 feet to 440 feet in elevation above mean sea level. Permafrost, generally absent from under rivers and lakes, is present in floodplain sediments (Péwé 1993). Soils of the Tanana Valley are predominantly alluvial deposits ranging from several inches to more than 128 feet thick. Soils within the project area are classified as a mosaic of Eielson fine sandy loam, Eielson/Piledriver complex, Tanana mucky silt loam, Tanana/Mosquito complex, and riverwash (U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) 2020). Gravel deposits along the Tanana River occur up to 154 feet thick and are significant reservoirs for groundwater. The gravel deposits along the portion of the Tanana River within and near the TLRA are ideal for extraction. Gravels previously extracted from this area have been characterized by a grain-size distribution suitable for landfill daily cover or cell construction material and generally “clean” or free of contaminants.

There are several earthquake faults in the Fairbanks region that are considered active (Péwé 1993). The largest, the Denali Fault, is approximately 80 miles south of Fairbanks.

3.8.2 Environmental Consequences

3.8.2.1 No Build Alternative

Direct and Indirect Effects

The No Build Alternative would not result in direct effects or indirect effects because this alternative avoids disruption to the local soils and geology that would be caused by clearing and grading, excavation, and filling of depressions (such as wetlands) and the operation of heavy machinery.

3.8.2.2 Preferred Alternative

Temporary Construction Effects

Construction of the Preferred Alternative could require long linear cut and fill slopes, retaining walls, and stream crossings through currently undeveloped areas of the TLRA that would disturb the existing soils and permafrost layer. Exposed areas of fresh cuts, grading, and fills would be subject to erosion. However, the implementation of sediment and erosion control BMPs would be installed before and during the construction and after construction to limit effects of erosion until vegetation is established.

Direct Effects

Clearing of existing vegetation within the Preferred Alternative alignment would have an impact on the erosion and drainage capabilities of the surface soils, but these issues would be mitigated throughout the design process and with the implementation of BMPs, to avoid or limit impacts on soils and geology. The Preferred Alternative would have low and localized impacts to soils and geology of the area primarily in the areas of the project where new roads are constructed or existing roads widened and improved.

Indirect Effect

The Preferred Alternative would construct new roads and improve existing roads and facilities; these activities would have negligible potential indirect effects to the soils and geology of the area because much of the TRRA project would be built on previously disturbed areas with only a small area affecting undeveloped habitat, approximately 8 acres.

Mitigation Measures

The following mitigation measures would be implemented to avoid, minimize, and mitigate impacts of the Preferred Alternative to Soils and Geology:

- Design and implement erosion and sediment control measures prior to beginning construction.
- Maintain these erosion and sediment control measures throughout the entire construction phase, regardless of season, until vegetation is established. These could include slope protection, erosion, surface water drainage, sediment containment, covering stockpiled materials and construction hauling techniques.
- Natural drainage patterns shall be maintained to the extent practicable by the installation of culverts in sufficient number and size under access roads and trails to prevent ponding, diversion, or concentrated runoff that would result in adverse impacts to adjacent wetlands and other fish and wildlife habitats.
- All disturbed, stockpile and fill areas shall be stabilized to prevent erosion. Increased water turbidity and accumulation of sediment in drainages, sloughs, and other wetlands shall be evidence of insufficient stabilization.

- Retain native weed-free topsoil for use on site (e.g., restoring disturbed habitats and maintaining native seed stock). Contractor will store native weed-free topsoil at an approved site to be determined prior to clearing and grading.
- Reseed or replant disturbed areas with local native vegetation to the extent practicable to improve the revegetation rate and soil stabilization.
- The project will reuse existing road base material to the extent practicable.
- Store materials (e.g., soil, sand, gravel, vegetation, etc.) at an approved site to be determined prior to construction activities. This includes all materials used for construction and materials to be disposed of (e.g., cleared vegetation) at an approved disposal site.
- Implement all regulatory permit mitigation requirements to avoid significant potential impacts.

3.9 CULTURAL RESOURCES

The *Cultural Resources Literature Review and Field Survey Report for Tanana River Recreation Access Improvements Project WFLHD Project Number: AK FNSB TANANA (1)* (SRB&A 2020) is incorporated into this section of the EA.

3.9.1 Affected Environment

FHWA, as the lead federal agency for the project, defined the Study Area for the proposed project as consisting of a one-mile radius around the Project Area of Potential Effects (APE). The FHWA has defined the APEs for the proposed project to consist of the area within 75 feet on each side of proposed road centerlines, the area within 25 feet on each side of proposed trail improvement centerlines, 25 feet around the proposed parking expansion and improvement areas, and 50 feet around proposed restroom upgrades.

Athabascan bands and groups have been present in the area now known as the Fairbanks North Star Borough for many centuries. Historic uses of the Tanana River Valley include subsistence uses. Each band's subsistence activities were dependent on the availability of food resources but consisted mainly of hunting, snaring, and fishing. The proposed project would improve access to federal lands for subsistence use.

A review of the Alaska Heritage Resource Survey (AHRS) to identify previous cultural resources surveys conducted in the study area or APE of the proposed project indicated that no previous surveys have occurred within the study area. A review of the AHRS for any previously documented sites within the study area and APE of the proposed project and did not identify any sites.

Between July 21 and 23, 2020, Steven R. Braund & Associates (SRB&A) conducted a pedestrian survey of the APE which revealed that, overall, the APE has a very low likelihood of containing intact archaeological deposits due to its geographic position within the active floodplain of the Tanana River, and likewise has a low potential of containing intact historic resources due to the extensive disturbance of the area resulting from natural (e.g., seasonal flooding) processes. In addition to the geographic and environmental characteristics of the APE that do not support the preservation of archaeological materials and/or historic features. The TLRA clearly has been subject to large-scale mechanized landscape modifications in the recent past (e.g., gravel mining, earthen berm, and flood control construction, clearing, grading, and extensive filling), possibly associated with the construction of the TLRA itself. The general location has been heavily used in modern times as a recreational area, and modern debris and refuse (e.g., plastic bottles and jugs, discarded appliances, and dimensional lumber fragments) were noted throughout the APE.

The field investigation did not result in the identification of any high potential areas for intensive archaeological investigation or extensive subsurface testing, and no previously-undocumented cultural resource sites were identified during fieldwork. In general, the TLRA APEs are all either located in areas of extensive previous disturbance or modification or located in areas of low archaeological and historic potential due to saturated ground and/or standing water within a dynamic riverine environment subject to seasonal flooding episodes and a high-water table. The presence of substantial amounts of gravel fill used to construct the modern TLRA components supports this assessment, and it is unlikely that unidentified intact archaeological deposits or historic structures or sites are present within the APEs.

In November 2020, the project was modified to include additional paving and electrical utility installation within the existing roadbeds and parking area. The revised APE included the expansion of the existing parking area and beach access at Cushman Lake, upgrades to the existing boat launch parking area at Tanana Lake, extension of the APE along an existing road for access improvements to the restroom upgrade along the southwestern shore of Cushman Lake, and very minor adjustments to the alignments of the South Lathrop St. and Northlake Lane extension. All other areas included in the revised APE are located within the boundary of the original Project APE. Based on the results of the July field pedestrian and windshield survey, which did not identify any undocumented cultural resources, SRB&A considers the areas within the revised APE to have low potential for previously undocumented archaeological or historic resources.

3.9.2 Environmental Consequences

3.9.2.1 No Build Alternative

Direct Effects and Indirect Effects

The No Build Alternative would have no direct or indirect effects to historic or archaeological resources because there would be no change of existing conditions.

3.9.2.2 Preferred Alternative

Temporary Construction Effects

The Preferred Alternative would have no temporary effect to cultural resources because research and field investigation did not result in the identification of any resources eligible for listing in the National Register of Historic Places (Register) and no previously undocumented cultural resource sites were identified during fieldwork. Although no cultural resources were identified, there is always a possibility that unanticipated resources will be found through ground disturbance.

Direct Effects

The Preferred Alternative would have no direct effect to cultural resources because TLRA APEs are all either located in areas of extensive previous disturbance or modification or are in areas of low archaeological and historic potential due to saturated ground, and/or standing water within a dynamic riverine environment subject to seasonal flooding episodes, and a high water table. The presence of substantial amounts of gravel fill used to construct the modern TLRA components supports this assessment, and it is unlikely that unidentified intact archaeological deposits or historic structures or sites are present within the APEs. No historical properties would be affected by the proposed project under Section 106.

Indirect Effects

The Preferred Alternative would have no indirect effects to cultural resources.

Mitigation Measures

The following mitigation measure will be implemented to minimize potential impacts of the Preferred Alternative to cultural resources:

- Should unidentified archaeological resources or human remains be discovered during the project, work must be interrupted until the resources have been evaluated in terms of the National Register of Historic Places eligibility criteria (36 CFR 60.4) in consultation with Alaska SHPO and pending further recommendation from the FHWA in consultation with the Alaska Office of History and Archaeology (OHA). Please note that some sites can be deeply buried and that fossils are considered cultural resources subject to the Alaska Historic Preservation Act.

3.10 AIR QUALITY, NOISE AND ENERGY

3.10.1 Affected Environment

3.10.1.1 Air Quality

The TLRA is located within the Fairbanks Air Quality Zone and within an area of the FNSB that was designated as a PM2.5 nonattainment area in December 2009. The U.S. Environmental Protection Agency (EPA) National Ambient Air Quality Standards (NAAQS) designate six principal criteria pollutants and particulate matter (PM) is one of them. Particulate pollution includes a complex mixture of both solid particles and liquid droplets found in the air with sources from all types of combustion activities (motor vehicles, power plants, wood burning, etc.) and certain industrial processes. Major contributors to particulate emissions include solid fuel burning (e.g., wood) and heating fuel burning (e.g., oil). Other sources of coarse particles include crushing or grinding operations and dust from paved or unpaved roads (ADEC 2019). As of May 2017, the EPA determined the area “Failed to Attain” and reclassified the area as “Serious”. Although the FNSB showed improvements at all monitoring stations, FNSB applied for a five-year extension to achieve compliance with the FNSB Serious Area Attainment Plan (conformity with the plan was due 2019). The Serious State Implementation Plan was adopted on November 19, 2019 (ADEC 2019).

Regulations governing transportation conformity are found in Title 40 of the Code of Federal Regulations (40 CFR Parts 51 and 93). Transportation conformity ("conformity") is a way to ensure that Federal funding and approval goes to those transportation activities that are consistent with air quality goals. Conformity applies to transportation plans, Transportation Improvement Programs (TIP), and projects funded or approved by the FHWA or the Federal Transit Administration in areas that do not meet or previously have not met air quality standards for ozone, carbon monoxide, PM, or nitrogen dioxide. These areas are known as "nonattainment areas" or "maintenance areas," respectively.

3.10.1.2 Noise

Ambient noise levels are consistent with a recreational use area that includes a rifle range, motorized vehicle use, including off-road vehicle use and motorized and non-motorized boat use. Adjacent properties also contribute to the ambient noise levels associated with heavy industrial land use. There are no residential noise receptors in the project vicinity.

3.10.1.3 Energy

Energy use in the project area is primarily from fuel consumed by vehicles traveling to the park’s existing entrance and within the TLRA, as well as road maintenance activities within the park. Overhead power lines would increase energy expenditures; however, this would be a minor increase (approximately 7.2

kV power line). Bringing power to the TLRA would benefit the management and use by powering headbolt heaters for vehicles and the entrance station.

3.10.2 Environmental Consequences

3.10.2.1 No Build Alternative

Direct Effects and Indirect Effects

There would be no direct or indirect effects to noise or energy resources under the No Build Alternative because no construction would be implemented. The existing roads would continue to contribute to fugitive dust conditions of the TLRA and, without the project road improvements, air quality conditions would continue.

3.10.2.2 Preferred Alternative

Temporary Construction Effects

Construction of the Preferred Alternative would result in temporary adverse effects to air quality, primarily from dust and vehicle emissions. Earthwork activities, such as land clearing and ground excavation, could result in the generation of dust associated with the movement of dirt. Construction vehicle and equipment emissions would also occur along the project area during construction. These effects would be localized, temporary in nature, and would not result in violations of air quality standards.

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. Most of the PM2.5 in Fairbanks is thought to be generated by combustion of fuel and wood for heat, electricity, and transportation. Typical PM2.5 sources include power plants, vehicles, wood burning stoves, and wildland fires. Construction of this project would occur during the summer, when cold air inversions do not occur. The exhaust and dust produced during construction would be temporary and a one-time occurrence; this is not the situation with the PM2.5 nonattainment issue, which is seasonal and chronic.

Noise. Noise levels may be higher during construction, especially in undisturbed habitats that would be cleared and graded for construction of roads, than the ambient noise level. The Preferred Alternative would generate the highest and most prevalent construction noise levels during earthwork activities and hauling of materials. Construction noise levels typically would decrease at a rate of 6 to 8 decibels per doubling of distance from the source. Temporary effects of noise would be considered low given the project would be in high industrial use areas and in proximity to gravel extraction facilities within the TLRA.

Energy. Energy use under the Preferred Alternative would result in short-term construction effects due to energy consumed by vehicles and equipment used for construction.

Direct Effects

Air quality. The Preferred Alternative would reduce vehicle emissions by reducing trip distances to the new entrance by approximately 1.25 miles from the City of Fairbanks. Vehicle miles traveled by visitors outside of Fairbanks would be reduced because the new entrance is closer to Mitchell Expressway, a major highway. The project would also improve the roads in the park and minimize the existing fugitive dust conditions related to existing rough, dusty gravel roads by paving and improving the new and existing

roads. Potential air quality affects from an increase in user capacity would be offset by road improvements and a reduction in vehicle miles traveled.

Transportation Conformity

The EPA designated Fairbanks, Alaska as a nonattainment area for the 2006 PM2.5 standard, effective December 14, 2009[4]. Conformity for the PM2.5 standard applies one year after the effective date (December 14, 2010). EPA published the Transportation Conformity Rule PM2.5 and PM10 Amendments on March 24, 2010; the rule became effective on April 23, 2010[5]. This PM Amendments Final Rule amends the conformity regulation to address the 2006 PM2.5 NAAQS.

The TRRA Improvements Project is in the Fairbanks PM 2.5 nonattainment area. As such, the project is required to meet Transportation Conformity Rule requirements found in 40 CFR Part 93.

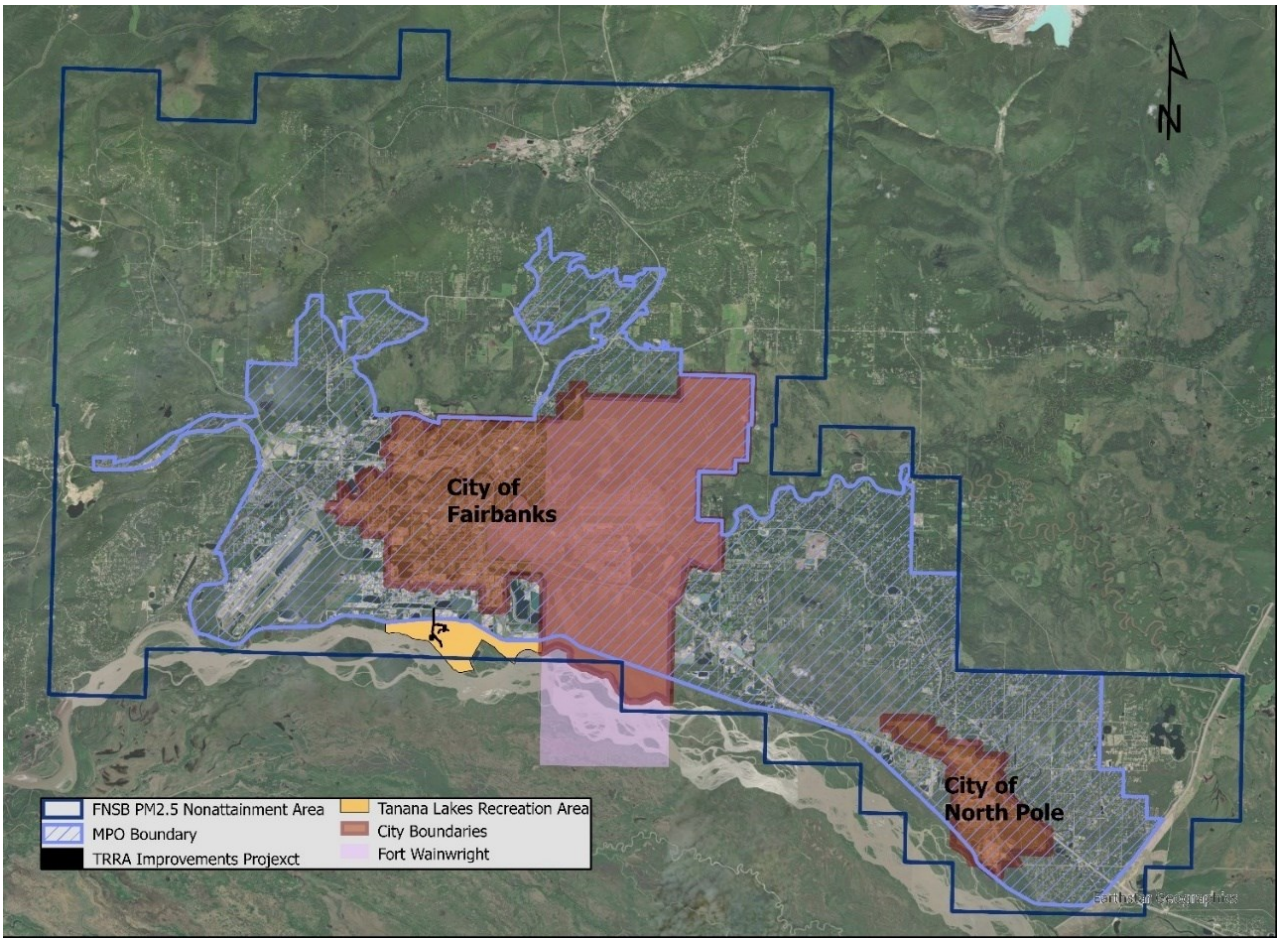

Figure 3-4 – The figure shows the boundaries of the MPO, PM2.5 Nonattainment Area, and project location.

[4] *The PM2.5 nonattainment area includes Fairbanks, the Goldstream Valley area to the north, and the North Pole area to the southeast.*

[5] *U.S. Environmental Protection Agency, 2010. 40 CFR Part 93. "Transportation Conformity Rule PM2.5 and PM10 Amendments; Final Rule." Federal Register, March 24, 2010, Vol. 75, No. 56, p. 14260.*

Fairbanks Area Surface Transportation (FAST) Planning is the Metropolitan Planning Organization (MPO) for the urbanized areas of the FNSB, including the cities of North Pole and Fairbanks. The TRRA Improvements Project, while located just beyond the southern boundary of the MPO area, is within the same PM 2.5 nonattainment area as the MPO, also known as the "donut area" (Figure 3-4). The TRRA Improvements Project was included in the regional emissions analysis for the FAST Planning 2045 Regional Transportation Plan (RTP). On January 30, 2019 the FHWA approved a conformity determination for the FAST 2045 RTP. The TRRA Improvements Project design for the Recommended Preferred Alternative has not changed significantly from what is included the FAST RTP and TIP.

An interagency consultation meeting on the TRRA Improvements Project was held on March 3, 2021. During the meeting the interagency consultation partners concurred that the project was not of local air quality concern and therefore no hot-spot analysis was required. A summary of the meeting is available in Appendix D.

The TRRA Improvements Project will not create any new violations, or increase the severity or number of violations, or delay timely attainment of the national ambient air quality standards. FHWA finds that the TRRA Improvements Project conforms with the SIP in accordance with 40 CFR 93.

Noise. Overall, the noise levels are not likely to increase in the TLRA, which is a heavily-used recreation area. Although noise may be redirected to new areas associated with the new entrance, there are no new noise receptors, including no residential areas. In addition, the new entrance road passes through *Heavy Industrial* areas north of the levee.

Energy. The Preferred Alternative would reduce the travel distance to the entrance of the park by approximately 1.25 miles from the City of Fairbanks. The project would reduce vehicle travel distance within the park to popular park amenities; therefore, the project may result in positive effects to fuel and energy consumption.

Indirect Effects

This shift in vehicle volumes from the east entrance to the new South Lathrop St. entrance would result in minor changes in the location of vehicle emissions; however, this would not be expected to result in measurable long-term changes in the local and regional air quality because any increase in visitation would be offset by reduced vehicle miles traveled and reduced fugitive dust once roads are paved.

Mitigation Measures

No long-term adverse air quality effects are expected; however, during construction, the following BMPs and mitigation measures would be implemented to avoid and minimize temporary effects of the Preferred Alternative to air quality, noise, and energy:

The Contractor will implement the following measures to avoid impacts to air quality and noise:

Air Quality

- Use of plant-based, organic tackifiers or water to control dust in the clearing of land and road grading and on unpaved roads, material stockpiles, and other surfaces which can create airborne dust.
- Fully or partially enclose material stockpiles in cases where application of tackifiers is not sufficient to prevent PM from becoming airborne.
- Cover open-bodied trucks transporting materials that could become airborne when in motion.

- Promptly remove materials from paved streets that have the potential to become airborne.
- Operate all equipment in accordance with manufacturer's recommendations to minimize emissions.
- Shut down idling heavy equipment when not in use.
- If open burning is chosen as the preferred method of disposal of organic debris during the project, the Contractor must use "reasonable procedures to minimize adverse environmental effects and limit the amount of smoke generated," and acquire any applicable permits. Contractor will review the complete description of the open burn information including policies can be found at: http://dec.alaska.gov/air/air-permit/open-burn-info/
- All construction activities will follow all reasonable precautions in accordance to 18 AAC 50.045(d) to prevent particulate matter from being emitted into the ambient air. A dust control plan will be in place during the project to mitigate dust issues.

Noise

- To minimize temporary higher noise levels during construction, all construction vehicles and equipment would be required to comply with FHWA's standard noise mitigation measures.
- 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 relevant noise standards of the EPA.

Since there would be no significant long-term changes to noise levels in the project area from vehicles using the new entrance, no additional noise mitigation measures would be needed for the Preferred Alternative.

No energy mitigation measures would be required or proposed for the Preferred Alternative.

3.11 VISUAL QUALITY

3.11.1 Affected Environment

The project area is not part of a state or federal scenic route or designated as a National Wild and Scenic River. The project area is located within an existing recreation area on the northern edge of the Tanana-Kuskokwim Lowland on the northern bank of the Tanana River, a scenic riparian corridor of Interior Alaska. The project area additionally consists of a mosaic of surface water bodies and land, which makes the area well suited for both water-based recreation and land-based recreation.

3.11.2 Environmental Consequences

3.11.2.1 No Build Alternative

Direct Effects and Indirect Effects.

The No Build Alternative would result in no change to the visual quality of the project area. Therefore, there would be no direct or indirect effects.

3.11.2.2 Preferred Alternative

Temporary Construction Effects

Temporary closures of the TLRA and the presence of construction activities would have temporary localized effects to visual quality. The effects would be considered low to moderate for users of the TLRA.

Direct Effects

The Preferred Alternative constructs new roads and amenities in an existing recreation area. Changes to visual quality would be minimal in relation to the existing landscape, which has been heavily modified by industrial and recreational uses. Approximately 8 acres of undeveloped land would be converted to transportation infrastructure. The area north of the levee would experience widening of the road for a short distance, which would have a low effect to the visual quality of the local area. The project is also located within a heavy industrial area. Given the highly modified landscape, existing levee and groins, and industrial and recreation facilities, direct effects of the project would be considered very low. In fact, the project would enhance the scenic experience of bicyclists, pedestrians, and other users of the TLRA by providing an enhanced and safer transportation network.

The addition of utility poles would be inconsistent with the character of the immediate landscape; however, the impact likely would be a short-term, adverse impact limited to the area of the TRRA Improvements Project. Impacts to visual quality from overhead power lines would be negative, because there are no power lines or utility poles in the TLRA, currently, but insignificant because the area is already modified by human development.

Indirect Effects

The project would facilitate the future expansion of the TLRA to other undisturbed habitats. However, the indirect effects would be considered low in relation to the vast area of scenic value remaining in the TLRA.

Mitigation Measures

The following mitigation measures would be implemented to avoid, minimize, and mitigate impacts of the Preferred Alternative to Visual Quality:

- Reseed or replant disturbed areas with local native vegetation to the extent practicable.

3.12 HAZARDOUS MATERIALS

This section describes the potential impacts of the TRRA project from hazardous materials and spills. This section is based on the *Phase I Environmental Site Assessment. Tanana River Recreation Access Report* (Shannon and Wilson 2020).

3.12.1 Affected Environment

Prior to its conversion to a recreation area, TLRA was an unmanaged natural area often used for illegal activities like trash-dumping, burning cars, shooting, and criminal activities. A Phase I Environmental Site Assessment field reconnaissance was conducted on July 30, 2020. Evidence of illegal dumping of small amounts of household trash, small car parts, appliances, and miscellaneous debris were along roadways, primarily in the unimproved southern extent of South Lathrop St. south of the Tanana Levee (Shannon and Wilson 2020). No hazardous materials were observed in the study area during the field reconnaissance.

A review of the National Priorities List (NPL), those properties assigned the EPA's highest cleanup priority, found no listed NPL sites for the property or within a one-mile radius of the property. Areas surrounding the project are used for commercial and industrial purposes that may affect the TRRA project, including the TLRA. Some of these sites appear on the ADEC Contaminated Sites Database but do not meet the definition of a Recognized Environmental Condition (REC) for the project (Shannon & Wilson 2020). However, there may be RECs associated with the study area and with nearby properties that have

the potential to impact the TLRA (Shannon and Wilson 2020). No locations of concern were observed or otherwise identified within the TLRA but properties adjacent to the project have the potential for releases to the project area and the TLRA. These include active and/or abandoned above- or below-ground heating oil storage tanks located on the property or adjoining properties; potential leaks, drips, and spills originating from vehicles or heavy equipment; potential releases of hazardous materials and petroleum products originating from illicit dumping of abandoned vehicles and miscellaneous debris. Potential for contaminant releases from current use of the properties along South Lathrop St. include wholesale chemical distributor and an auto body shop (Shannon & Wilson 2020).

3.12.2 Environmental Consequences

3.12.2.1 No Build Alternative

Direct and Indirect Effects

The No Build Alternative would not be expected to have a direct or indirect effect on the release of hazardous materials into the environment because no known hazardous materials were identified within the project area and no construction activities that could result in an incidental release would take place.

3.12.2.2 Preferred Alternative

Temporary Construction Effects

Prior to the development of the TLRA, the area was used for illegal activities and illegal dumping. Although the area was cleaned prior to the development, the potential for hazardous materials disturbance or release during construction remains. Any release to the environment during construction has the potential to adversely affect the health and safety of construction workers. Construction activities may result in release of hazardous materials should BMPs fail. Potential releases associated with construction include solvents and motor and lubricating oils. ADEC regulations for accidental spills of hazardous materials would be followed for any spills that occur. Together with proposed mitigation measures, effects to the environment would be low.

Direct Effects

As there are no known hazardous materials in the project area, the Preferred Alternative would have no direct effect on the release of hazardous materials into the environment. While there are no known hazardous materials in the study area, there is the potential for hazardous materials to be found.

Indirect Effects

The project would introduce a new entrance road and redirect user traffic to this new entrance as well as accommodate an increase in TLRA users. This has the potential to introduce leaks, drips, and spills from vehicles. In addition, there is the potential for hazardous materials releases that originated from historic illicit dumping and illegal activities on the project area during construction. Pole mounted transformers have the potential to leak oil.

Mitigation Measures

The following mitigation measures are required by the FHWA to avoid, minimize, and mitigate impacts of hazardous materials during the construction of the Preferred Alternative:

- The Contractor would prepare and implement a Spill Prevention, Control, and Countermeasure (SPCC) Plan during construction.

- If unexpected contamination is encountered during construction, all work in the contaminated area would be halted and the contracting officer contacted immediately.
- All contaminated material will be handled and disposed of in accordance with ADEC regulations.

3.13 CUMULATIVE OR INTERRELATED EFFECTS

Cumulative effects are defined as effects which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period (40 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. Only those resources with permanent adverse impacts are discussed in this section.

Past actions that have had the most measurable effect on the project area include implementation of the TLRA Master Plan and amendments such as the development of roads, picnic areas, and the swim beach and continued gravel extraction operations. Currently, there are no known planned future public projects in the vicinity of the TLRA, including the TFTA. Future development and expansion of the TLRA is planned in accordance with the existing regional plans and the TLRA Master Plan. These include additional recreation facilities such as an archery range, frisbee golf park, ice skating, ski loop trail, and an equestrian park and trail system. Future site development of the TLRA would be dependent upon funding. While the Preferred Alternative would facilitate future development of the TLRA, these effects combined with past and future development would have no cumulative effects to the following resources: Transportation, Land Use, Social, Environmental Justice, Economic and Community, Noise, Soils and Geology, Air Quality, Noise, Visual Quality, and Hazardous Materials. Therefore, these resources are not analyzed further.

3.13.1 No Build Alternative

Effects of the No Build Alternative when combined with past, present, and reasonably foreseeable future actions are not expected to adversely affect resources described above.

3.13.2 Preferred Alternative

Water resources, water quality, and floodplains. The greatest impacts to the floodplain are from past construction of a flood control levee that is protected by a series of groins extending from the levee to the bank of the Tanana River. Past, present, and future use of the TLRA could result in cumulative effects to water quality, but with the implementation of mitigation measures and BMPs any effects would be low. Combined with past, present, and reasonably foreseeable future actions, the Preferred Alternative would not be expected to significantly contribute to cumulative effects to water resources, water quality and floodplains.

Wetlands. Past activities in the project area have impacted wetlands through ground-disturbing and development activities, though most of the land outside of the TLRA remains undisturbed (except for Fairbanks and other cities). Future development plans are identified in the TLRA Master Plan (FNSB 2007). These future developments could impact wetlands (except for areas identified as conservation areas). The proposed project and future development would increase access to the TLRA that could in turn 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 Preferred Alternative would not be expected to significantly contribute to cumulative effects to wetlands.

Fish, Wildlife, and Vegetation. The TLRA covers 980 acres consisting of approximately 900 acres of wetland, water forest, and other habitats that is surrounded by thousands of acres of undeveloped land/natural habitat. The current developed land within the TLRA is approximately 70 acres (including roads, levee system, parking lots, and trails). The 18.5-acre project footprint includes the development of approximately 8 acres of undeveloped land (habitat). The TRRA would facilitate future planned development; however, the proposed and existing development is small, approximately 7.7 percent of the recreation area. Future development as noted in the Master Plan could develop an additional approximately 160 acres (not including proposed new roads). This would leave approximately 745 acres of undeveloped land (of 980 acres). Additionally, mitigation measures would be implemented to avoid and minimize effects. Combined with past, present, and reasonably foreseeable future actions, the Preferred Alternative would not be expected to significantly contribute to cumulative effects to fish, wildlife, and vegetation.

3.14 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Irreversible and irretrievable commitment of resources refers to impacts on or losses to resources that cannot be recovered or reversed. An irreversible commitment is an impact to a resource that cannot be regained, such as the extinction of a species or loss of cultural resources. An irretrievable commitment is and impact on a resource that is lost for a period, such as the loss of agricultural production or use of renewable resources. 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.

3.15 SECTION 4(F) AND SECTION 6(F) EVALUATION

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.

Section 4(f) applies to the TRRA project, because there is a use of the 4(f) property (the TLRA). As it applies to the project, the use is the permanent incorporation of TLRA land into a transportation facility, specifically the South Lathrop St. Extension and the new Northlake Lane Extension.

A Section 4(f) Net Benefit Programmatic Evaluation (Appendix E) was issued for the proposed project. In order to qualify, a "net benefit" is achieved when the transportation use, the measures to minimize harm, and the mitigation incorporated into the project results in an overall enhancement of the Section 4(f) property when compared to the future No Build Alternative, the avoidance alternatives, and the present condition of the Section 4(f) property, considering the activities, features, and attributes that qualify the property for Section 4(f) protection.

Section 6(f) of the Land and Water Conservation Fund (LWCF) Act of 1965 applies to projects, regardless of funding source, that cause impacts to any public park, recreation area, or facility acquired or developed with LWCF. The LWCF Act of 1965 (Public Law 88-578, which is codified as 16 USC 460), provides

funding for parks and recreational facilities across the United States. Section 6(f)(3) of the LWCF Act, hereinafter referred to as Section 6(f), contains provisions to protect federal investments in park and recreation resources and to ensure that the public outdoor recreation benefits achieved via the use of these funds are maintained.

The following LWCF Section 6(f) properties are within the TLRA listed by LWCF Reference Number, Tax Lot, and Parcel Number, respectively: 02-00392, 2709, 171654; 02-00404, 2702, 171565, and 02-00413, 2707, 171620. There are no affected Section 6(f) properties within the project area. Therefore, a Section 6(f) evaluation is not warranted because the project would not impact Section 6(f) properties of the TLRA and would not convert existing recreational use lands of the TLRA to any other land use.

4 Consultation and Coordination

This section describes the consultation and coordination activities implemented during the environmental review process with potential project stakeholders, including local, state, and agencies, tribes, and the public. The purpose of consultation and coordination is to ensure public awareness and understanding of the project, gain input of potentially affected interests, and appropriately consider input in the project development process.

An integral part of the environmental review process is engagement of stakeholders, such as other agencies, Tribes, and the public. The goal of the consultation and coordination process is to develop public awareness and understanding of the project, gain input from potentially affected interests, and then to appropriately consider that input in the project development process.

4.1 AGENCY INVOLVEMENT AND COORDINATION

The FHWA initiated pre-application coordination with USACE regarding Section 404 and Section 408 facilities. The first meeting, held on June 11, 2020, included a discussion of USACE Section 404 and a focus on Section 408 requirements for TRRA Project. USACE was provided with a project overview and preliminary details to inform discussion. USACE outlined the typical process and expectations for the proposed project. A second meeting, held on January 6, 2021, focused on identifying any concerns USACE may have prior to submittal of the Section 408 review package.

The FHWA submitted a Section 106 consultation request, dated January 29, 2021, to the Alaska SHPO for concurrence with the results of the cultural resources technical finding of No Historic Properties Affected for the TRRA Improvements Project and concurrence with the FHWA Categorical Exclusion for geotechnical studies. On February 23, 2021, SHPO notified the FHWA that SHPO concurs with the findings. As stipulated in 36 CFR 800.3, other consulting parties such as the local government and Tribes are required to be notified of the undertaking.

The FHWA initiated the Transportation Interagency Group meeting to evaluate the project's transportation conformity with air quality regulations in February 2021. The interagency group meeting was held on March 3, 2021. During the meeting, the interagency consultation partners concurred that the project was not of local air quality concern and therefore no hot-spot analysis was required. The TRRA Improvements Project will not create any new violations, increase the severity or number of violations, or delay timely attainment of the national ambient air quality standards. FHWA finds that the TRRA Improvements Project conforms with the SIP in accordance with 40 CFR 93. A meeting summary is available in Appendix D.

4.2 TRIBAL COORDINATION

On October 7, 2020, the FHWA contacted the following eight tribal governments requesting consultation via letters sent by email (Appendix F).

- Healy Lake Village
- Mentasta Traditional Council
- Native Village of Eagle
- Native Village of Tanacross
- Native Village of Tetlin
- Northway Village
- Village of Dot Lake
- Tanana Chiefs Conference

On December 22, 2020, January 13, 2021, and January 14, 2021 the FHWA followed the letters with telephone calls to confirm contact information and receipt of the consultation letter.

On February 22, 2021 the FHWA sent an additional email regarding tribal interest in participating in government-to-government consultation regarding the project with a request to select one of three options in response to the email:

- Interested in participating in this undertaking as a consulting party in the project;
- Interested in continuing to receive periodic updates on the project development; determine at a time of their choosing if contacting Western Federal Lands Highway Division (WFLHD) to participate as a consulting party in the project; or
- Not interested in participating in this undertaking as a consulting party in the project.

4.3 PUBLIC INVOLVEMENT

FNSB has been leading the project's public outreach. FNSB staff have provided project briefings at borough ordinance and budget meetings. The FHWA will host an online public meeting to present the TRRA Improvements project and the EA.

4.4 LIST OF PREPARERS

This EA was prepared by the FHWA with assistance from FSNB and DOA Fort Wainwright and technical assistance from PND Engineers, Inc. Table 4-1 identifies name, organization, and role on the project.

Table 4-1 – Preliminary List of Environmental Assessment Preparers

Name	Organization	Project Role
Brandon Stokes	FHWA-WFL Highway Division	Project Manager
Stephen Morrow	FHWA-WFL Highway Division	Environmental Specialist
Paul Kendall	PND Engineers, Inc., Anchorage, AK	Project Manager
Anna Kopitov	PND Engineers, Inc., Seattle, WA	EA Author

4.5 ENVIRONMENTAL ASSESSMENT DISTRIBUTION

The FHWA will document the distribution of electronic copies of the EA by email to interested parties identified as project stakeholders.

5 Permits and Authorizations Needed

The FHWA identified permits and authorizations that may be required for the project prior to construction as shown below in Table 5-1.

Table 5-1 – List of Permits and Approvals by Agency

Agency	Code	Permit	Authorization
FHWA	NEPA		Lead Agency
FHWA	Dept of Transportation Act		Section 4(f) Net Benefit Programmatic Evaluation completed June 2021.
USACE/ADEC	Clean Water Act	Section 401 Water Quality Certification	
	Clean Water Act Alaska Administrative Code (AAC) 18 AAC 83.015	Section 402, Section 301(a), NPDES /APDES, regulates all discharges to waters of the U.S. from construction sites and water management facilities. Excavation Dewatering General Permit Antidegradation Analysis	
	Clean Water Act	Section 404 regulates the discharge of dredged and fill material into waters of the U.S., including wetlands.	
	33 USC Section 408		Section 408 Authorization provides that USACE may grant permission for another party to alter a Civil Works project upon a determination that the alteration will not be injurious to the public interest and will not impair the usefulness of the Civil Works project.
ADNR/State Historic Preservation Office	National Historic Preservation Act		Section 106, No Historic Properties Affected. Completed in June 2021.
ADNR	AS 46.15		Temporary Water Use Authorization
	AS 38.05.127		Tanana Basin Area RMZ Easement Vacation

Agency	Code	Permit	Authorization
FNSB	FNSB 15 Building & Construction	Floodplain Permit	Title 15.04 Floodplain Management Regulations Floodway No-Rise Certification Excavation within 250-feet of Levee Centerline
ARRC		Right-of-way Temporary construction	

6 Project Commitments and Conservation Measures

This section provides a list of the commitments and conservation measures associated with the Preferred Alternative (Table 6-1). The purpose of these measures is to avoid, minimize or mitigate for potential impacts to the resources discussed in Chapter 3.

Table 6-1 – List of Project Commitments and Conservation Measures

Resources	Commitment and Conservation Measures
Design Phase	
• Land Use • Utilities	Minimize impacts to properties on South Lathrop St. north of the levee by reducing the need to convert industrial use lands to transportation uses during the final design phase.
• Social and Economic	Continue coordination and outreach with interested stakeholders using multimedia platforms (e.g., newspapers, radio, websites, and virtual meetings).
• Soils and Geology	Design erosion and sediment control measures prior to beginning construction.
• Wetlands	Reduce impacts to wetland and water resources during design to the extent practicable.
	Use steeper (1 V:2 H) road embankment slopes on wetland crossings to minimize the footprint width while providing long-term stability. The steeper slopes are anticipated to deter ORV users from leaving the roadway and causing additional impacts.
	Where possible, design of the embankment will incorporate areas previously impacted by fill placement or off-road vehicle activity.
	Design installation of culverts and/or drainage mats 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.

Resources	Commitment and Conservation Measures
	Coordinate with USACE to implement compensatory mitigation to offset unavoidable impacts to wetlands and waters of the U.S. This may include specifying the amount, type, and location of compensatory mitigation, including any out-of-kind compensation, an approved mitigation bank or in-lieu fee program, or an on-site wetland compensatory mitigation project.
Construction Phase	
All	Implement all regulatory permit mitigation requirements to avoid potential significant impacts.
• Transportation • Land Use • Recreation • Social and Economic	Communicate construction schedule, traffic, and access notifications to the public in advance using public notices, signage, and TLRA information boards.
• Transportation	Coordinate and communicate construction schedule with the DOA Fort Wainwright in advance of construction.
	Install and coordinate temporary traffic control devices to minimize the impacts to motorists.
	Use traffic safety signs and flaggers to inform motorists, bicyclists, and pedestrians to manage traffic on affected roads during construction activities.
	Install new wayfinding signage to direct travelers to the new entrance.
• Land Use	Maintain access to the TLRA, TFTA, and boat launch during construction.
• Water Resources • Water Quality • Floodplains • Wetland • Non-wetland Waters	Do not store fuel, fuel vehicles, or perform maintenance within 100 feet of water bodies and wetlands.
• Water Resources • Water Quality • Floodplains	Incorporate measures to protect the water quality.
	Reduce potential for turbid stormwater runoff from the site through use of measures such as perimeter silt fencing and fiber rolls.
	Reduce potential for soil erosion through use of methods such as temporary seeding, straw mulch, and plastic coverings.

Resources	Commitment and Conservation Measures
	Maintain water quality using methods that may include using grass buffer strips, organic mulch layers, planting soil beds, and vegetated systems such as swales and grass filter strips that are designed to convey and treat runoff.
	Stabilize and revegetate disturbed areas after work is completed.
	Leave erosion and sediment control measures in place until vegetation becomes established and covers more than 70 percent of disturbed area.
	Temporary erosion and sediment control products, when no longer required, should be promptly removed before its removal becomes too difficult, potentially damaging new vegetation.
	Minimize the contact of construction materials, equipment, and maintenance supplies with storm water.
	Maintain the integrity of the levee system by ensuring the finished grade of the levee at the road crossing to be above levee "design elevation".
• Wetlands • Fish • Wildlife • Water Resources • Water Quality • Floodplains	Treat PCP poles offsite and not near waterways or wetlands.
	No cutting, drilling, sanding, or other measures will occur onsite that will cause treated wood sawdust or coating to sluff off into wetlands.
	PCP-treated poles will not be sited in wetlands or waters outside of the new project embankments.
• Wetlands • Vegetation • Fish • Wildlife	Delineate work and staging areas, and clearly mark clearance and fill boundaries to avoid accidental impacts to wetlands, waters, wildlife, and other habitats from inadvertent access, equipment operation, and clearing of and fill material placement.
	Install 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.
	Clearing will be selective and the minimum width necessary for project construction and safer operation.
• Wetlands • Vegetation • Soils	Retain native weed-free topsoil for use on site (e.g., restoring disturbed habitats and maintaining native seed stock). Contractor will store native weed-free topsoil at an approved site to be determined prior to clearing and grading.

Resources	Commitment and Conservation Measures
• Wetlands • Vegetation • Soils • Visual Quality	Reseed or replant disturbed areas with local native vegetation to the extent practicable.
• Wetlands	Contractor will not clear vegetation or operate equipment outside the designated clearing zone.
	Contractor will not place fill material or debris from clearing or construction outside of the designated construction zone.
• Wetlands • Vegetation	When clearing areas where revegetation is desired, cut vegetation flush with the ground to allow passive revegetation of disturbed areas.
• Vegetation • Wildlife • Special Status Species • MBTA • Bald Eagles	The Contractor will not use plastic monofilament netting (erosion control matting) or similar material as part of erosion control activities. Acceptable materials for erosion and sediment control include geomembranes, coconut coir matting, tackified hydroseeding compounds, and rice straw wattles. Degradable, photodegradable, UV-degradable, oxo-degradable, or oxo-biodegradable plastic netting (including polypropylene, nylon, polyethylene, polyester, poly-jute, etc.) will be avoided during construction. For more information, please refer to https://www.coastal.ca.gov/nps/Wildlife-Friendly_Products.pdf. If netting is used, it will have a loose-weave, wildlife-safe design with movable joints between the horizontal and vertical twines, allowing the twines to move independently and thus reducing the potential for wildlife entanglement. The Contractor will avoid the use of silt fences reinforced with metal or plastic mesh, which can also cause an entanglement hazard to wildlife.
• Vegetation • Wildlife • Special Status Species	*Nesting Migratory Birds.* To avoid impacts to nesting migratory birds, the following measures will be implemented by the Contractor. To avoid disturbance impacts to nesting migratory birds and their nests, the Contractor will implement all guidelines including but not limited to, avoiding tree removal, vegetation clearing, and grading during breeding bird season to the maximum extent practicable. If activities cannot be avoided during the breeding season, the Contractor will implement pre-construction nest surveys no earlier than 3 days before clearing in accordance with Land Clearing Timing Guidance for Alaska (USFWS and ADF&G 2009). Nest surveys will be conducted by qualified biologists within the project footprint and within a 500 feet buffer of the construction limits of disturbance.

Resources	Commitment and Conservation Measures
	In the event that active bird nests are observed during the pre-construction surveys, the biologist will delineate no-work buffers. No-work buffers will be set at a distance of 75 feet from the nest, unless a larger buffer is required (e.g., eagles). A qualified biologist may determine that a smaller no-work buffer is appropriate based on existing nest buffer guidance or USFWS approval. No-work buffers will be maintained until nestlings have fledged and are no longer reliant on the nest or parental care for survival as determined by the biologist, or the biologist determines that the nest has been abandoned. In circumstances where it is not feasible to maintain the standard no-work buffer, the no-work buffer may be reduced by the biologist, provided that the biologist monitors the active nest during the construction activity to ensure that the nesting birds do not become agitated. If visual screens and sound barriers between nest and work areas are present, the biologist may reduce the no-work buffer as appropriate. No-work buffers will be delineated using appropriate methods/materials (e.g., exclusionary fencing). If nesting migratory birds are found incidentally during construction, the Contractor will cease work and contact the biologist to determine if a nest buffer is required and to establish a no-work buffer. In project areas where work has ceased for a period of 10 days or more, the biologist will repeat nesting bird surveys limited to areas where work has ceased plus a 50-foot buffer

Resources	Commitment and Conservation Measures
• Vegetation • Wildlife • Special Status Species	*Bald Eagles.* To avoid disturbance impacts to bald eagles and their nests, the Contractor will implement National Bald Eagle Management Guidelines (2007) including but not limited to the measures listed below. Prior to construction activities, the Contractor will employ qualified biologist(s) to conduct a bald eagle nest survey within the construction limits plus a 1-mile buffer from the construction limits (including clearing, staging, and fill areas using USFWS approved eagle nest survey methodology). The one-mile buffer will be limited to areas north of the Tanana River. Surveys will be conducted from the ground by vehicle or by foot. The Contractor will provide the FHWA with a report of the survey identifying nest locations, if any. If a nest is located within the survey area, the FHWA or its designee will contact the USFWS for further guidance using the contact information below. To avoid disturbing nesting bald eagles, the Contractor will employ qualified biologists to monitor eagle nests and implement the following USFWS guidance, Determining Whether Construction or Development Activities May Disturb Nesting Eagles, available at the USFWS website: Guidance on How to Determine the Likelihood of Disturbing Nesting Bald Eagles | Alaska Region (fws.gov). The Contractor will implement the following measures to minimize visual and auditory impacts associated with human activities near nest sites. 1. Maintain a buffer of at least 660 feet (200 meters) between project activities and the nest (including active and alternate nests). If a similar activity is closer than 660 feet, then a distance buffer as close to the nest as the existing tolerated activity will be maintained. 2. If an activity is performed closer than 660 feet due to a similar activity existing closer than 660 feet, then all clearing, external construction, and landscaping activities within 660 feet of the nest will be restricted to outside of the nesting season (in Alaska, the nesting season is generally from March 1-August 31). 3. Maintain established landscape buffers that screen the activity from the nest. If these measures cannot be implemented and for additional guidance, the FHWA or its designee will contact the USFWS Alaska Migratory Bird Permit Office Fairbanks Office, (907) 271-2888 or by email at AK_fisheries@fws.gov and douglass_cooper@fws.gov, and bob_henzey@fws.gov.

Resources	Commitment and Conservation Measures
• Wildlife	*Migratory Birds, Strigiformes, and Raptors.* To prevent collision and electrocution of migratory birds and raptors, APLIC guidelines to prevent collision and electrocution with power line infrastructure will be implemented. This includes but is not limited to the installation of flight diverters, perch guards, and wire covers on power line infrastructure.
• Vegetation	*Invasive Species.* The Contractor will remove dirt, plant, and foreign material from vehicles and equipment before entry into Tanana Lakes Recreation Area (TLRA) to prevent introduction of noxious weeds and non-native plant species into the work site and maintain cleaning and inspection records. Haul vehicles also must be cleaned before initial entry; subsequent entries will not require cleaning unless requested. The Contractor must also notify the FHWA Contract Officer a minimum of 48 hours before entry to allow for equipment inspection. To avoid introduction and transportation of invasive species, the Contractor will designate a member of contractor's staff to complete the invasive species management certification available at Guidelines for Preventing the Spread of Aquatic Invasive Species available at https://www.fws.gov/alaska/sites/default/files/2021-01/Aquatic%20Invasive%20Species%20Prevention%20Guidelines.pdf. The certified invasive species team member will be responsible for invasive species management during construction. The Contractor will prevent introduction and spread of weeds by using appropriate measures during movement of sand, gravel, borrow, and fill material as well as sourcing weed-free materials.
	Contractor will retain native weed free topsoil for use on site (e.g., restoring disturbed habitats and maintaining native seed stock). Contractor will store native weed free topsoil at an approved site to be determined prior to clearing and grading.
	The Contractor will implement measures to keep all equipment working in the project area free of weed seed.
	Clear minimum width necessary for project construction and safer operation. Clearing will be selective and limited to upland trees with diameters 4 inches or less to the extent practicable.
• Soils and Geology	Maintain good housekeeping and implement all BMPs at construction sites (e.g., keep construction areas free of trash, implement SWPPP).
	Implement erosion and sediment control measures prior to beginning construction.

Resources	Commitment and Conservation Measures
	Maintain erosion and sediment control measures throughout the entire construction phase, regardless of season, until vegetation is established. These could include slope protection, erosion, surface water drainage, sediment containment, covering stockpiled materials and construction hauling techniques.
	The project will reuse existing road base material to the extent practicable.
	Store materials (e.g., soil, sand, gravel, vegetation, etc.) at an approved site to be determined prior to construction activities. This includes all materials used for construction and materials to be disposed (e.g., cleared vegetation) at an approved disposal site.
• Cultural Resources	Should unidentified archaeological resources or human remains be discovered during the project, work must be interrupted until the resources have been evaluated in terms of the National Register of Historic Places eligibility criteria (36 CFR 60.4) in consultation with AK SHPO, and pending further recommendation from the FHWA in consultation with the Alaska OHA. Please note that some sites can be deeply buried and that fossils are considered cultural resources subject to the Alaska Historic Preservation Act.
• Air Quality • Noise • Energy	All equipment would have sound control devices no less effective than those provided on the original equipment. All equipment would have muffled exhaust.
	To minimize temporary higher noise levels during construction, all construction vehicles and equipment would be required to comply with FHWA's standard noise mitigation measures.
	All equipment would comply with pertinent noise standards of the EPA.
	Use of plant-based, organic tackifiers or water to control dust, during construction, in the clearing of land and road grading and on unpaved roads, material stockpiles, and other surfaces which can create airborne dusts.
	If open burning is chosen as the preferred method of disposal of organic debris during the project, the Contractor must use "reasonable procedures to minimize adverse environmental effects and limit the amount of smoke generated," and acquire any applicable permits. Contractor will review the complete description of the open burn information including policies can be found at: http://dec.alaska.gov/air/air-permit/open-burn-info/

Resources	Commitment and Conservation Measures
	All construction activities will follow all reasonable precautions in accordance to 18 AAC 50.045(d) to prevent particulate matter from being emitted into the ambient air. A dust control plan will be in place during the project to mitigate dust issues.
	Fully or partially enclose material stockpiles in cases where application of tackifiers is not sufficient to prevent PM from becoming airborne.
	Cover open-bodied trucks transporting materials that could become airborne when in motion.
	Promptly remove materials from paved streets that have the potential to become airborne.
	Operate all equipment in accordance with manufacturer's recommendations to minimize emissions.
	Shut down idling heavy equipment when not in use.
• Hazardous Materials	The contractor will 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 contracting officer contacted immediately.
	All contaminated material will be handled and disposed of in accordance with ADEC regulations.

7 References

ABR, Inc. 2020a. Wetland and Stream Delineation for the Tanana River Recreation Access Improvements Project, Fairbanks, Alaska, 2020: AK FNSB TANANA(1). Prepared for PND Engineers Inc., on behalf of Federal Highway Administration Western Federal Lands Highway Division.

ABR, Inc. 2020b. Wetland Impacts and Mitigation Report for the Tanana River Recreation Access Improvements Project, Fairbanks, Alaska, 2020: AK FNSB TANANA(1). Prepared for PND Engineers Inc., on behalf of Federal Highway Administration Western Federal Lands Highway Division.

ABR, Inc. 2020c. Wetland and Stream Delineation for the Tanana River Recreation Access Improvements Project, Fairbanks, Alaska, 2020: AK FNSB TANANA(1), revised. Prepared for PND Engineers Inc., on behalf of Federal Highway Administration Western Federal Lands Highway Division.

ABR, Inc. 2020d. Wetland Impacts and Mitigation Report for the Tanana River Recreation Access Improvements Project, Fairbanks, Alaska, 2020: AK FNSB TANANA(1). Prepared for PND Engineers Inc., on behalf of Federal Highway Administration Western Federal Lands Highway Division.

ABR, Inc. 2020e. Biological Resources Survey Report for the Proposed Tanana Lakes Recreation Area Access Improvements: AK FNSB Tanana(1). Prepared for the PND Engineers, Inc on behalf of Federal Highway Administration Western Federal Lands Highway Division.

ABR, Inc. 2020f. Biological Resources Impacts Report for the Proposed Tanana Lakes Recreation Area Access Improvements: AK FNSB Tanana(1). Prepared for the PND Engineers, Inc on behalf of Federal Highway Administration Western Federal Lands Highway Division.

ADEC. 2019. State Air Quality Control Plan. Serious State Implementation Plan. Adopted November 19, 2019. Accessed online on August 5, 2020 at https://dec.alaska.gov/air/anpms/communities/fbks-pm2-5-serious-sip/

ADEC. 2018. Alaska's List of Impaired or 303(D) Listed Waterbodies. Accessed online on August 6, 2020 at https://dec.alaska.gov/water/water-quality/integrated-report.

ADF&G. 2015. Alaska wildlife action plan. Juneau, AK. 228 p.

ADF&G. 2021. Anadromous Waters Catalog (AWC). Accessed online in January 2021 at https://www.adfg.alaska.gov/sf/SARR/AWC/index.cfm?ADFG=maps.displayViewer.

Alaska Department of Transportation and Public Facilities (AKDOT&PF). 2016. Let's Keep Moving 2036: Policy Plan.

Alaska Federal Lands Access Program (AFLAP). 2016. Tanana River Recreation Access Improvements. Phase I. Submitted by Fairbanks North Star Borough.

AFLAP. 2019. Tanana River Recreation Access Improvements. Phase II. Submitted by Fairbanks North Star Borough.

Applied Development Economics, Inc. 2016. Fairbanks North Star Borough Comprehensive Economic Development Strategy.

Fairbanks North Star Borough (FNSB). Department of Parks & Recreation. 2007. Tanana Lakes Recreation Area (TLRA) Master Plan. Prepared by USKH, Inc.

FNSB. 2005. Fairbanks North Star Borough Regional Comprehensive Plan. Adopted by FNSB Borough Assembly September 13, 2005 (Ordinance No. 2005-56). Accessed on July 24, 2020 at http://fnsb.us/cp/Documents/CompPlan_2005-0913_FullyAdoptedDocument.pdf

FNSB. 2020. Borough Code as accessed on July 24 2020 at https://gisportal.fnsb.us/enterprise/apps/webappviewer/index.html?id=8b49f3ccf21a4c76a46023d6b073d1fa

Federal Highway Administration (FHWA). 2020. Biological Resources Survey Report for the Proposed Tanana Lakes Recreation Area Access Improvements: AK FNSB Tanana (1). Prepared by ABR, Inc Environmental Research and Services. Fairbanks, Alaska.

Jorgenson, M.T., Racine, C.H., Walters, J.C., and Osterkamp, T.E., 2001, Widespread and rapid permafrost degradation and associated ecological changes caused by a warming climate on the Tanana Flats, Central Alaska: Climatic Change, v. 48, p. 551-579.

MacDonald, S. O., and J. A. Cook. 2009. Recent mammals of Alaska. University of Alaska Press, Fairbanks, AK. 387 p.

Moran, E.H., 2007, Water quality in the Tanana River basin, Alaska, water years 2004–06: U.S. Geological Survey Open-File Report 2007–1390, 6 p

Péwé, Troy. 1993. Special Report 15 Geologic Hazards of the Fairbanks Area, Alaska. First Edition 1982. Reprinted 1993. Alaska Department of Natural Resources (ADNR). Division of Geological & Geophysical Surveys. Fairbanks, Alaska.

Shannon and Wilson. 2020. Draft Phase I Environmental Site Assessment. Tanana River Recreation Access. AK FNSB Tanana (1). Fairbanks, Alaska. Shannon and Wilson No. 105375=001.

Stephen R. Braund & Associates. 2020. Cultural Resources Literature Review and Field Survey Report for Tanana River Recreation Access Improvements Project WFLHD Project Number: AK FNSB TANANA (1) Prepared for U.S. Department of Transportation, Federal Highway Administration Western Federal Lands Highway Division and PND, Inc.

University of Alaska Museum of the North (UAMN). 2020. Mammals of Alaska [website]. Available at: https://www.uaf.edu/museum/collections/mammal/current-mammal-species-of/. Accessed 20 July 2020.

United States (U.S.) Department of Agriculture Natural Resources Conservation Service. 2020. Web Soil Survey. Accessed on August 5, 2020 at https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

U.S. Army Garrison Fort Wainwright. 2013. Integrated Natural Resources Management Plan.

U.S. Census. 2019. accessed online at https://www.census.gov/quickfacts/fairbanksnorthstarboroughalaska on 7/31/2020.

U.S. Fish and Wildlife Service (USFWS). 2021. Information for Planning and Consultation (IPaC). Accessed online at https://ecos.fws.gov/ipac/ on May 20, 2021.

_____. 2009. Land Clearance Timing Guidance for Alaska *Plan Ahead to Protect Nesting Birds*.

_____. 2008. Birds of conservation concern 2008. U.S. Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Movements, Arlington, VA. 85 pp.

_____. 2007. National Bald Eagle Management Guidelines. Accessed online at https://www.fws.gov/pacific/ecoservices/documents/NationalBaldEagleManagementGuidelines.pdf on March 15, 2021.

U.S. Geological Survey (USGS). 2020. Water Quality in the Tanana River Basin, Alaska, Water Years 2004-2006. Accessed online on 8/6/2020 at https://water.usgs.gov/wsc/cat/19040508.html.

Verbrugge, L.A., Kahn, L. & Morton, J.M. Pentachlorophenol, polychlorinated dibenzo-p-dioxins and polychlorinated dibenzo furans in surface soil surrounding pentachlorophenol-treated utility poles on the Kenai National Wildlife Refuge, Alaska USA. Environ Sci Pollut Res 25, 19187–19195 (2018). https://doi.org/10.1007/s11356-018-2269-7

Viereck, L.A. Dyrness, C.T. Batten, A.R. Wenzlick, K.J. 1992. The Alaska vegetation classification. Gen. Tech. Rep. PNW-GTR-286. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 278 p.

Appendix A – 2007 Tanana Lakes Recreation Area Master Plan

Appendix B – Wetlands Technical Reports

Appendix C – Biological Resources Study Reports and ESA Species Report

Appendix D – Transportation Conformity Meeting Summary

Appendix E – Section 4(f) Net Benefit Programmatic Evaluation

Appendix F – Tribal Coordination Letters