



FINAL ENVIRONMENTAL ASSESSMENT

South Airpark Cargo Improvements

August 2023

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Transportation
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ACRONYMS & ABBREVIATIONS

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
ADN	Anchorage Daily News
AEDC	Anchorage Economic Development Corporation
AFSC	Anchorage Fueling and Service Company
AHRS	Alaska Heritage Resource Survey
ALP	Airport Layout Plan
ANC	Ted Stevens Anchorage International Airport
APE	Area of Potential Effect
bgs	below ground surface
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
CY	Cubic Yards
dBa	weighted decibels
dBs	decibels
DNL	Day-Night Average Sound Level
DOT&PF	State of Alaska Department of Transportation and Public Facilities
DRO	diesel range organics
EA	Environmental Assessment
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
HDD	Horizontal Directional Drilling
kg	kilograms
mg	milligrams
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
PAHs	polyaromatic hydrocarbons
PFAS	per- and -polyfluoroalkyl substances

PFCs	perfluorinated compounds
PFOs	perfluorooctane sulfonic acid
RCRA	Resource Conservation and Recovery Act
RRO	residential range organics
SHPO	State Historic Preservation Office
SLCC	Sand Lake Community Council
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USGS	U.S. Geological Survey

EXECUTIVE SUMMARY

NorthLink Aviation, under lease with Ted Stevens Anchorage International Airport (ANC), proposes to construct cargo facilities at the South Airpark of ANC near Raspberry Road in Anchorage, Alaska. The proposed development features parking spaces for air cargo freighters, taxiway connections to adjacent taxiways, and a cargo terminal facility.

Although there is no federal funding for the proposed project, some improvements to the South Airpark portion of ANC described above would require Federal Aviation Administration (FAA) Alaskan Airports Division Airport Layout Plan (ALP) approval (a federal action under the National Environmental Policy Act [NEPA]), and therefore an Environmental Assessment (EA) is being prepared.

A review was undertaken of the existing environmental conditions and the EA describes the resources that may be affected by the proposed alternatives, including the No-Action alternative. This EA also discusses impacts to the existing environment resulting from the proposed alternatives. Resources potentially affected by the proposed action included U.S. Department of Transportation Act Section 4(f), Hazardous Materials, Cultural Resources, Noise, Visual Resources, Wetlands, and Groundwater. Analyses conducted to evaluate project impacts to protected resources show that no environmental resources will incur significant impacts as outlined in FAA by significance thresholds in FAA Order 1050.1F Section 4-3.3.

Although no significant impacts will occur to environmental resources, NorthLink Aviation proposes a design enhancement at the request of the public to further limit project impacts. NorthLink Aviation proposes to establish an approximate 700-foot setback from Raspberry Road to the proposed development and construct an earth berm approximately 25-feet in height. The earth berm will further reduce impacts to visual resources and noise.

Scoping for the project was completed from February 16, 2022 to March 31, 2022. Comments received from public and agencies were incorporated into the Draft EA. The Draft EA was published for public and agency review on May 27, 2022 and a 30-day comment period was completed June 25, 2022. The Final EA and a draft Finding of No Significant Impact (FONSI) / Record of Decision (ROD) were published for public and agency review on April 28, 2023 and the comment period concluded May 30, 2023. A public meeting was held on May 30, 2023. Comments received from the public and agencies were incorporated into the Final EA and FONSI/ROD. Changes to the Final EA (this document) from the Final EA published April 28, 2023 include updates to the Noise Impact Study found in Appendix D. The updated Noise Impact Study resulted in updates to Sections 3.2 (Section 4(f)) and 3.5 (Noise and Noise Compatible Land Use) in the Final EA.

FAA finds the project will not significantly impact environmental resources in accordance with FAA Order 1050.1F and approves a Finding of No Significant Impact.

1.0 PROPOSED ACTION

NorthLink Aviation, under lease with Ted Stevens Anchorage International Airport (ANC), proposes to construct cargo facilities at the South Airpark of ANC near Raspberry Road in Anchorage, Alaska (see Figure 1). The proposed development, referred to as the South Airpark Cargo Improvements project, includes parking spaces for air cargo freighters, taxilane connections to adjacent taxiways, and a cargo terminal facility.

The proposed project is a private development funded by Tiger Infrastructure Partners, including a small percentage co-investment from the Alaska Future Fund. Tiger Infrastructure Partners is a middle-market private equity firm that invests in growing infrastructure platforms. The Alaska Future Fund is managed by Barings LLC which serves as an external fund manager to the Alaska Permanent Fund Corporation's Alaska Investment Program. The Alaska Future Fund seeks to make investments that will support core sectors of Alaska's economy, foster next generation private market opportunities in the state, and generate strong market-based investment returns .

The proposed South Airpark Cargo Improvement project involves construction of infrastructure necessary to support cargo operations that will occur at the new cargo terminal facility, the Alaska Department of Transportation & Public Facilities (DOT&PF) (airport sponsor) requested approval from the Federal Aviation Administration (FAA) to update its Airport Layout Plan (ALP). FAA approval, consistent with provisions under the Airport and Airway Improvement Act of 1982 (49 U.S.C 47101) and Section 163 of the 2018 FAA Reauthorization Act is a federal action requiring compliance with the National Environmental Policy Act (NEPA). Therefore, this EA was prepared in accordance with NEPA (42 U.S.C. §§ 4321–4374), the Council of Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] 1500 et seq.), and FAA policy and procedures, FAA Order 1050.1F (2015) and Order 5050.4B (2006).

DOT&PF is responsible for appropriate airport planning¹, which includes proposed updates to an ALP. ALPs are drawings used to depict current and future airport facilities. The ALP serves as a record of present and future aeronautical requirements and is a blueprint for airport development by which the airport authority and FAA can ensure that all proposed development is consistent with FAA airport design standards and safety requirements as well as airport and community land use plans.²

NorthLink Aviation and DOT&PF anticipate the proposed construction activities associated with the South Airpark Cargo Improvement project to begin in Summer of 2023.

The proposed project is located in Sections 4, Township 12 North, Range 4 West, Seward Meridian at latitude 61.16218 degrees north and longitude 150.00101 degrees west (U.S. Geological Survey [USGS] Quadrangle Anchorage and Tyonek) (Figure 1).

¹ Airport planning is integral and necessary to ensure efficient development at civil airports that is consistent with local, state, and federal requirements, guidelines and goals. A key objective of airport planning is to assure the effective use of airport resources to satisfy aviation demand in a financially feasible manner.

² An up-to-date FAA-approved ALP ensures the safety, utility, and efficiency of the Airport and is required when an Airport is seeking financial assistance from the FAA.

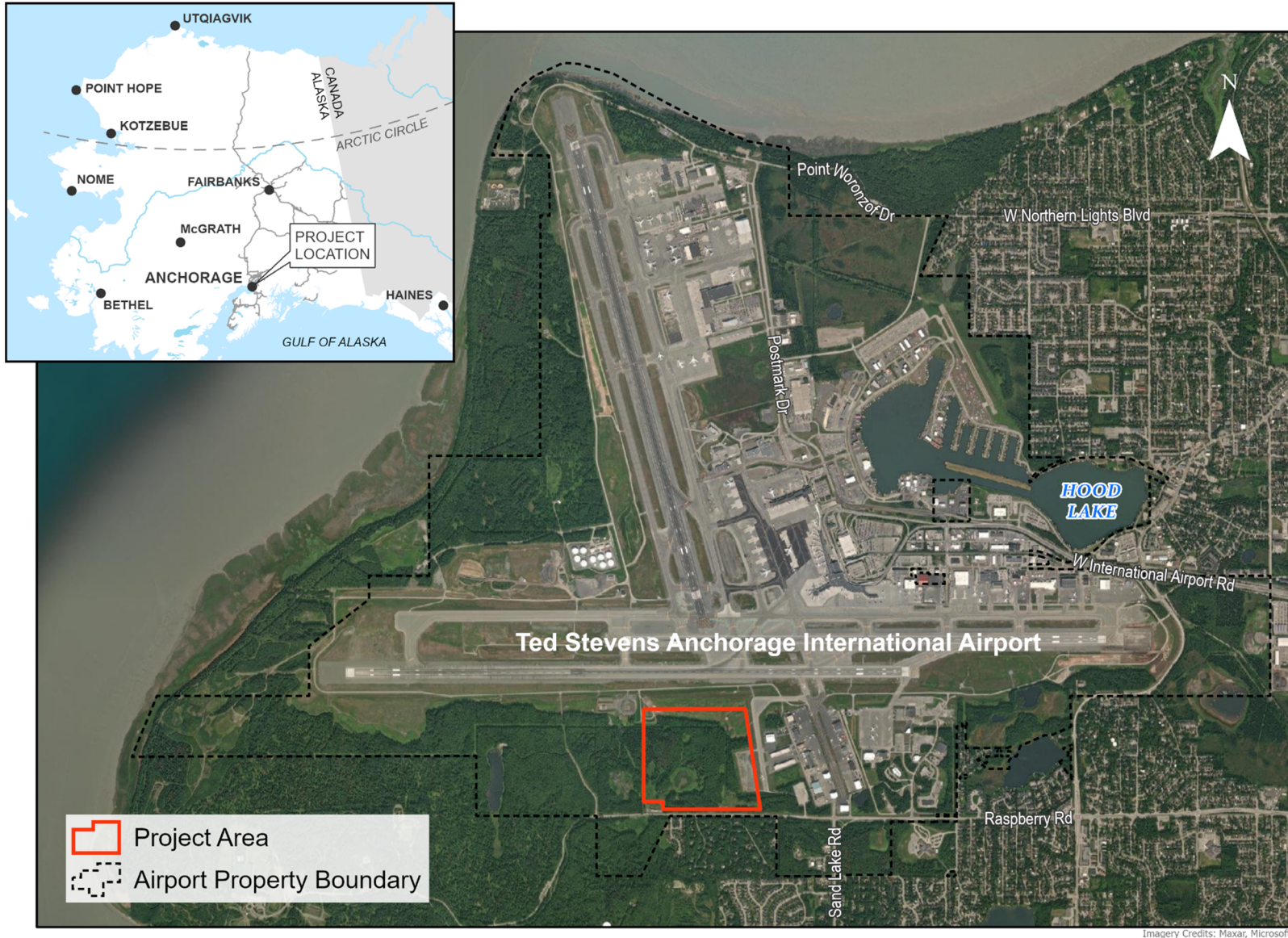


Figure 1: Location and Vicinity

This EA has been prepared in accordance with NEPA (42 U.S.C. 4321), the Council of Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] 1500 et seq.), and requirements and guidance specific to FAA found in FAA Order 1050.1F (2015) and Order 5050.4B (2006).

Existing Conditions

Ted Stevens Anchorage International Airport (ANC) is located in Alaska's most populous city, Anchorage. Within Anchorage, ANC occupies the most western point of land, adjacent to Cook Inlet. The State of Alaska Department of Transportation and Facilities (DOT&PF) owns and operates ANC. The 4,210-acre ANC complex (excluding Lake Hood) features three runways, one helipad, 19 taxiways, and two terminals. Approximately 45 air carriers operate out of ANC, including 18 domestic and 27 international with an average of 793 flights per day as of 2019 (DOT&PF 2022). In addition to passenger service, ANC is also a major cargo hub. As of December 2022, ANC administers 14 remote hardstands that can accommodate wide-body aircraft, primarily used for commercial cargo aircraft. ANC also has 9 wide-body passenger gates (N1-8, B3) at the two passenger terminals that are used on a secondary priority or contingency basis for cargo aircraft parking. In addition, a private terminal owned by UPS has six hardstands that can accommodate freighters. As of 2021, ANC ranked as the fourth busiest airport in the world for cargo traffic. The Anchorage Economic Development Corporation (AEDC) states on their website that the airport is an important contributor to Alaska's economy, and because ANC is 9.5 hours from 90 percent of the industrialized world, it is a critical link for the international movement of goods (AEDC 2022).

The South Airpark of ANC is located along the southern extent of ANC property along Raspberry Road and according to the current ALP, includes airport land south of the east/west runways. Much of the South Airpark is already developed for general aviation infrastructure including hangars, aprons, and taxilanes. A portion of the South Airpark west of Taxilane Zulu is leased to NorthLink Aviation (formerly IC Alaska Airport LLC) by ANC (under State Lease ADA-32351) through October 19, 2076. The current conditions of the NorthLink Lease Lot include 121 acres of closed mixed forest and previously disturbed ground (Figure 2). A dense forest containing deciduous and conifer trees primarily occupies the central and eastern portion of the proposed project area. A gravel pad is located on the east side of the lease lot which was previously used for an asphalt plant; presently the area is flat and covered in gravel. A snow dump is also located within the lease boundary near the northeast corner; the saturation is evident in ground disturbance at the location. West of the lease lot is a lined fire pit no longer used for firefighter training and an active firing range for target practice for law enforcement. East of the lease lot are current South Airpark facilities discussed above including hangars, aprons, and taxilanes. North of the lease lot are the east/west ANC runways (7R-25L and 7L-25R), and a proposed Taxiway Zulu extension. South of the lease lot are Raspberry Road and a residential area.



Figure 2: Existing Conditions

1.1 Purpose and Need

The identification of the purpose and need for a proposed project is the primary basis for developing the range of reasonable alternatives. The proposed project is a privately financed venture on the NorthLink lease lot located in South Air Park at the Ted Stevens Anchorage International Airport. The project will develop facilities at ANC to support commercial cargo operations. Federal involvement would be to approve a change to the Airport Layout Plan because of certain proposed improvements. (Section 1.2) (Federal Action requested).

1.1.1 Purpose of the Proposed Action

The purpose of the proposed project is to develop infrastructure to efficiently support air cargo operations at ANC at the South Airpark lot leased to NorthLink Aviation under State lease ADA-32351. The purpose and need of the Federal Aviation Administration's (FAA) action is to evaluate the Alaska Department of Transportation & Public Facilities (DOT&PF) request to update their ALP associated with the proposed South Airpark Cargo Improvements project and meet its statutory obligations under 49 U.S.C. 47101 and Section 163 of the 2018 FAA Reauthorization Act.

1.1.2 Need for the Proposed Action

Unlike airports in other US cities of comparable population size, most activity at ANC revolves around the provision of services to the international air cargo industry. ANC now ranks number four in the world for total weight of all cargo moving through an airport and has been in the top 10 globally for at least 20 years.

Global Efficiency Need: The demand for Transpacific air freight has increased at a much faster rate than ocean transport capacity, and shippers are increasingly moving into air freight to meet supply chain needs. According to 2022 data from the Airports Council International (Airports Council International, 2022), the aggregate tonnage among the world's top 10 busiest cargo airports increased 15 percent year-over-year, and ANC 2021 cargo was up 12.6 percent versus 2020 and nearly 30 percent versus 2019 to more than 3.5 million tons of cargo. The AEDC is projecting eight percent growth through 2023, and annual tonnage increases in the two percent range each year thereafter (AEDC 2020). As noted above, ANC's unique location makes it likely that the airport will continue to be an important hub for air cargo operations for years to come.

State of Alaska Economic Need: Sustainable economic growth is a goal of the State of Alaska. Introducing new cargo facilities, such as hardstands and warehouses, will not only meet the immediate demand described above, but will also support and encourage projected long-term growth by supporting ANC's transition from being a fuel stop and crew-change site, to an all-purpose site where cargo carriers can efficiently download and upload cargo, including temporarily storing cargo in a warehouse. The improvement in cargo facilities is expected to make ANC more competitive and make Alaska a more desirable world-wide cargo hub. Additional cargo facilities would create long-term economic growth in Alaska by creating permanent job opportunities. ANC presently supplies one in seven jobs in Anchorage and generates \$1.84 billion in economic benefit (Anchorage Economic Development Corporation, 2023; Ted Stevens Anchorage International Airport, 2022).

Deficiencies: As Transpacific air cargo volumes have grown, ANC has become a leading air cargo airport, creating a need for additional infrastructure to park and service planes and move cargo. Planes transiting ANC need abundant hardstands to park that have access to hydrant fueling and ground service providers. As stated above, the cargo industry is a growing sector of ANC and airport cargo infrastructure is now beyond capacity during peak times, with anticipated decreases in capacity on the horizon. As of December 2022, ANC administers 14 remote hardstands that can accommodate wide-body aircraft, primarily used for commercial cargo aircraft. ANC also has nine wide-body passenger gates (N1-8, B3) at the two passenger terminals that are used on a secondary priority or contingency basis for cargo aircraft parking. In addition, a private terminal owned by UPS has six hardstands that can accommodate freighters. The hardstand infrastructure is forecast to decrease by up to 14 available hardstands due to expected expansions (UPS hardstands no longer being available for third party lease) and the growth of international passenger traffic (which would remove ANC's North Passenger Terminal as an option for cargo freighter parking). ANC does not have enough cargo facilities to meet either expected or desired growth to fulfill the Global Efficiency need or the State of Alaska Economic growth need.

1.2 Federal Action Requested

The Federal Action requested of the FAA by the Sponsor is to approve ALP amendments for apron and taxiways to provide connections required for NorthLink's cargo development leasehold. There are no proposed modifications to FAA Design Standards included in this project.

2.0 ALTERNATIVES

This chapter both describes the alternatives and compares the alternatives in terms of their environmental impacts and their achievement of the objectives described above in the purpose and need.

The nature of the proposed action determines the range of reasonable alternatives. (FAA Order 1050.1F at 6-2.1.) There is “no requirement for a specific number of alternatives or a specific range of alternatives to be include in an EA.” (FAA Order 1050.1F at 6-2.1.)

What is proposed is a privately funded development on a particular lease lot primarily to accommodate cargo operations. NorthLink does not have the present ability to develop a different area on the Ted Stevens Anchorage International Airport. (See Section 2.3, Alternatives Development and Comparison.)

The alternatives analysis also considers that the portion of South Airpark leased to NorthLink has been previously designated for development in the ANC 2014 Master Plan Update (Ted Stevens Anchorage International Airport, 2014). Therefore development of this portion of South Airpark has been planned for long-term airport growth. The NorthLink lease lot, in particular, allowed for the “[d]evelopment, construction, operation, and maintenance of an air cargo storage and transfer facility.” (ANC Lease ADA-32351). Surrounding areas have been utilized for general aviation infrastructure. (Section 1, Existing Conditions.)

As discussed in more detail below, meanwhile, testing on site and off site has not yielded information to suggest that the proposed action will significant affect the quality of the human environmental (Section 2.3.2 and Table 2.)

2.1 No-Action

Under the No-Action alternative, the South Airpark Cargo Improvements project would not occur. The No-Action alternative would not meet the project’s purpose and need.

ANC would remain over-capacity for cargo resources and the cargo infrastructure need would remain unmet. Furthermore, inefficiencies may increase in the future due to the forecasted increase in cargo operations at ANC, or demand for ANC as a cargo hub may diminish due to the lack of cargo infrastructure. The lease for development between ANC and NorthLink Aviation would be broken under the No-Action alternative due to the requirement in NorthLink Aviation’s lease that it develop the property and commence commercial operations no later than October 25, 2025.

Under the No-Action alternative, it is also reasonably foreseeable that the NorthLink Lease Lot will be developed otherwise for similar aeronautical purposes. FAA Order 5190.6B (Change 1, Nov. 2021) limits ANC’s ability to allow nonaeronautical uses on land designated for aeronautical purposes, such as the NorthLink Lease Lot.

2.2 Proposed Action (Preferred Alternative)

The Proposed Action is the preferred alternative because it is expected to meet the project purpose and needs. The Proposed Action is an alternative which will develop the NorthLink Lease Lot to accommodate the growing need for cargo infrastructure at ANC. The Proposed

Action is anticipated to meet the project purpose and needs by meeting the ANC demand for additional cargo aircraft hardstands.

The proposed project would include the following components (Figure 3):

- New aircraft parking apron
- Connector taxiway(s) to Taxiway Romeo and future Taxiway Zulu extension
- 15 Hardstands
- Blast fence(s)
- Cargo terminal
- Fueling and glycol distribution/recovery facilities
- Ground service equipment/unit load device facility
- Ground service equipment and vehicular parking areas
- Road connection to South Airpark Place
- Retention basin and/or snow storage area
- New security and perimeter fencing
- Earth berm

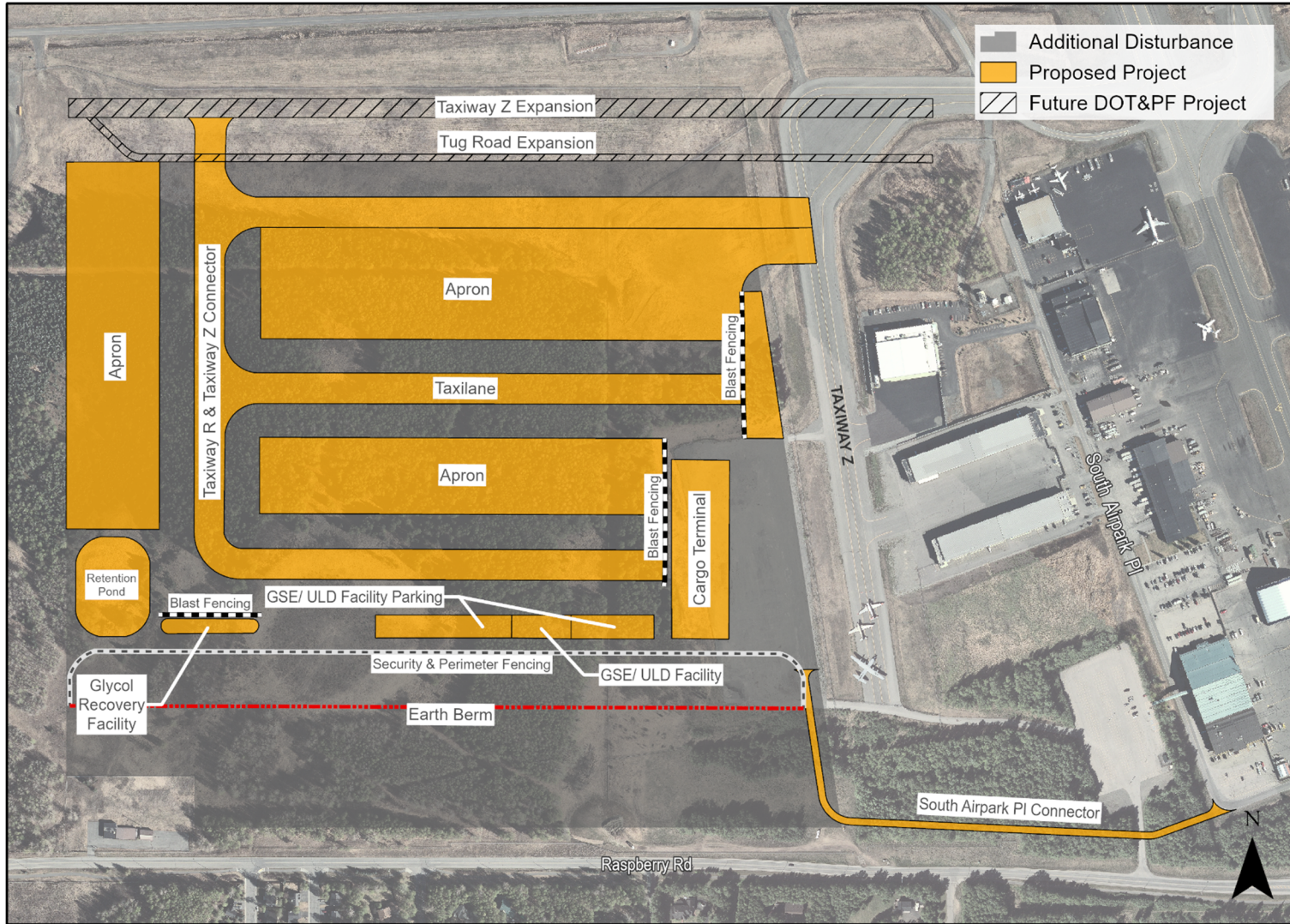


Figure 3: Proposed Action

The new aircraft parking apron will include an 80-acre paved surface with 15 hardstands equipped with in-ground fuel hydrants (supplied by transportation pipelines) and in-ground power connections. Fuel transportation pipelines will be fed by Anchorage Fueling and Service Company (AFSC) fuel lines from their bulk fuel farm located in west airpark. The AFSC fuel lines are currently in development and are designed to provide fueling options to support all South Airpark aviation infrastructure. Taxilanes connect the aircraft parking apron to the north/south Taxiway Zulu and the proposed future east/west Taxiway Zulu expansion. A 90,000 square-foot warehouse and parking lot would be located in the southeast corner of the lease lot and would provide office facilities and serve as a terminal for cargo storage. The ground service equipment and unit load device facility (and associated outdoor parking) would be located along the southern portion of the paved surface, in addition to storage for diesel fuel. The project will include a first-in-Alaska glycol recovery and recycling system in a structure directly adjacent/connected to the ground service equipment facility. The glycol recycling facility will include indoor storage of glycol and water used for deicing aircraft, as well as glycol concentrators for recycling. A 25-foot-tall earth berm will be constructed and topped with approximately 15-foot-tall wooded vegetation on the southern edge of the proposed development. Blast fences would be placed strategically to redirect the exhaust from jet engines. A retention basin will provide a location for stormwater to be collected from the new impervious surface and settle potential contaminants. The retention basin is drainage infrastructure that maintains a pool of water long term. Stormwater will otherwise drain to the ANC stormwater system. New security measures and perimeter fencing will be placed in accordance with ANC standards. An access road would be constructed to route vehicular traffic from South Airpark Place to the NorthLink Lease Lot. Additional work may include vegetation clearing, drainage improvements, signing and striping, lighting, and adjusting utilities as needed.

Support activities would include staging, stockpiling, material sourcing, and potentially minor disposal of unusable excavation. Staging and stockpiling will occur on the lease lot in areas designated for development. Material would be sourced from local permitted sites and trucked in using existing roads. No improvements to roads would be necessary to truck in fill. Excavated materials from the project area will be re-used in construction to the greatest extent possible. Material unusable for construction of the cargo infrastructure will be used to build the earthen berm.

The proposed project design must comply with FAA Advisory Circular 150/5300-13B *Airport Design* which contains the FAA standards and recommendations for the geometric layout and engineering design of runways, taxiways, aprons, and other facilities at civil airports.

2.3 Alternatives Development and Comparison

Alternatives developed and evaluated under this project include the No-Action alternative and the Proposed Action. The No-Action alternative represents baseline conditions from which the environmental impacts of the Proposed Action can be measured.

In order for an alternative to be considered, it must be reasonable, feasible, and meet the project's purpose and need. Alternatives that were considered for analysis under the purpose and need were limited to ANC property. The purpose of any proposed development would be to develop infrastructure to efficiently support air cargo operations at ANC. Off-site locations to develop such infrastructure would not be reasonable or feasible. Additionally, the location proposed for development is already leased to NorthLink Aviation, as such the screening criteria for alternatives is limited to the lease lot, subsequently the only reasonable alternatives to assess are No-Action and the Proposed Action on the NorthLink Lease Lot. Design measures to avoid or minimize impacts of the Proposed Action were not considered alternatives, rather design changes, because the project variations all largely have the same footprint and location.

2.3.1 Alternatives Considered but not Carried Forward

Alternatives that were considered for analysis under the purpose and need were limited to ANC property. The purpose of any proposed development would be to develop infrastructure to efficiently support air cargo operations at ANC. Off-site locations to develop such infrastructure would not be reasonable or feasible. Figure 4 shows the layout of ANC Airparks and land already leased to other entities. Alternative locations for the proposed cargo facilities are listed below and a description as to why each location was not viable. Screening criteria developed from the purpose and need statement are shown in Table 1 as well as the viability analysis. The only viable alternative beyond the No-Action is the Proposed Action.



Figure 4: ANC Airpark Locations

2.3.1.1 *South Airpark Siting the Facility to the West*

Moving air cargo infrastructure to the west of the current lease lot, but still south of the east/west runway would bring the cargo facilities closer to Kincaid Park, a protected resource discussed below in Section 3.2 Section 4(f), and 3.4 Historical, Architectural, Archaeological, and Cultural Resources. According to public comment, Kincaid Park is one of, if not the most valuable resources in the vicinity of the airport. Early public comment and statutory requirements that would be required to develop closer to Kincaid Park were the limiting factors for consideration. Siting the facility to the west was not considered a reasonable alternative.

2.3.1.2 *West Airpark*

West Airpark is generally undeveloped land on ANC property located west of the north/south runways. The ALP shows future conditions for the West Airpark to include an additional north/south runway, additional taxiways and roads. Developing air cargo infrastructure at this location was not considered feasible because of the limited available space remaining in consideration of the additional north/south runway which is proposed to be sited through the middle of the West Airpark. The pending lease area is proposed for parking positions however the limited size would not accommodate 14 hardstands and was not considered reasonable.

2.3.1.3 *North Airpark*

North Airpark currently has limited undeveloped land available for additional cargo infrastructure. Most of the developable land is currently under lease by FedEx and Alaska Cargo and Cold Storage. One location adjacent Point Woronzoff Drive is undeveloped and available for lease, however the location does not have sufficient space to site 14 hardstands. Other undeveloped/unleased land exists east of Postmark Drive, however that location would not have access to runways or taxiways. The location east of Postmark would also be sited entirely in wetlands making it substantially less desirable. The North Airpark was not considered a reasonable alternative due to its disproportionate wetland impacts to South Airpark and it was also determined to be not feasible due to the tremendous infrastructure changes that would be required to connect the location to taxiways and runways.

2.3.1.4 *Hard Stands Throughout ANC at Various Locations*

Developing discontinuous hardstands throughout airport property was considered and dismissed as not reasonable. Discontinuous hardstands throughout airport property may not have efficient access to taxiways and other facilities such as fueling, warehouses, and power. Discontinuous cargo parking would not be efficient and would not meet the need for creating a draw for cargo carriers to choose ANC and further develop ANC as an economic hub.

Table 1: Alternative Screening Criteria and Viability Analysis

Hardstands					
Lease Opportunities for each Location	Y – A lease has been secured for the proposed action.	N – There is currently no leasing opportunities west of the proposed action.	Y – The West Airpark leasing opportunities are currently pending. Leasing opportunities may become available.	Y – Leasing opportunities may be available, but no lease has been secured.	N – There are currently no leasing opportunities for discrete locations throughout ANC.
ANC Master Plan Conditional ALP Approval	Y – The FAA has conditionally approved the ALP including cargo developments at the South Airpark Location	Y – The FAA has conditionally approved the ALP including cargo developments at the South Airpark Location	Y – The FAA has conditionally approved the ALP including cargo developments at the West Airpark Location	Y – The FAA has conditionally approved the ALP including cargo developments at the North Airpark Location	N – The ALP does not support discrete hardstands throughout the airport at various locations.
Access to taxiways and/or runways	Y – The proposed action is currently located adjacent a taxiway providing connectivity to runways.	N – Siting the facilities on the western portion of South Airpark would require the construction of a taxiway to connect jets to a runway.	Y – The West Airpark location could reasonably be constructed adjacent an existing taxiway.	N – North Airpark locations available for development would require substantial construction for runway connectivity.	Y – Placing discrete hardstand locations adjacent existing taxiways would be feasible.
Sufficient space for 14 cargo planes and warehouse facilities*	Y – The South Airpark location has capacity to create over 15 parking positions and warehouse facilities.	Y – Siting to the west in the South Airpark location has capacity to create over 15 parking positions and warehouse facilities.	N – The West Airpark does not have space sufficient to accommodate 14 parking positions and a warehouse.	N – The North Airpark does not have space sufficient to accommodate 14 parking positions and a warehouse.	Y – It is reasonable to find 15 parking positions throughout ANC property, and space for a warehouse.

*Purpose and need demonstrates an ANC deficit of 14 cargo parking positions.

2.3.2 Comparison of Environmental Impacts

Environmental impacts anticipated are discussed below in Chapter 3. Several environmental impact categories are not expected to be affected by the Proposed Action. Table 2 compares the No-Action and the Proposed Action environmental impacts for those environmental categories that the project may affect, as well as the purpose and need. A discussion of the environmental impact categories considered but found to have no impact from the proposed project can be found in Section 3.1.

Table 2: Comparison of Environmental Impacts by Alternative

	No-Action	Proposed Action
Section 4(f)	No effect	<ul style="list-style-type: none"> No temporary occupancy, permanent incorporation. Constructive use was considered for noise and visual impacts to Kincaid Park. A noise analysis showed no adverse impact; visual analysis demonstrated no visual impacts. No adverse impacts to historic properties.
Hazardous Materials, Solid Waste, and Pollution Prevention	No effect	<ul style="list-style-type: none"> Proposed project is not anticipated to encounter groundwater from listed sites. Permitted, local solid waste facilities are anticipated to meet demand for solid waste generated by construction and future operations. Site testing for contaminants showed no contaminants occur at levels above Alaska Department of Environmental Conservation (ADEC) cleanup recommendations. Project will introduce the first onsite glycol recovery and recycling system at ANC, improving stormwater pollution resulting from plane deicing.
Cultural Resources	No effect	<ul style="list-style-type: none"> No historic properties affected. Inadvertent discoveries of cultural resources may occur during project construction but are not anticipated due in part to the amount of previous disturbance.
Noise and Noise Compatible Land Use	Existing trees and vegetation may buffer some of the noise from ANC to the surrounding neighborhoods	<ul style="list-style-type: none"> Noise analysis concluded that noise from the project does not meet the threshold for significant impact.
Visual Effects	No effect	<ul style="list-style-type: none"> Project may be visible from adjacent neighborhood; however, the project is consistent with the character of the surrounding area. The project will not be visible to trail users of Kincaid Park.
Wetlands and Groundwater	Area would continue to receive rain for groundwater recharge. No effect on wetlands or surface water.	<ul style="list-style-type: none"> No impacts to jurisdictional wetlands. The addition of an impervious surface may create a localized impact on groundwater recharge.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter is a review of the existing environment, describing the resources that may be affected by the proposed alternatives, including the No-Action alternative. This chapter also discusses impacts to the existing environment resulting from the proposed alternatives. Environmental effects include direct, indirect, and cumulative impacts.

- Direct impacts include effect caused by the Proposed Action and occurring at the same time and place.
- Indirect impacts are effects which are caused by the action that are later in time or farther removed in distance but are still reasonably foreseeable.
- Cumulative impacts are the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.

3.1 Environmental Impact Categories Not Affected

Environmental consequences are reasonably foreseeable environmental impacts from the Proposed Action. The following Federal Aviation Administration (FAA) environmental impact categories are summarized below and are because the resource is not present or because there is no potential for the alternatives to result in any measurable adverse impact.

- Air Quality
- Biological Resources
- Climate
- Coastal Resources
- Section 6(f) of the Land and Water Conservation Fund Act
- Farmlands
- Land Use
- Natural Resources and Energy Supply
- Socioeconomic, Environmental Justice, and Children's Environmental Health and Safety Risks
- Water Resources (floodplains, surface water, Wild and Scenic rivers)

Air quality

While the operations at ANC are not expected to change as a result of the NorthLink improvements, the proposed development may reduce delay for arriving aircrafts. Implementation of the Proposed Action could prove beneficial from an air quality perspective, although not specifically modeled for purposes of the analysis, emissions could be reduced because of less plane idling with hard stand use. Additionally, the net total of direct and indirect emissions from the Proposed Action would not represent 10% of total emissions for carbon

monoxide in the State Implementation Plan (139.1 tons/day) and, therefore, is not considered regionally significant. The Proposed Action conforms to the State Implementation Plan and the Clean Air Act and would not create any new violation of the National Ambient Air Quality Standards (NAAQS), delay the attainment of any NAAQS, nor increase the frequency or severity of any existing violations of the NAAQS; as such, no adverse impact on local or regional air quality is expected by construction of the Proposed Action.

Biological Resources

ANC has contracted with the U.S. Department of Agriculture (USDA) Wildlife Services (WS) for the purpose of Wildlife Hazard Management since 1996. WS has been tasked with mitigating wildlife/aviation conflicts and employs various techniques to ensure airport property is free of wildlife. To this end, there is no suitable habitat for terrestrial or avian wildlife on airport property, or in the project area. Additionally, there is no fish habitat in the project area. The area of direct impacts would be areas of clearing and grading on the NorthLink lease lot. The area of indirect impacts would be the areas of the NorthLink lease lot that are not proposed for development (the southern portion where an approximate 500-ft vegetative buffer is reserved) and forested areas west of the project. North of the project is an east/west runway and east of the project is already developed aviation facilities. Both the direct and indirect impact areas are located on airport property and are subject to WS Wildlife Hazard Management. Both the direct and indirect impact areas have active measures to remove wildlife, as such they are unsuitable habitat for wildlife.

The project area occurs mostly within the existing ANC boundaries and runway object-free areas, which require an area devoid of obstructions, including most vegetation. The project will not impact land vegetation resources upon which wildlife is dependent. According to the Alaska Exotic Plant Information Clearinghouse online mapper, no invasive species are documented in the project area.

Climate

Cloudy conditions, short summers, and moderate to cold temperatures characterize the climate of this area. The average annual precipitation ranges from about 15 to 30 inches to more than 100 inches in the highest mountains in the region. Later summer and fall are generally the rainiest months. The average annual snowfall ranges from about 80 to 400 inches or more. The average frost-free period is about 60 to 80 days. At higher elevations, freezing temperatures can occur during every month.

Projected impacts of climate change for Southcentral Alaska include increased temperatures leading to milder winters, increased rain over the winter, and decreased snowpack. Precipitation is expected to increase in the form of rain, however higher temperatures would increase evapotranspiration and conditions are expected to be overall drier. The Proposed Action is expected to be resilient to the effects of climate change as the drainage infrastructure will withstand increased rain and higher temperatures in Alaska are still relatively mild.

The introduction of a new fleet of cargo jets would be a primary measure of greenhouse gas (GHG) emissions with which to assess climate change impacts. However, the project is developing hardstand parking for an existing fleet of cargo jets, as such no long-term GHG emissions will result from the project; negligible GHG emissions may result from construction activities, as described below. The current cargo fleet mix is not expected to change due to the

increased parking availability, rather the apron and hardstands will provide more efficient parking adjacent runway 15-33 and taxiway zulu.

GHG emissions due to construction will likely be carbon dioxide (CO₂) emissions from heavy machinery such as excavators, dozers, loaders, smooth drum rollers, sheep's foot roller, ski loader, rock trucks, dump trucks, blade motor grader, and potentially scrapers. The EPA's Simplified GHG Emissions Calculator was used to quantify project emissions (U.S. EPA, 2022). The engineer's estimate for total diesel fuel needed for project construction is 361,680 gallons. The engineer's estimate for total motor gasoline needed for project construction is 21,310 gallons. According to the GHG Emissions Calculator the total CO₂ metric ton emissions from heavy machinery during project construction is 3,879 metric tons over a two year period. Project construction will not warrant a climate change analysis under NEPA.

Coastal Resources

There are no coastal resources within or adjacent the project area and the State of Alaska does not participate in the Coastal Zone Management Program.

Section 6(f) of the Land and Water Conservation Fund Act

Section 6(f) properties are those protected by the Land and Water Conservation Fund (LWCF) Act because they were purchased by LWCF money. The list of 6(f) properties is maintained by the Alaska Department of Natural Resources. There are no 6(f) properties within or adjacent the project area.

Farmlands

The U.S. Department of Agricultural, Natural Resources Conservation Service Web Soil Survey indicates there is no designated prime or unique farmland, farmland of statewide importance, or farmland/soil of local importance in the project area.

Land Use

The proposed project is consistent with the municipal, state, and federal intended uses for the land. The project area is zoned by the Municipality of Anchorage as Public Lands and Institutions (airport). The project area was leased from State of Alaska ANC specifically for development purposes; the Airport Layout Plan lists the South Airpark Development in the recommended capital improvement and land acquisition projects. The FAA Section 163 determination found the project to be consistent with the intended use of the land, as set forth in 49 U.S.C. §§ 47107(b) and 47133.

Natural Resources and Energy Supply

Once construction is complete, the proposed airport improvements would not have a measurable effect on the local energy supply or existing natural resources. The proposed project will have a connection to ANC underground refueling system which pumps nearly two million gallons of jet fuel per day from nine four-million-gallon tanks. Energy demands would not exceed available or future energy supplies.

The Proposed Action will utilize measure to reduce the energy consumption required for facility operations. The project is proposing light-emitting diode, commonly referred to as LED, lighting

to reduce energy consumption when compared to incandescent or fluorescent lighting. Additionally, the proposed terminal facility will be Leadership in Energy and Environmental Design (LEED) certified further reducing energy consumption during facility operations through design standards based on energy efficiency.

Socioeconomics, Environmental Justice, Children’s Environmental Health and Safety Risks

No adverse socioeconomic impacts are expected as a result of the proposed project. Public comments have addressed socioeconomic concerns for the project including impacts to residential property values and job creation. The proposed project is not expected to result in a change of residential property values in a measurable way, primarily because the character of the neighborhood is not expected to change due to the Proposed Action. Additional details can be found in the sections discussing visual character (below) and noise (Environmental Assessment Section 3.5 and 3.6). The proposed project will not have a deleterious impact to local employment. The proposed project is expected to create jobs and provide a benefit to the economy.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, directs federal agencies to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. The Executive Order is often referred to as Environmental Justice. A review of the Environmental Protection Agency Environmental Justice Mapper was conducted on March 24, 2022 to capture a one-mile buffer around the project area. The results showed that 75 percent of households in the selected area identify as white and at least 90 percent of households are above the Alaska poverty rate of \$44,660. Minority and low-income populations would not be disproportionately affected by the proposed project.

The Proposed Action alternative would not result in disproportionately high or adverse human health or environmental effects, or children’s environmental health and safety risks, as the Proposed Action would not result in substantial impacts to environmental resources (including noise, air quality, water quality, and cultural resources).

Visual Resources / Visual Character

The Proposed Action is not expected to have any adverse light impacts. The location is on airport property and lighting is not expected to significantly or cumulatively increase existing airport lighting impacts. Operations, including aircraft movements, will largely be obscured to the residential neighborhood south of the project area by a 25-foot-high earth berm. The tallest residential point near the project area is 282-feet and approximately 1,250-feet from the project area. The earth berm is expected to block line of sight to the project area for the residences south of the project area.

Water Resources (floodplains, surface waters, wild and scenic rivers)

Floodplains – Floodplains in the area are shown on Federal Emergency Management Agency Flood Insurance Rate Maps 0200050720D (effective 9/25/2009) and 0200050740D (effective 9/25/2022). The project area is in a Zone X, defined as an area of minimal flood hazard. The project is not expected to have any floodplain impacts.

Wild and Scenic Rivers - The National Park Service's National Wild and Scenic Rivers System (WSRS) list and Nationwide Rivers Inventory (NRI) indicates there are no designated units of the WSRS or NRI-designated waters in the project area or vicinity.

3.2 Section 4(f)

Regulatory Context

Section 4(f) of the U.S. Department of Transportation Act establishes the requirement for consideration of park and recreational lands, wildlife and waterfowl refuges, and historic sites in transportation project development. Section 4(f) states that federally funded transportation projects may use land from a 4(f) protected resource only if there is no prudent and feasible alternative to using that land, and the project includes all possible planning to minimize harm to the impacted resource.

Potential impacts to 4(f) properties are defined as:

1. When land is permanently incorporated into a transportation facility
2. When there is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose as determined by the criteria in §774.13(d)
3. When there is a constructive use of a Section 4(f) property as determined by the criteria in §774.15.

3.2.1 Affected Environment

The proposed project is located approximately three-quarters of a mile from Kincaid Park. No other parks, recreational areas, wildlife and waterfowl refuges, or historic sites were identified in the vicinity of the project (Figure 5).

Kincaid Park is one of the largest parks within the Municipality of Anchorage and is protected by Section 4(f) of the U.S. Department of Transportation Act. The Park has nearly 40 miles of walking trails and 20 miles of single-track bike trails which morph into a cross country ski trail system over the winter. Kincaid has soccer fields, an 18-hole disc golf course, an archery range, and fish in little Campbell Lake, in addition to other amenities (MOA 2022). The Park is a popular destination year-round in Anchorage. The eastern-most portion of Kincaid Park, including Little Campbell Lake, although used for recreation and managed by the Municipality of Anchorage, is actually State of Alaska Airport property and designated for future airport development on the 2014 Airport Layout Plan (sheet 32, 2014 ALP). The actual boundary of Kincaid Park is separated from the proposed project by almost three-quarters of a mile of Airport land, including a fire training pit and a shooting range for law enforcement. The closest patron amenities to the proposed project are in the State of Alaska owned eastern-most portion of Kincaid Park and include an access road and parking lot for Little Campbell Lake, and multiuse trails.

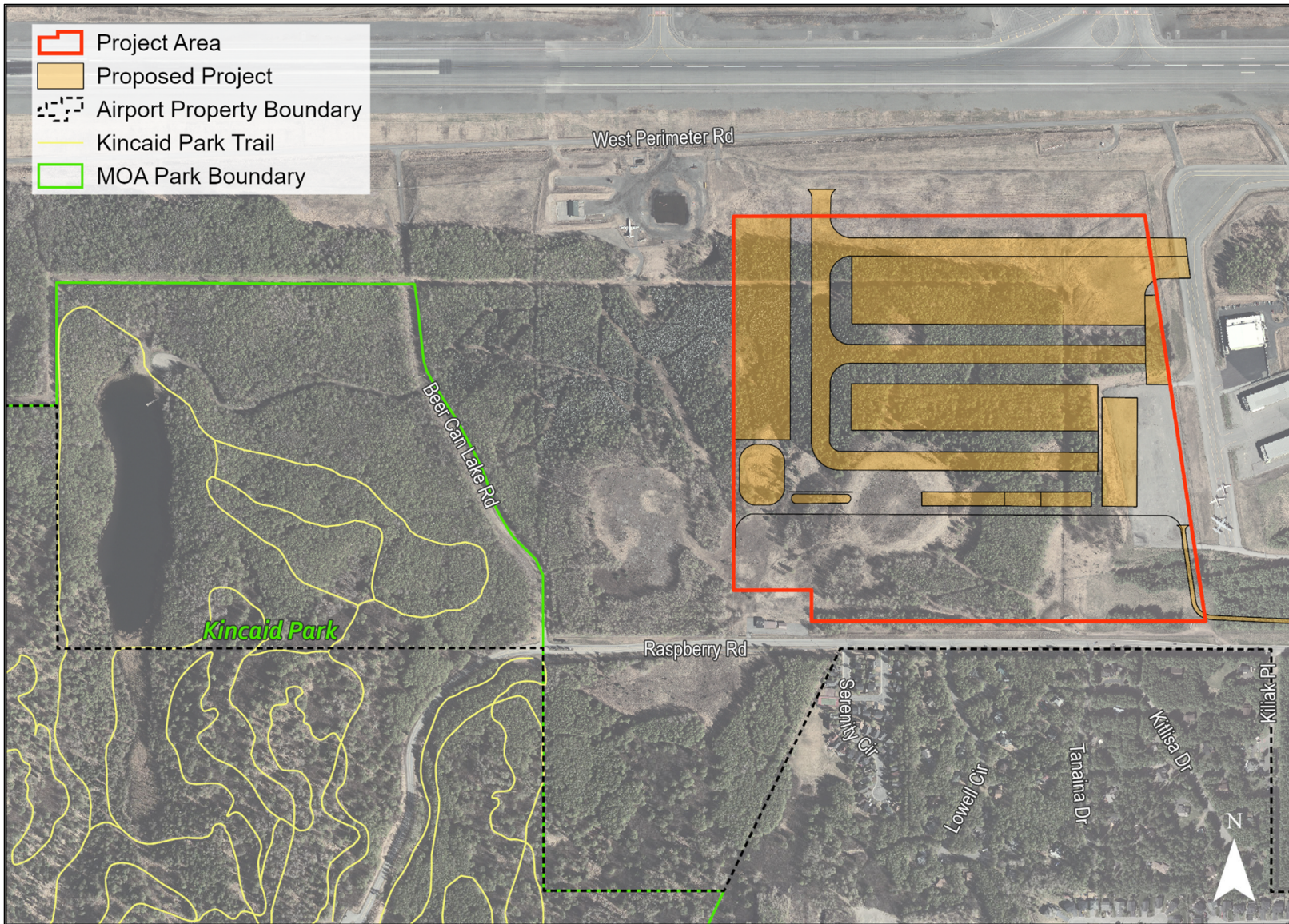


Figure 5: 4(f) Resources in the Project Vicinity

3.2.2 Environmental Consequences

Significance Thresholds

The FAA defines the significance threshold for impacts to 4(f) properties as when an action's physical use would be more than minimal, or its constructive use substantially impairs the 4(f) property.

FAA Order 1050.1F Desk Reference (2020) describes constructive use as impacts so severe that they result in a take in a practical sense. The Desk Reference provides the example of a noise impact of such high levels and of such substantial nature that amount to taking a park or portion of a park for transportation purposes. The interpretation indicates a constructive use is one so severe that a portion of a park cannot and will not be used for its intended purpose.

3.2.2.1 Direct and Indirect Impacts

No-Action

The No-Action alternative would have no effect on Kincaid Park. The existing landscape would remain the same and there would be no change to activities, features, or attributes that qualify Kincaid Park for 4(f) protection.

Proposed Action

The proposed project will not permanently incorporate land from a 4(f) protected property, nor will the proposed project temporarily use land from a 4(f) protected property.

A constructive use of a 4(f) property occurs when the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for 4(f) protection are substantially impaired. Substantial impairment occurs when the protected activities, features, or attributes of the property are substantially diminished. Kincaid Park activities that may occur closest to the proposed project include skiing, hiking, biking, or other trail use. Kincaid Park could be considered a noise sensitive area due to the nature of the activities in the park, however Kincaid Park is adjacent to airport property along the park's northern border.

Kincaid Park is closer to the busier east/west runway than the proposed project. An Environmental Noise Impact Study conducted for this project (Appendix D) demonstrates that there will not be a significant noise impact, as defined by the FAA (see Noise and Noise Compatible Land Use discussion below), to Kincaid Park. As depicted in the noise contours found in Appendix A to the noise study, the area north of Little Campbell Lake is predicted to be within the DNL 65 and 70 dB for the 2020 ANC Predicted DNL Noise Contour Map. Meanwhile, the proposed project will produce noise anticipated to be at or below DNL 54 dB for Kincaid Park, therefore noise from the project will be subsumed unto the louder noise profile of the area. Although Kincaid Park already encounters noise impacts from ANC, Kincaid Park still continues to be one of the most popular parks in Anchorage. The proposed project will not substantially impair the activities within the park and there will subsequently be no constructive use of a 4(f) property due to noise impacts.

The proposed project will clear vegetation in the vicinity of Kincaid Park and build cargo facilities. The tallest structures of the Proposed Action are a 50- to 60-foot cargo terminal facility

and 60-foot-tall lighting poles (all on finished grade of approximately 120 feet elevation). Trails located on the eastern side of the park will have a vegetative buffer and the highest elevation point within these trails is approximately 236 in elevation. Clearing required for the proposed project will occur nearly one-quarter mile to the east of Kincaid Park, and further still from the nearest trail. Line of sight from the highest elevation points of the closest trail to the project area was evaluated and is described in detail in Section 3.6 Visual Resources / Visual Character. Line of sight from the trails is not possible due to the vegetation; no visual impacts are anticipated, accordingly there is no constructive use due to visual impacts.

Construction of the proposed project will not impede access to Kincaid Park, a section 4(f) resource, however, temporary noise impacts may result from construction activities, such as the operation of heavy equipment and the presence of construction crews. Abatement methods such as proper maintenance of construction equipment would help reduce these impacts.

3.2.2.2 Cumulative Impacts

Cumulative impacts from the project on 4(f) resources are not anticipated. There are no reasonably foreseeable changes or additions to the proposed project that will substantially impair, or otherwise use a 4(f) resource. Visual impacts due to line of sight would only be possible if vegetation within Kincaid Park was removed, which is not a reasonably foreseeable action.

3.3 Hazardous Materials, Solid Waste, and Pollution Prevention

Regulatory Context

Executive Order 12088, *Federal Compliance with Pollution Control Standards*, requires that federal agencies comply with applicable pollution control standards – chiefly those stemming from the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA). The ADEC Contaminated Sites Program manages cleanup and regulation of sites with contaminated soil or groundwater in Alaska.

3.3.1 Affected Environment

According to ADEC's contaminated sites database, sites designated as "cleanup completed" are adjacent to the project area (ADEC, 2022). These include the Federal Communications sites (Hazard IDs 23323 and 23335) (Figure 6). The Anchorage International Airport (AIA) Fire Training Pit (Hazard ID 414) is also adjacent the Proposed Action has been re-opened as an "active" contaminated site due to recent detection of per- and -polyfluoroalkyl substances (PFAS). The adjacent sites are described below. Additional contaminated sites (Table 3) are located within the project vicinity; however, they are not anticipated to affect the project area based on distance and/or topographic gradient relative to the project area.

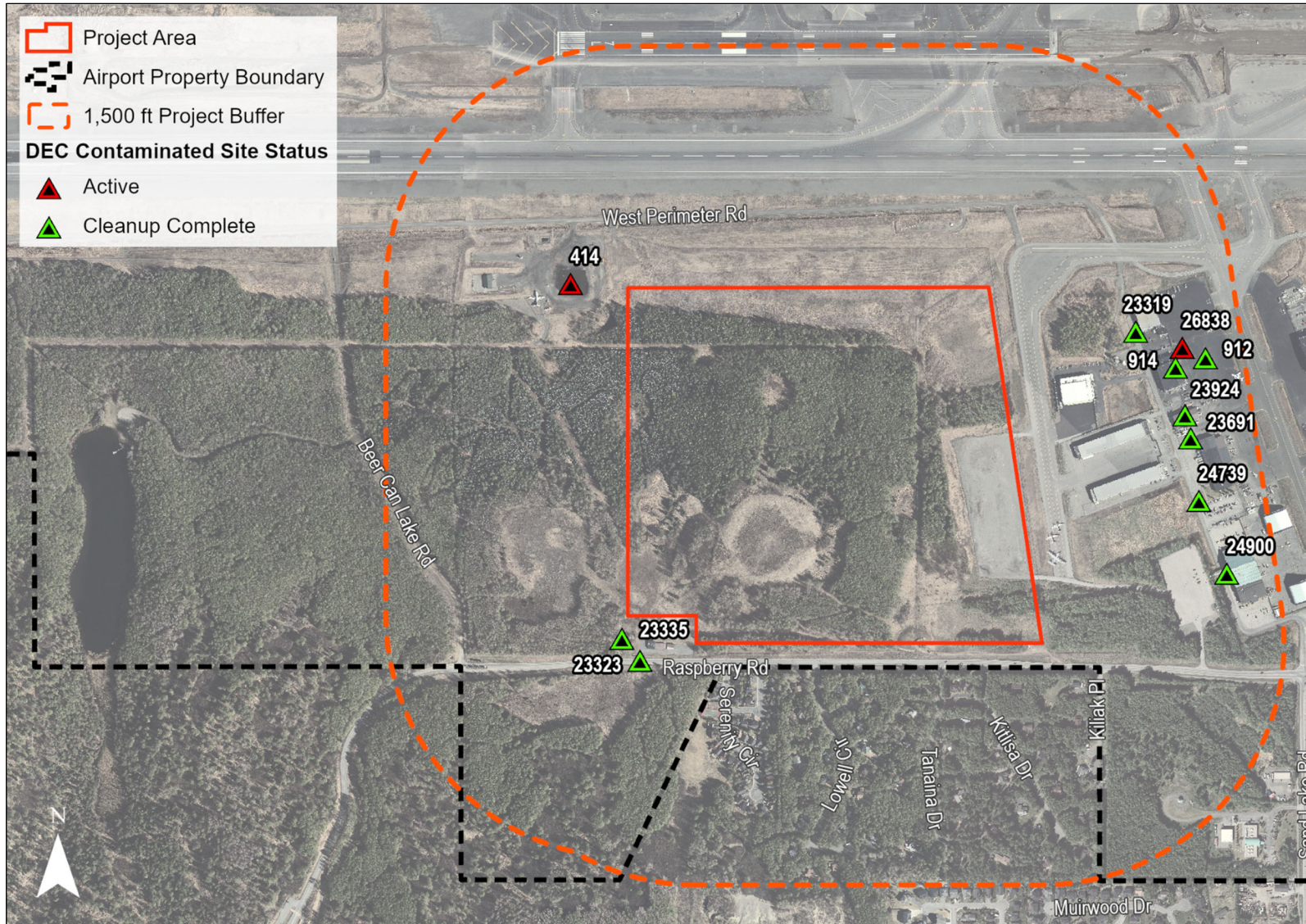


Figure 6: Contaminated Sites in the Project Vicinity, by Hazard ID and Status

Table 3: ADEC Contaminated Sites within 1,500 feet of the Proposed Action

Hazard ID	Site Name	Status	Approximate Distance
23319	F.S. Air Service	Cleanup Complete	800ft
26838	AIA Signature Flight Support UST Dispenser	Active	1,100ft
912	F.S. Air Service	Cleanup Complete	1,250ft
914	MarkAir - Anchorage 2	Cleanup Complete	1,050ft
23924	MarkAir Facility (Former)	Cleanup Complete	1,100ft
23691	United Parcel Service	Cleanup Complete	1,100ft
24739	AIA Lynden Incorporated Facility	Cleanup Complete	1,100ft
24900	Troy Air Hangar	Cleanup Complete	1,200ft

AIA Fire Training Pit

The AIA Fire Training Pit (Hazard ID 414) is located approximately 130 feet west of the project area in a down-gradient topographic position. The facility was constructed in 1970 as part of a six-acre fire training facility. Between 1970 and 1989, fire training exercises were reportedly conducted in unlined depressions throughout the facility but were predominantly located near the existing fire pit. Fuels, waste oil, waste solvent, and alcohol were burned in the fire pit during the training exercises. Initial site investigations detected gasoline range organics in soil at a concentration of 22 milligrams (mg)/kilogram (kg) at 20 feet below ground surface (bgs), diesel range organics (DRO) in soil at a concentration of 1,400 mg/kg at ground surface, and residential range organics (RRO) in soil at a concentration of 2,600 mg/kg at 15 feet bgs. Volatile organic compounds, polyaromatic hydrocarbons (PAHs), and polychlorinated biphenyls were also detected, but below the ADEC cleanup criteria. Groundwater was encountered with concentrations of DRO and RRO detected below ADEC cleanup criteria. In 1989, approximately 7,000 cubic yards (cy) of contaminated soil were excavated and placed in the AIA landspreading area, approximately 2,700 feet northwest of the project area (ADEC, 2022b).

The fire training facility was updated in 1990 to include a liner and water treatment system. Use of the fire training pit continued, and contaminants of concern were later detected in groundwater monitoring wells. In 2003, ADEC determined the facility did not present a risk to human health or the environment and could be conditionally closed based on remedial actions to date and updates to the fire training pit. ADEC did note that groundwater monitoring should continue and areas of contaminated soil that exceed cleanup levels were still present. Any proposed transport of soil from the site would be subject to ADEC approval in accordance with 18 AAC 75.325(i) (ADEC, 2003). Long-term groundwater monitoring commenced in 2006 and ceased in 2012, at which point natural attenuation likely resolved remaining contaminants of concern found in the groundwater. In 2013, institutional controls were removed; however, restrictions on transporting soil or groundwater still applied. A groundwater monitoring well was installed prior to 2003 to assess perfluorinated compounds (PFCs). PFCs were detected below the cleanup threshold in groundwater during the 2016 and 2017 sampling events (ADEC, 2022b).

Federal Communications Commission

The Federal Communications sites (Hazard ID 23323 and 23335) are located directly southwest of the project area in a down-gradient topographic position. In 1999, a 500-gallon underground storage tank containing diesel, used to fuel an emergency generator, was removed. Low levels of PAHs, below ADEC cleanup criteria, were detected in soil samples. The site received closure after ADEC reviewed the analytical data (ADEC, 2022c).

Project Area Testing

- A Phase I Environmental Site Assessment (ESA) for the project was completed in May 2021 (Appendix B). The purpose of a Phase I ESA is to determine the likelihood that a particular property may contain hazardous substances. The Phase I ESA noted that chemicals containing PFAS and aqueous film forming foam were applied to an area south and east of the fire training pit, which includes portions of the project area, as fire prevention in dry years during training.
- In response to the Phase I ESA, a site investigation for the project area was completed in October 2021 (Appendix B). Nine surface soil samples were analyzed for PFAS/perfluorooctane sulfonic acid (PFOS). Concentrations of PFAS/PFOS were not detected in exceedance of ADEC cleanup criteria. However, the report suggested the evaluation of subsurface soils due to the highly mobile characteristics of PFCs.
- A PFAS investigation was conducted on behalf of the Alaska DOT&PF for a proposed Taxiway Zulu extension directly north of the Proposed Action (RSE 2021). The results of the investigation showed one location in the footprint of the proposed taxiway extension that tested for PFAS in exceedance of recommended levels. The test location is outside of the Proposed Action footprint.
- In response to the surface PFAS sampling results and the DOT&PF investigation (two bullet points above), additional subsurface testing was conducted in April 2022 in coordination with geotechnical drilling. Twelve soil samples were collected for lab analysis from five to ten feet below the ground surface; of greater depth than that of the October 2021 investigation. Lab results show that PFAS compounds, including specifically PFOA/PFOS, were undetectable in any of the subsurface samples. Please see Appendix B for the PFAS subsurface testing report.

3.3.2 Environmental Consequences

Significance Threshold

FAA Order 1050.1F does not define quantitative significance thresholds for hazardous materials, solid waste, and pollution. This assessment considered the following factors regarding whether the No-Action and Proposed Action would have the potential to:

- Violate applicable Federal, state, tribal, or local laws or regulations regarding hazardous materials and/or solid waste management.
- Involve a contaminated site with unmitigated adverse effects.
- Produce an appreciably different quantity or type of hazardous waste.

- Generate an appreciably different quantity or type of solid waste or use a different method of collection or disposal and/or would exceed local capacity.
- Adversely affect human health and the environment.

3.3.2.1 *Direct and Indirect Impacts*

No-Action

The No-Action alternative would have no effect on hazardous materials, solid waste, or pollution because there would be no work performed that would generate waste or other pollutants, and no potentially contaminated soil would be disturbed. Any remaining contaminated soil in the area may degrade over time through natural attenuation.

Proposed Action

The Proposed Action is located adjacent areas of documented soil contamination, related to Hazard ID 414, AIA Fire Training Pit. Ground disturbing activities, including vegetation clearing, excavation, and earthwork, would be required for the construction of the Proposed Action. PFAS contamination is known in the general area but was not found in surface or subsurface testing of the project area, including in the northwest portion of the project area. Additionally, the northwest corner of the project area is proposed for fill, not excavation, as such no movement of soils is expected. Because PFAS testing results showed no indication of PFAS or levels below cleanup guidelines, and because no excavation work will be required in the vicinity of AIA Fire Training Pit (with known PFAS contamination) the proposed project is not expected to encounter any contamination during construction activities. DEC confirmed that no further action is needed unless excavation is proposed in the northwest corner of the project (see Appendix H for documentation). In a follow-up response, DEC sought additional time to further test soils in the area for PFAS and conduct PFAS testing in wells of Sand Lake residents to the south of the ANC. Upon completion of the well testing, DEC further clarified that environmental testing of nearby soils will continue, but that no further site characterization would be needed for the Proposed Action. If contaminated materials are identified during the period of construction as a result of ongoing DEC testing, or otherwise, a contaminated materials management plan, approved by DEC, would be required. Well testing results may be accessed by contacting either the FAA or the ANC contacts listed on the cover page of this Final EA. Documentation of coordination with DEC can be found in Appendix H.

Additionally, PFAS impacts to groundwater are not expected because the proposed project will not be moving contaminated soil and groundwater will not be contacted as a result of project construction (see Section 3.7 for additional discussion). Post-construction conditions will include an impervious surface that will stop water from percolating through the soil into groundwater.

Due to the largely undeveloped nature of the project area, the Proposed Action would generate minimal construction waste. Hazardous materials used during construction would be limited to minor amounts of fuel, lubricants, hydraulic fluids, cleaning solvents, and paint. Any construction waste generated would be disposed of at the local landfill in accordance with state and federal laws and regulations. Stormwater discharges during construction would adhere to a Storm Water Pollution Prevention Plan (SWPPP) required under a Construction General Permit. Stormwater during facility operations will drain into the ANC stormwater system.

Over time, the Proposed Action may result in incidental and minor releases of hazardous materials within the project area due to the storage, transport, and refueling of glycol, diesel

exhaust fluid, and diesel. Depending on the quantity of hazardous materials, a spill prevention, control, and countermeasure plan may be required and implemented per 40 CFR 112 and ADEC spill prevention and response regulations outlined in 18 AAC 75. In addition, the project will be required to comply with the hazardous materials, storage, and spill directives of the ANC Lease (ADA 32351), ANC Operations Manual, and all applicable airport regulations.

One of the primary activities that contribute to water pollution at airports around the country is the use of glycol-based aircraft deicing fluids. Glycol mixed in a stormwater discharge has the potential to migrate to receiving waters and reduce available oxygen to aquatic life. There is no current plan to avoid the use of glycol, however the project will construct a glycol recovery and recycling facility to prevent glycol impacts to water quality; the first such facility at ANC. The glycol recycling process includes catching glycol mixed with snow, rain, or ice in a separate storm drain system which drains into a cistern. The water/glycol mix is pumped from the cistern into glycol concentrators which use heat to separate water and glycol. The remaining glycol, now distilled, goes into a finishing unit to bring the used glycol up to FAA standard for re-use. Overall, impacts to water quality resulting from glycol use at ANC will decrease due to the glycol recovery and recycling system.

3.3.2.2 Cumulative Impacts

Any releases of hazardous materials over time are expected to be remediated by primary, secondary, and tertiary spill response mechanisms, and stormwater collection facilities in the event that stormwater becomes contaminated. The mechanisms include:

- Primary containment: Mobile fluid spill kits stocked with absorbent socks, pads, pillows, and loose absorbents to prevent fuel from entering storm drains.
- Secondary containment: Oil/water separator in storm water system prevents any fuel that enters the storm water system from exiting.
- Tertiary containment: Closure of valves connecting storm water system to systems off-property contains spilled fuel on the property.

Cumulative impacts may result from two 16- inch diameter fuel pipelines planned for construction that will support the aviation infrastructure of South Airpark—including the planned aircraft cargo infrastructure discussed herein. If the pipelines are constructed, they will be owned by AFSC who contracts with Menzies for operation and maintenance of AFSC's facilities at the Airport. The fuel pipeline is schedule to be installed at around the same time that of work in the Project Area. The fuel lines are approximately 2,000 feet long and will be installed using Horizontal Directional Drilling (HDD). HDD was chosen as the method of installation because it is a well-established trenchless construction technology designed for traversing sensitive infrastructure and waterbodies. The installation also takes place to the north of the Project Area, not in the Project Area. It is reasonably foreseeable that cargo tenants of the NorthLink Lease Lot development would also request water, sewer, natural gas, and electricity connections for the warehouse. Utility connections—whether to the NorthLink lease lot or to other tenants in South Airpark—would potentially be ground disturbing and some connections would contain hazardous materials, such as natural gas or aviation fuel. The demand for future connections by other airport tenants in South Airpark to the fuel line is unknown. Future demand for access to the fuel line or future development in South Airpark is more likely to be dependent on long-term aviation demand than on the presence or not of the fuel line extension. While the fuel line might leak—as any pipeline transmitting liquids could theoretically do—such eventuality is too speculative to address here. The method of installation is not anticipated to create the need for movement or disposal of contaminated material.

It is reasonably foreseeable that companies providing deicing services will operate at the NorthLink Lease lot development. Spills resulting from filling deicing trucks may occur, however the net benefit of the proposed glycol recovery and recycling system would outweigh any cumulative impacts from spills containing glycol.

3.4 Historical, Architectural, Archaeological, and Cultural Resources

Regulatory Context

Historic properties are afforded special consideration by Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA). Historic properties are cultural resources that are listed on, or determined eligible for, inclusion on the National Register of Historic Places (NRHP). Historic properties may include archaeological artifacts or features, and historic standing structures more than 45 years old.

3.4.1 Affected Environment

The area of potential effects (APE) is that area within which direct and indirect effects may occur to archaeological, historical, or other cultural resources as a result of proposed Project activities. The combined direct and indirect APE consists of the 121-acre proposed project area. There are no standing structures within the APE. Ground cover consists of mixed forest and areas disturbed by previous development and airport activities. Visible ground disturbance in the project area has resulted from operation of an asphalt pit formerly located on a gravel pad in the eastern portion of the project area. Additional ground disturbance is ongoing in the project area. Hydrological scars from a current snow dump are situated just north of the gravel pad and fire pit has likewise caused ground disturbance in the northwest corner of the project area.

A review of the Alaska Heritage Resources Survey (AHRs) on March 18, 2022, showed no cultural resources sites within or adjacent to the proposed project area. Several cultural resources surveys were conducted in the project area and vicinity from 2004 to 2011. No cultural resources were identified during previous surveys. However, the desktop review did identify one potential historic property, consisting of portions of an antenna farm associated with a former Anchorage Federal Communication Commission (FCC) secondary monitoring station, which intersects with a portion of the proposed project APE. The closest documented site to the project area is the Nike Point Site (TYO-00101) approximately one-quarter mile to the west, the footprint of which corresponds roughly to that of Kincaid Park. Nike Point Site has been determined eligible for listing on the NRHP, meaning the property is afforded protections under the NHPA. The site was determined eligible for its association with military activities in Alaska during the Cold War.

3.4.2 Environmental Consequences

Significance Thresholds

The FAA has not established significance a threshold for Historical, Architectural, Archaeological, and Cultural Resources. Factors to consider when making significance determination include a finding of *Adverse Effect* through the Section 106 process.

3.4.2.1 Direct and Indirect Impacts

No-Action

Under the No-Action alternative, none of the proposed project components would be constructed and no ground disturbing activities would occur. Although there are no documented cultural resources in the project area, under the No-Action alternative there is no chance of disturbing an undocumented cultural resource.

Proposed Action

The APE consists of those areas within the proposed construction disturbance footprint. The Proposed Action is unlikely to impact any significant historical, architectural, archaeological, or cultural resources. No such resources have been documented within or adjacent to the APE. Portions of the project area are previously disturbed. Moreover, the project area does not exhibit features such as lookout points, fish streams, or good tool stone that would increase the likelihood of encountering buried archaeological resources. The APE, therefore, has low probability for undiscovered cultural resources.

Although not within the APE, the Nike Point Site near the project area. Indirect impacts were considered for the Nike Point Site and dismissed because there will be no visual, auditory, or other impacts that may compromise the character or attributes for which the Nike Point Site is eligible for listing on the NRHP. Visual impacts are not expected because the Proposed Action will not be visible from the Nike Point Site (i.e., Kincaid Park) as discussed in Section 3.6 Visual Resources / Visual Character. Noise impacts are not expected to the Nike Point Site, because project noise will not exceed current noise conditions and impacts from ANC.

The FCC Secondary Monitoring Station was given two AHRS site numbers; one for the antenna array (TYO-00373) and one for the buildings (TYO-00374). A determination of eligibility for listing on the NRHP was conducted for both sites of the Anchorage FCC Secondary Monitoring Station (TYO-00373 and TYO-00374). The eligibility determinations found the antenna array (TYO-00373) to be not eligible for listing on the NRHP and the buildings (TYO-00374) to be possible eligible, pending further data collection. Because the buildings are not located within the project area and no direct impacts would be expected, a finding of *No Historic Properties Affected* was recommended for the Proposed Action.

A Findings Letter was sent to the State Historic Preservation Office (SHPO) on May 6, 2022, requesting a finding of *No Historic Properties Affected*. The SHPO responded with a concurrence letter agreeing to a finding of *No Historic Properties Affected* on May 12, 2022. Appendix C shows Section 106 documentation.

3.4.2.2 Cumulative Impacts

There are no direct or indirect impacts expected from the proposed project, therefore there is not measurable accumulation of impacts and a cumulative impact analysis does not apply.

3.5 Noise and Noise Compatible Land Use

Regulatory Context

Guidance and requirements for the assessment of aviation noise for compliance with NEPA are detailed in FAA Order 1050.1F. Per this guidance, noise exposure must be calculated using the FAA's primary noise metric for assessing the environmental impact of noise exposure, yearly DNL.

The compatibility of existing and planned land uses with proposed FAA actions is usually determined in relation to the level of aviation noise. Per Table 1 in Appendix A of 14 CFR Part 150, noise exposure levels of less than DNL 65 dB are considered compatible with residential and other land uses. Examination of noise levels below DNL 65 dB is only necessary if there is substantial noise impact within the DNL 65 dB contour.

3.5.1 Affected Environment

The Environmental Noise Impact Study considers noise impacts for the Airpark project area. The Airpark project area falls between the 60 and 65 contour sound levels, as depicted in the 2015 part 150 noise analysis published in the FAA-approved Ted Stevens Anchorage International Airport FAR Part 150 Noise Compatibility Study Update (Barnard Dunkelberg 2015; notice of approval can be found at 80 FR 73266). Figure 7 shows existing noise conditions in 2009, and Figure 8 shows predicted 2020 noise contours as modeled in the 2015 study. The Part 150 study forecasted 242,275 operations compared to an actual of 245,283 operations in 2020, and compared to an actual 277,121 operations in 2022.

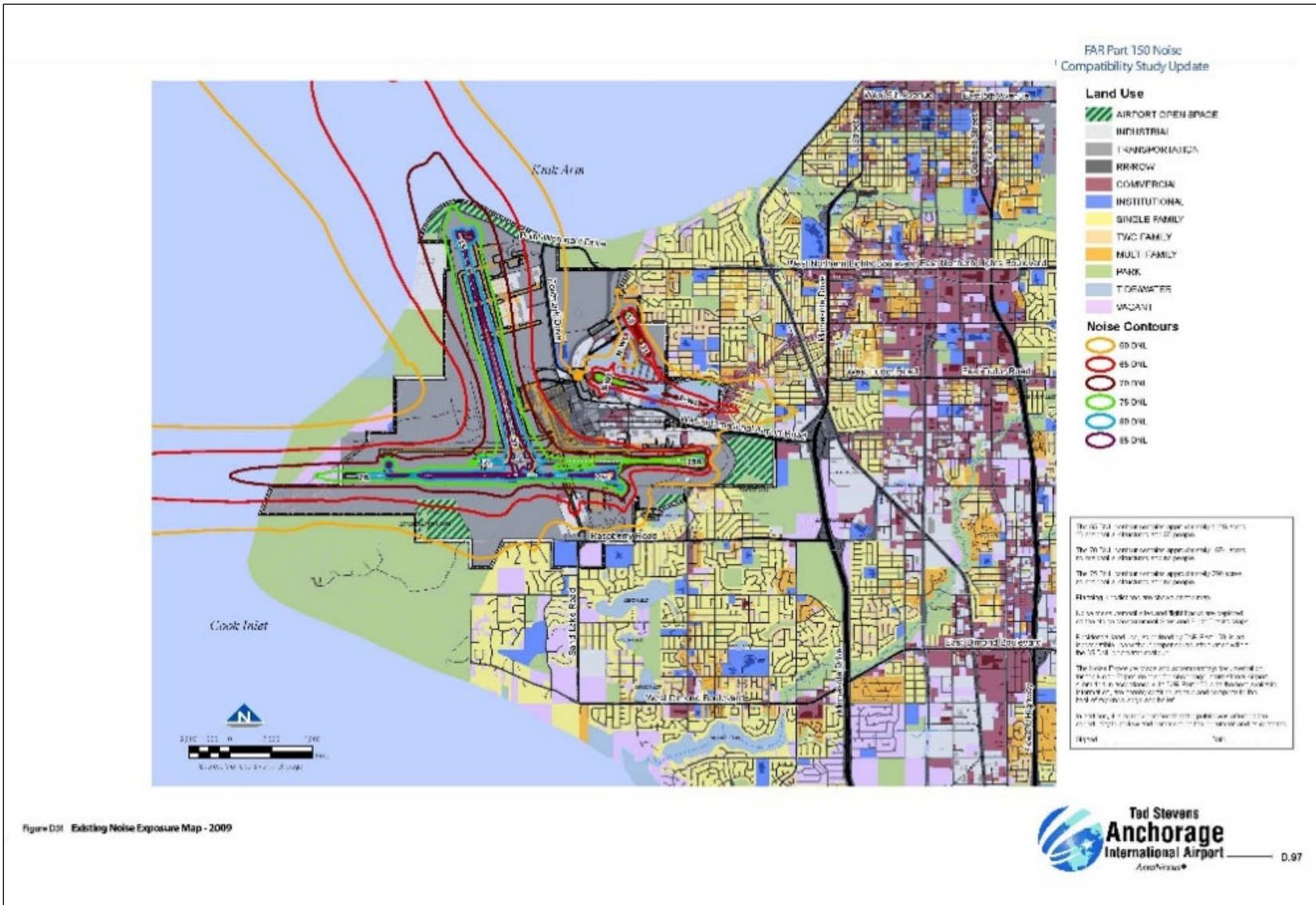


Figure 7: ANC Existing Noise Exposure Map, 2009

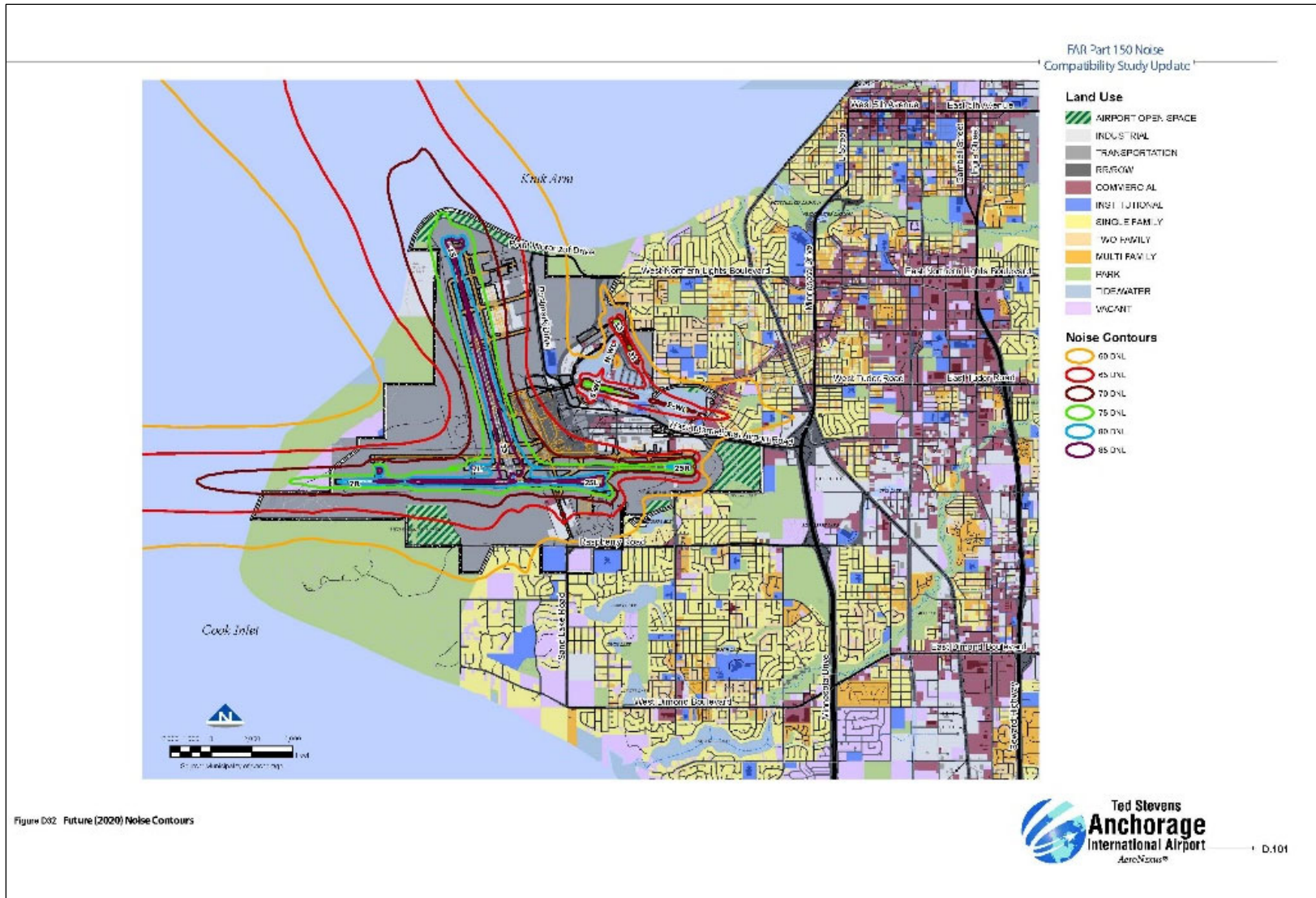


Figure 8: ANC Predicted Noise Conditions, 2020

FAA Order 1050.1F, Paragraph 14.4i requires the following information be disclosed for the current condition:

1. The number of people living or residences within each noise contour above DNL 65 dB, and
2. The location and number of noise sensitive uses (e.g., historic sites, schools, hospitals, nursing homes, certain recreation uses, and places of worship) exposed to DNL 65 dB or greater, and
3. Mitigation measures in effect or proposed and their relationship to the proposal.

Noise sensitive areas within Section 4(f) properties should receive special consideration if the value or purpose of the area can be attributed to a low noise environment. For these areas, land use compatibility may need to meet more stringent thresholds than the DNL 65dB level and the guidelines in FAA noise regulations (14 CFR 150).

The 2015 *Noise Compatibility Study* documented 20 housing units within the DNL 65 dB contour and predicted an increase to 35 housing units by 2020. All of these are located on the east end of Lake Hood, where there are frequent noise events (see Barnard Dunkelberg 2015: E.1-E.5). These residences are outside of the areas modeled for the proposed Project. There are no schools, places of worship, or nursing homes affected by current airport operations at ANC. The DNL 65 dB contour includes industrial and commercial sites as well as portions of parks and the Tony Knowles Coastal Trail on the north and west sides of the airport and the Sisson Loop trail on the west side. Parks and recreation areas within the 65 dB contour are the Coastal Trail along the shore, Point Woronzof Park, and Kincaid Park. In addition, a small portion of the Coastal Trail is included in the DNL 75 dB north and west of the runways ends. Short segments of the Sisson Loop also fall within the DNL 75 dB contour west of the airport (Figure 8, above).

Operations at ANC are predominantly over the water north and west of the airport, rather than over the eastern and southern areas where residential and other noise sensitive groups are located. During these normal operations there are no public schools, churches, nursing homes, hospitals, or libraries affected by noise levels exceeding DNL 65 dB at the ANC. Should conditions necessitate arrivals to or from the south or east, however, the noise contours extend beyond the documented and predicted annual average DNL (Figure 7 and Figure 8 Figure , above). Figure 9 and Figure 10 show single-day contours during wind events requiring east and south flows.

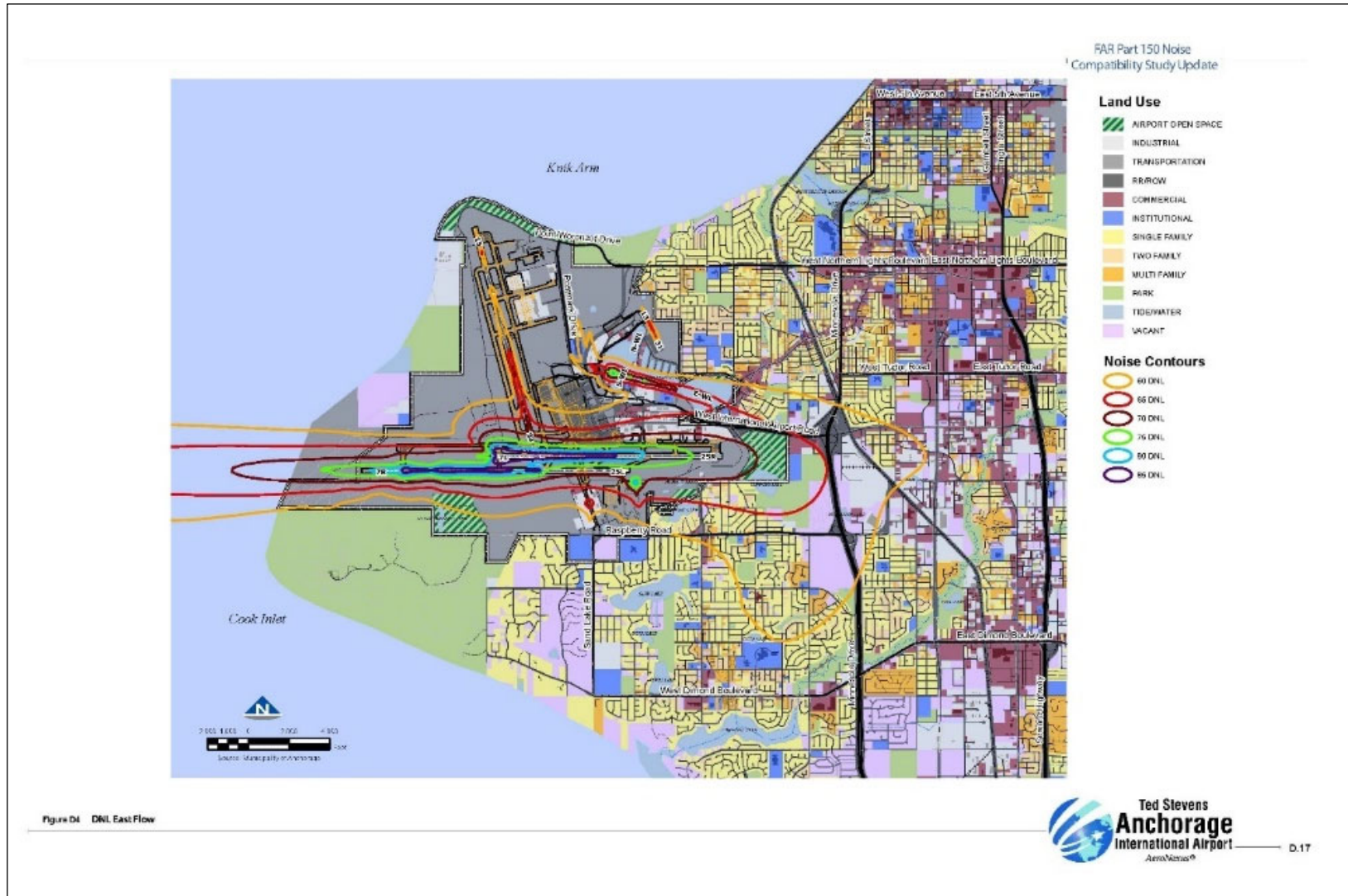


Figure 9: Single-Event Noise Contour During East Flow

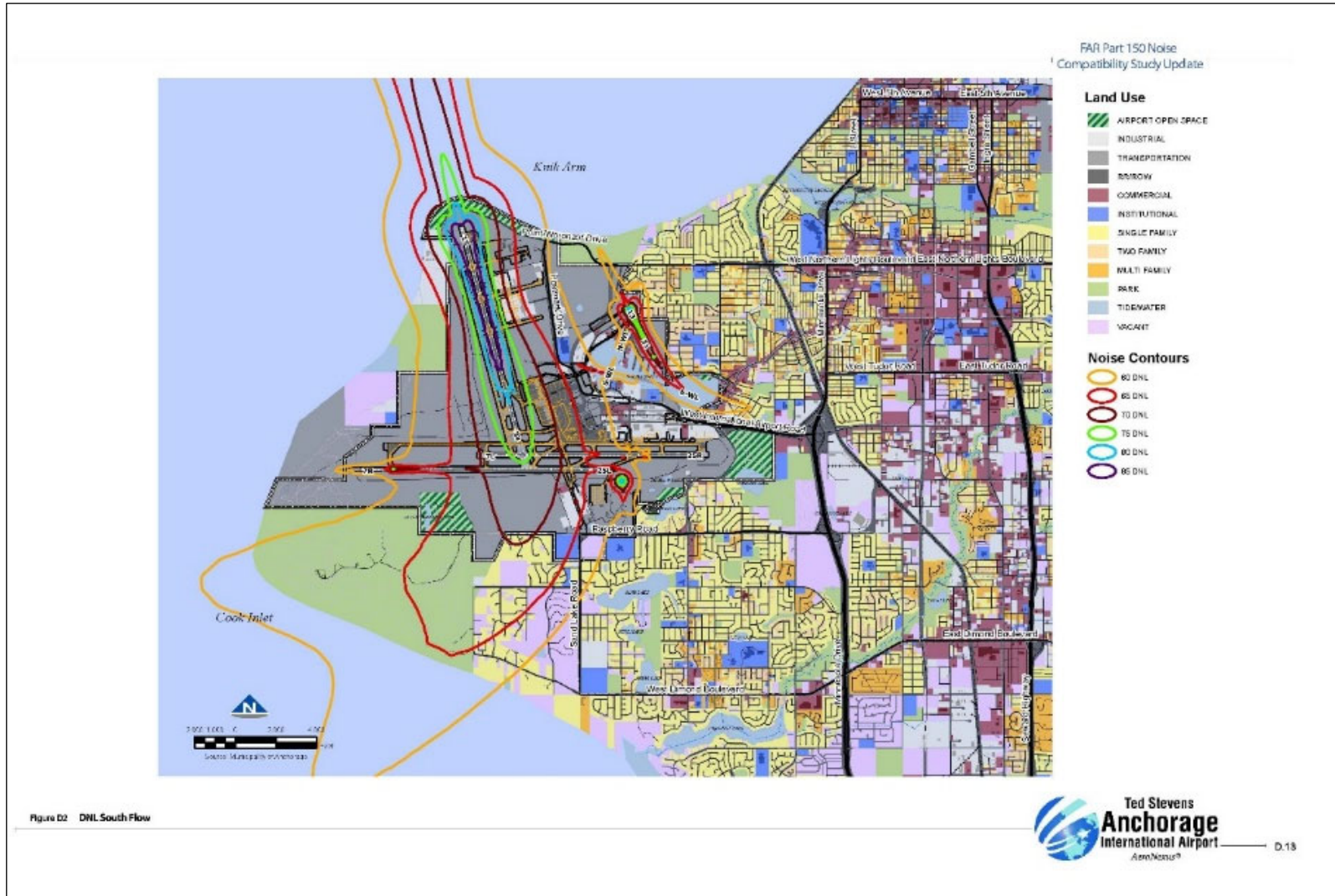


Figure 10: Single-Event Noise Contour During South Flow

Current noise conditions were modeled using real-time measurements taken in November 2021, and contour data taken from the 2015 Noise Compatibility Study. These data resulted in a predicted background noise and average existing DNL of 62 A-weighted decibel (dBA).

3.5.2 Environmental Consequences

Significance Thresholds

FAA Order 1050.1F establishes that noise impacts would be significant if the action would increase noise by DNL 1.5 dB or more for a noise-sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level or greater increase, when compared to the no action alternative for the same timeframe. For example, an increase from DNL 65.5 dB to 67 dB is considered a significant impact, as is an increase from DNL 63.5 dB to 65 dB.

3.5.2.1 Direct and Indirect Impacts

No-Action

Under the No-Action alternative, none of the proposed project components would be constructed, thus the noise exposure would remain consistent with present noise conditions.

Proposed Action

No permanent noise impacts are anticipated as a result of the proposed project. A noise analysis conducted for the Proposed Action found operation of the facility, including taxiing of multiple aircraft simultaneously, will not result in significant noise impacts (Appendix D). The DNL from Airpark operations, including both sound level and length of time spent taxiing, are predicted to be 53 dBA. The predicted noise level at the eastern entrance to Kincaid Park during similar operations is 53 dBA, quieter than the current South Airpark DNL of 62 dBA. As part of the analysis, the Project proposes to construct a 25-foot earthen berm to reduce noise impacts. The earthen berm will be landscaped with vegetation and trees at the top. Kincaid Park is closer to the east/west runway than it will be to the proposed project and regularly experiences more noise currently than the predicted noise for the project. Additionally, 400hz ground electric power supply will be installed at each hardstand, generally eliminating the need for aircraft to run Auxiliary Power Units (APUs) while parked. Without ground power, cargo aircraft parked at the project site would need to run APUs, which are noisy and powered by jet fuel, to supply power. NorthLink's property lease allows ANC to restrict the use of APUs at the proposed facility in order to limit noise and air emissions.

Temporary noise impacts may result from the operation of heavy equipment, the presence of construction crews, and other associated construction activities. Project construction will abide by the Anchorage Noise Control Ordinance (AMC 15.70). Thus, and for example, work on nights, weekends, or holidays would require a Noise Permit. As pointed out in other sections, the nearest noise receptor is approximately 700 feet away. There is no obvious impact to that neighborhood from construction noise not already falling within its existing DNL level or within the Leq level identified in the Anchorage Noise Control Ordinance. Construction of the Proposed Action would result in varying levels of noise generation subject to change based on the construction intensity and distance to a given noise receptor. Typical construction equipment noise ranges between 80 dB and 90 dB at 50 feet as set forth, for example, in the U.S.

Department of Transportation, Federal Highway Administration Construction Noise Handbook. The noise from construction equipment would propagate at a rate of 6 dB per doubling the distance. The closest construction equipment would be at 700 feet from the residential land uses to the south of the proposed project. At the distance of 700 feet (while recognizing that most construction will occur at distances further away), the construction noise would be reduced by 23 dB. Therefore, construction noise would not exceed 80 dB hourly Leq. as discussed in the Anchorage Noise Control Ordinance construction noise limitations section. Typically one of the loudest piece of construction equipment is a jack hammer. For a jack hammer in operation at the edge of the project study area that is closest to the noise sensitive land uses, noise attenuation could be calculated using the inverse square law for sound. The inverse square law demonstrates the inversely proportional relationship between source sound pressure and distance from the sounds source (-6 dB per doubling of distance). The FHWA Construction Noise Handbook indicates a jack hammer is estimated to be 85 dB at 50 feet away, so using the inverse law for sound at 700 feet, the noise from the jack hammer would be 62 dB (the existing neighborhood DNL—see Appendix D Environmental Impact Noise Impact Study). The FHWA Construction Noise Handbook also sets the Acoustical Usage Factor at 20% for the jackhammer, thus further reducing the noise level by 7 dBA. This noise level would not likely be perceptible over typical ambient noise levels of the Airport.

Even if the sound levels for construction triggered a requirement for a construction Noise Permit, the Municipality of Anchorage could place such conditions on the permit as deemed necessary or advisable by the Municipality, thus further addressing as appropriate the eventuality of temporary noise impacts. Abatement methods such as proper maintenance of construction equipment would help further reduce these impacts.

Construction of the Project will not require alteration of local vehicle traffic or air patterns, nor are long-term increases to traffic volume due to operations anticipated. Therefore, noise impacts related to such changes are not anticipated.

Figure 11 replaces noise contour diagrams used in the Draft and Final EA because a topography error existed in the original two diagrams. This revised Figure 11 shows models for aircraft taxiing noise with one, two, and three aircraft taxiing. The original and revised diagrams are consistent because they show (1) that the neighborhood is in the 54 DNL (Arithmetic Approach concludes a 53 dBA); and (2) that the project noise reaches the 54 DNL significantly before Kincaid Park. Kincaid Park is to the west of all diagrams in the 54 DNL.

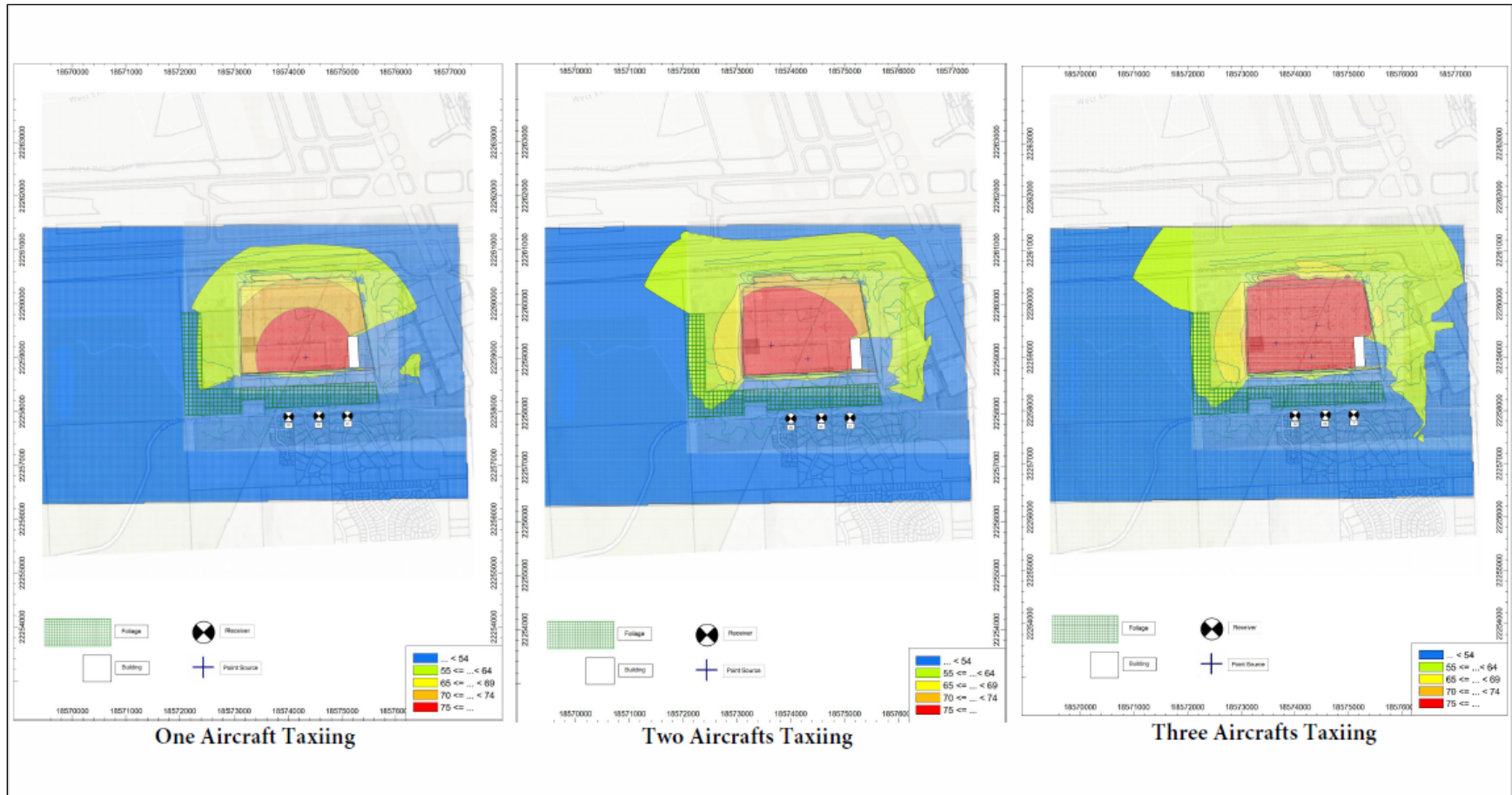


Figure 11: Noise Contours from Aircrafts Taxiing

3.5.2.2 Cumulative Impacts

Cumulative impacts from noise should address all current noise impacts of a similar nature at a particular location. The project noise impacts need to not ‘tip the scale’ to a significant impact. As shown in Figure 8, the residential neighborhood is within the DNL 60 dB contour for projected 2020 airport operations. The proposed project will not increase the dBs in the residential neighborhood and will not magnify the airport operation noise. The operations at the NorthLink Lease Lot will be quieter than average airport noise levels and will not magnify the current airport noise. There are no reasonably foreseeable actions that may occur in the future that would change this outcome.

3.6 Visual Resources / Visual Character

Regulatory Context – There are no federal special purpose laws or requirements specific to light emission and visual effects. Relevant special purpose laws include Section 106 of the NHPA and Section 4(f) of the U.S. Department of Transportation (DOT) Act; both laws require consideration of visual impacts to protected resources.

3.6.1 Affected Environment

Baseline conditions for visual resources and visual character near the Proposed Action include light emissions and aviation infrastructure from ANC directly north and east of the proposed project area. South of the project area is the two lane Raspberry Road with a separated multi-use pathway, followed by an additional vegetative buffer between the road and Sand Lake Neighborhood to the south. To the west, the visual characteristics are a wooded mixed forest.

The vegetative buffer between existing airport infrastructure and Raspberry Road and Kincaid Park is valued by community members and park patrons. The current vegetative buffer creates a natural visual setting along Raspberry Road beginning at approximately Sand Lake Road and continuing through the entrance to Kincaid Park, with one built environment disruption to the natural setting on the north side of the road across from Serenity Circle. A vegetative buffer exists on both the airport property side of Raspberry Road and the residential neighborhood side of the road.

The potentially affected human environment adjacent to the Proposed Action includes a residential area south of the project and Kincaid Park patrons who may be active approximately 1000 feet from the proposed project. Figure 5 in Section 3.2 shows the Kincaid Trail system in relation to the proposed project.

3.6.2 Environmental Consequences

Significance Thresholds –

The FAA has not established a significance threshold for light emissions or visual resources / character. Factors to consider include the extent to which the action would have the potential to:

- Create annoyance or interfere with normal activities from light emissions

- Affect the visual character of the area, including the importance, uniqueness, and aesthetic value of the affected visual resources
- Contrast with the visual resources and/or visual character in the study area
- Block or obstruct the views of visual resources, including whether these resources would still be viewable from other locations

3.6.2.1 *Direct and Indirect Impacts*

The sources of lighting for the Proposed Action include flood and spot luminaires on 35 to 60-foot poles; flush taxilane lighting; and security lighting for the cargo warehouse and parking lot. The Proposed Action is not expected to have light impacts that substantially alter the character of the area; the proposed project area is on airport property adjacent the current South Airpark aviation facilities with existing light poles and facility security lighting. Light emissions already exist in the area and the addition of the Proposed Action is not expected to interfere with normal activities. The proposed project is consistent with the land uses in the surrounding area. Project components such as the 60-foot lighting poles and the cargo terminal may be visible from the highest elevation homes in the neighborhood south of the project, however the new lighting sources are not expected to impact the daily activities of the residents of the adjacent neighborhood or patrons of Kincaid Park. The luminaires will be placed in a direction and at an angle that lights the infrastructure, not the surrounding area. Operations, including aircraft movements, and lighting impacts will largely be obscured to the residential neighborhood south of the project area by an approximately 25-foot-high barrier consisting of an earth berm topped with a vegetated buffer constructed, in part, to mitigate visual and noise impacts.

Vegetation clearing required for the proposed action will include the entire project area save for the portion of the project area south of the earth berm. The base of the berm is expected to be approximately 200 feet. South of the earth berm approximately 500 feet of vegetation will remain from the Proposed Action to Raspberry Road. The construction of cargo facilities is not expected to substantially change the character of the area because the vegetative buffer will remain on Raspberry Road in addition to the construction of an earth berm obscuring views of the facilities. Because of the 500 feet of vegetation and the 25-foot earth berm mitigation, the natural visual setting along Raspberry Road will not change. Portions of the Proposed Action, such as the 50 to 60-foot-tall cargo terminal and the 60-foot light poles may be visible to some residents at higher elevations in the adjacent neighborhood, however the cargo facilities will be consistent with the visual character of aviation infrastructure in the area. The project location is on airport property adjacent existing aviation facilities.

As described above in Section 3.2, the eastern portion of Kincaid Park including Little Campbell Lake is State of Alaska Airport Property. Kincaid Park as owned by the Municipality of Anchorage begins west of Little Campbell Lake separated from the proposed project by almost three-quarters of a mile of mixed forest. The following descriptions are regarding the area of Kincaid Park that is State of Alaska owned, but managed by the Municipality of Anchorage as a portion of Kincaid Park.

The nearest trail is west of an access road to Little Campbell Lake. A walking survey was conducted on April 6, 2022, to assess potential visual impacts to patrons on the eastern-most trail, nearest the Proposed Action. Photos were taken from high points along the trail aimed east toward the project area (Photos 1-4 in the following pages). The photos show that during winter conditions a trail patron approximately 5.5 feet tall cannot see beyond approximately 300 feet. Summer conditions would be expected to further limit the sight distance with increased foliage as a visual buffer. Because the proposed project is over 1,000 feet from Kincaid Park and further from patron resources such as trails, no visual impact to Kincaid Park is expected.

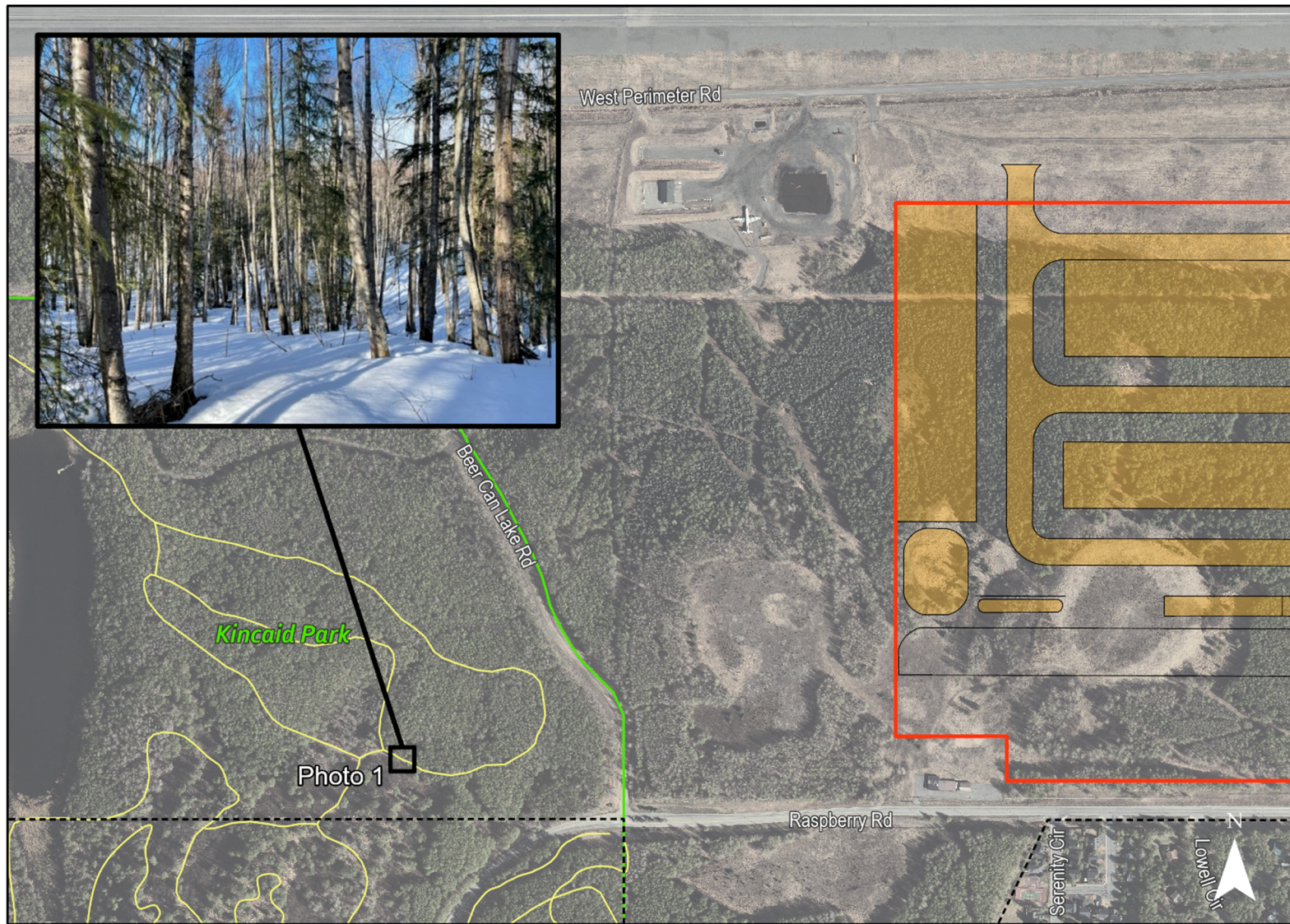


Photo 1: Visual Assessment from Nearby Trails, Location 1



Photo 2: Visual Assessment from Nearby Trails, Location 2

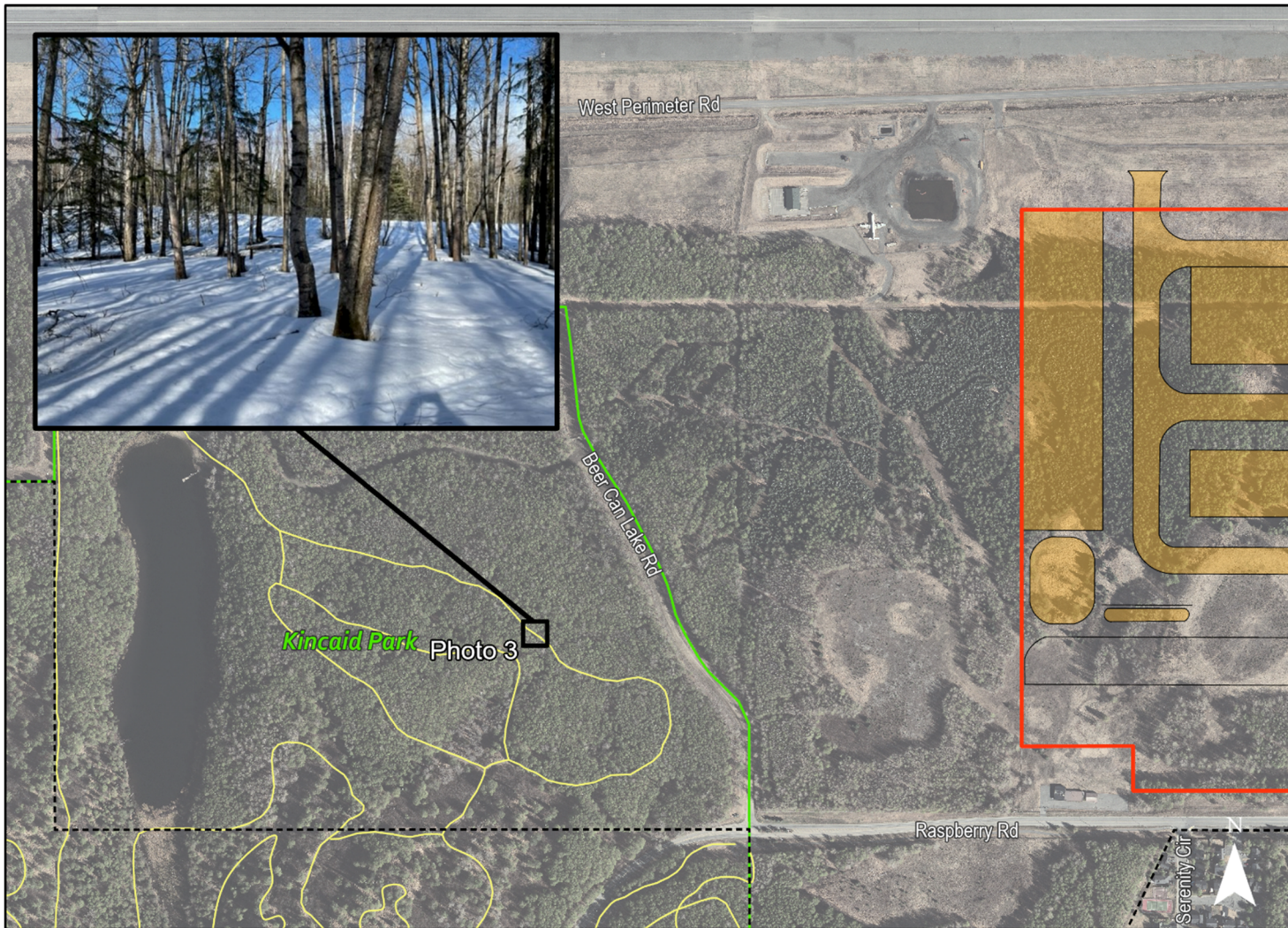


Photo 3: Visual Assessment from Nearby Trails, Location 3



Photo 4: Visual Assessment from Nearby Trails, Location 4

3.6.2.2 Cumulative Impacts

The cumulative impact of the proposed project is not expected to be significant because it is consistent with the existing visual character of airport property. Airport property in the area has existing aviation facilities, runways, taxiways, and terminals. The Proposed Action is consistent with the current visual resources in the surrounding area and will not create a significant interference with normal activities due to the maintenance of a vegetative buffer and the construction of a 25-foot earth berm.

3.7 Water Resources: Wetlands and Groundwater

Regulatory Context -

Wetlands: The Clean Water Act (CWA) establishes the basic structure for regulating the discharge of pollutants into waters of the United States, which includes wetlands. Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into waters of the United States. Section 401 of the CWA ensures that federal actions do not impair water quality.

Executive Order 11990 directs all federal agencies to avoid adverse impacts associated with the destruction or modification of wetlands, to the extent practicable. The stated purpose of this Executive Order is to “minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands.”

Groundwater: The Safe Drinking Water Act prohibits federal agencies from funding actions that would contaminate an EPA-designated sole source aquifer or its recharge area.

3.7.1 Affected Environment

3.7.1.1 Wetlands

A DOWL Professional Wetland Scientist conducted a desktop evaluation of wetlands in the project area and identified approximately 1.1 acres of wetlands based on topography, vegetation communities, and geomorphic position. Little Campbell Lake and adjacent wetlands are within 0.6 mile of the study area, and Sullivan Pond is within 0.5 mile of the study area. Three disturbed areas were discovered during vegetation mapping, including two fill pads and an airport snow dump with non-natural hydrologic conditions contributing to a low area with no connection to waters of the U.S. Three site visits were completed to delineate the project area for previously undocumented wetlands. The site visits were completed by DOWL professional wetland scientists and the U.S. Army Corps of Engineers (USACE). The site visits resulted in identification of four discrete wetlands totaling 1.21 acres within the project boundaries (Figure 12). Table 4 shows the acreage of wetlands by Cowardin type and the percent of the project area.

An Approved Jurisdictional Determination was requested from the USACE in July 2022 to determine if wetlands mapped within the study area are navigable waters, interstate waters, part of a tributary system, adjacent wetlands, or impoundments, and therefore subject to Section 404 of the CWA. An Approved Jurisdictional Determination was received from the USACE on September 7, 2022, stating that the project area contains wetlands which are not a water of the U.S. under USACE regulatory jurisdiction and that a permit is not required from the Department of the Army for any activities which may occur in the project area (Appendix E).

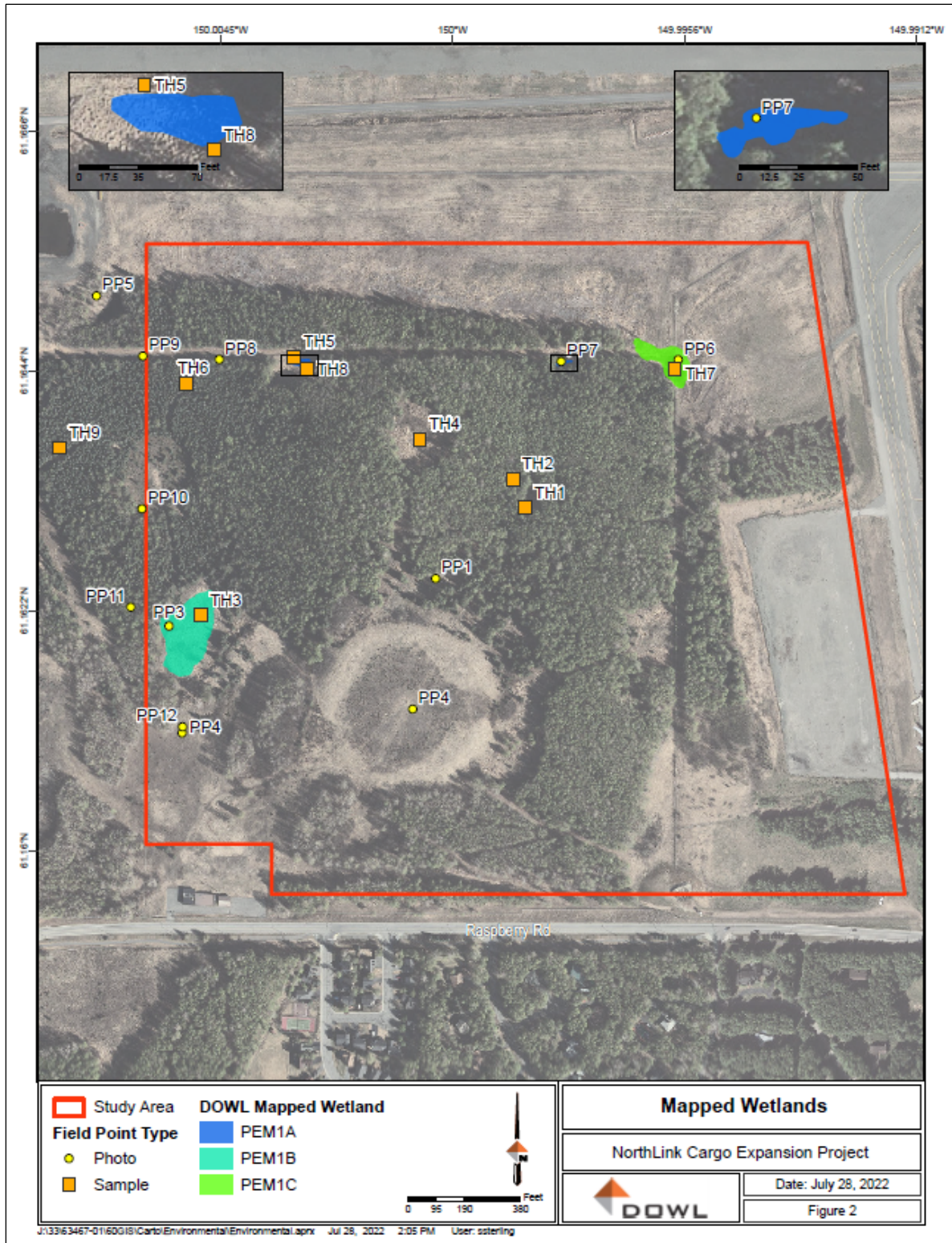


Figure 12: Wetlands within the Project Area

Table 4: National Wetlands Inventory Acres in the Study Areas by Cowardin Classification

Cowardin Classification	
PEM1A	0.05 (0.01)
PEM1B	0.82 (0.68)
PEM1B	0.34 (0.28)
Total	1.21 (1.0)

3.7.1.2 Groundwater

Limited published data exists regarding groundwater within the project area. A search of Environmental Protection Agency’s (EPA) sole source aquifers indicates there are no such resources in Alaska (EPA, 2022). No private drinking water wells are located within the project area, and the project area is not located within a drinking water protection area (ADEC, 2022). In the project vicinity, groundwater flows are best estimated west-northwest, from the Chugach Mountains towards the Cook Inlet and Knik Arm (USGS, 1995). Geotechnical drilling conducted as a part of the proposed project showed that groundwater was not observed at any of the boreholes at the time of drilling; boreholes were drilled to different depths with a maximum of 50.6 feet and a minimum of 37.1 feet below ground surface (CRW 2022, Appendix F). Groundwater was identified in three of eight boreholes after they rested for more than 24 hours at 42 to 46 feet below ground surface. Four boreholes never showed groundwater even after over 24 hours of rest. Information from Alaska Department of Natural Resources Well Log Tracking System has limited information on the depth of static water. The nearest well (Log ID 19135) with available information is approximately 700 feet from the NorthLink Lease Lot and shows groundwater at 113 feet below ground surface.

3.7.2 Environmental Consequences

3.7.2.1 Wetlands

Significance Thresholds

FAA Order 1050.1F determines significance based on whether the Proposed Action would:

1. Adversely affect a wetland’s function to protect the quality or quantity of municipal water supplies, including surface waters and sole source and other aquifers.
2. Substantially alter the hydrology needed to sustain the affected wetland system’s values and functions or those of a wetland to which it is connected.
3. Substantially reduce the affected wetland’s ability to retain floodwaters or storm runoff, thereby threatening public health, safety, or welfare (the term welfare includes cultural, recreational, and scientific resources or property important to the public).
4. Adversely affect the maintenance of natural systems supporting wildlife and fish habitat or economically important timber, food, or fiber resources of the affected or surrounding wetlands.
5. Promote development of secondary activities or services that would cause the circumstances listed above to occur.

3.7.2.1.1 Direct and Indirect Impacts

No-Action

The No-Action alternative would not require modification to, or placement of fill within wetlands, as no construction would take place.

Proposed Action

The wetland habitat present within the project boundaries are not subject to any regulatory oversight as they do not meet the definition of waters of the US, per the Clean Water Act. No permit is needed to place fill or construct within their boundaries. The four discrete wetlands are not of sufficient size to effectively provide essential ecological services such as groundwater recharge, flood attenuation, or wildlife habitat.

3.7.2.1.2 Cumulative Impacts

The project will not impact regulatory wetlands. Cumulative impacts are not expected because the four discrete wetlands do not effectively provide ecological services.

3.7.2.2 Groundwater

Significance Thresholds:

FAA Order 1050.1F determines significance based on whether the Proposed Action would:

1. Exceed groundwater quality standards established by Federal, state, local, and tribal regulatory agencies.
2. Contaminate an aquifer used for public water supply such that public health may be adversely affected.

3.7.2.2.1 Direct and Indirect Impacts

No-Action

No direct or indirect impacts to groundwater would be anticipated under the No-Action alternative as the project area would not be developed, and current groundwater conditions would be perpetuated.

Proposed Action

The Proposed Action is not anticipated to encounter groundwater during excavation and construction of the hardstands and taxiways; direct impacts to groundwater are not expected. Geotechnical investigations identified static water in the project area at minimum 42 feet below the ground surface (CRW 2022, Appendix F). Excavation is not expected to reach groundwater due to the relatively shallow nature of excavation activities. Based on geotechnical recommendations, excavation may reach a maximum of 25 feet below finished grade to dig out woody fill debris at that depth in the northeast portion of the project area. However, excavation to that depth may be avoided by the contractor as it may not be necessary. Light poles reach the lowest depth at 45 feet below finished grade, however the poles will be driven into the ground and no excavation will be required for the light poles. Excavation will not reach the

groundwater depth of 42 feet. The construction of hardstands, taxilanes, and aprons would increase the amount of impervious surfaces within the project area, resulting in reduced groundwater recharge. No change to aquifer content is expected. Overall, the Proposed Action would have indirect negligible, long-term impacts on groundwater due to the addition of an impervious surface. The proposed project would not contaminate an EPA-designated sole source aquifer or its recharge area protected by the Safe Drinking Water Act as none occur in Alaska.

3.7.2.2.2 Cumulative Impacts

The direct and indirect impacts are expected to be negligible, therefore there is not measurable accumulation of impacts and a cumulative impact analysis does not apply.

4.0 ENVIRONMENTAL COMMITMENTS

The Proposed Action will adhere to all federal, state, and local laws. In addition, construction of the Proposed Action will include measures to avoid, minimize, and mitigate potential environmental impacts through standard operating procedures and best management practices. The following are proposed environmental commitments that arose from coordination with regulatory agencies. In addition to the environmental commitments the proposed project will adhere to all permit stipulations that may arise during the permitting process.

Table 5: Environmental Commitments

Hazardous Materials	No soils will be excavated in the northwest portion of the project area nearest the active contaminated site AIA Fire Training Pit (ADEC Hazard ID 414). If excavation is required in the northwest corner of the project area, ADEC will be consulted.
Hazardous Material	Immediate suspension of construction and a contaminated materials management plan (CMMP), approved by ADEC, including a sampling plan, will be required in the event contaminated materials are found above ADEC cleanup levels in the area to be disturbed during construction.
Hazardous Material	Construction Work Requirements: Prior to ground disturbance of the site, sponsor and lease holder must coordinate with ADEC to ensure no interference with ADEC's future sampling efforts as ADEC contractors plan to take additional subsurface samples in the NorthLink lease area.
Hazardous Material	Any changes to the project pursuant to a final CMMP, if required, must be verified for consistency with the analysis in the final EA.
Wetlands	Compensatory mitigation will be provided for unavoidable impacts to jurisdictional wetlands.
Groundwater	The Contractor will not excavate to known groundwater levels. Groundwater will not be impacted by the proposed project.
Historic, Architectural, Archaeological, and Cultural Resources	If cultural, archaeological, or historic resources are discovered during project construction, all work will proceed in the Inadvertent Discovery Plan, on file with the SHPO.

5.0 COMMENTS AND COORDINATION

Regulatory Context

The intent of public involvement is to inform the public and solicit comments. CEQ defines the requirements for public involvement in NEPA under 40 CFR § 1506.6. In summary, under CEQ guidelines agencies shall make diligent efforts to involve the public. Additionally, FAA requirements for public involvement while completing an EA are discussed in FAA Order 1050.1F. Paragraph 6-2.2(b) of the Order states that the FAA or applicant must involve the public, to the extent practicable, in preparing EAs. Under FAA Order 1050.1F, public involvement is determined on a case-by-case basis, and scoping (a method for soliciting comments) is optional.

Agency involvement for EAs is discussed in paragraph 6-2.2(d) and recommends contacting appropriate entities to obtain information concerning potential environmental impacts.

5.1 Public Involvement

NorthLink Aviation, and its predecessor IC Alaska Airport LLC, began public outreach in December 2020 to inform the public about proposed developments to the NorthLink Lease Lot. Public involvement included regular meetings with the local community council, a public meeting, posting fliers near the project area informing the public and soliciting comments, newspaper advertisements, public notice on the FCC website, email, a project website, and publishing scientific reports for review and comment. The Sand Lake Community Council (SLCC) participated in more public outreach opportunities than other stakeholders. The SLCC adopted a non-binding resolution on December 14, 2020, asking that the developers of the Proposed Action work closely with a committee consisting of members of the Sand Lake Community on the development, including ensuring that the design of the proposed project include a setback from Raspberry Road, a berm to dampen noise and the visual impact of the project, and utilize an existing road (South Airpark) to access the terminal. In response to this non-binding resolution, NorthLink Aviation has coordinated closely with a sub-committee of the SLCC to address concerns and provide background on specific elements of the Proposed Action, including the NEPA process. Although not formal outreach, some community organizations, such as the Nordic Ski Association of Anchorage and Anchorage Amateur Radio Club, have informed and/or sought comments from their membership. Public involvement materials can be found in Appendix G. Outreach included the following activities and materials:

- Notice of Intent to Prepare an Environmental Assessment and Solicit Comments notifications:
 - FCC Informational Alert, 3/9/22
 - Anchorage Daily News, 2/16/22
 - Fliers posted
 - Kaladi Brothers, 6861 Jewel Lake Road
 - Tastee Freeze (three signs), 3901Raspberry Road
 - Piper's Bar – Coast Inn at Lake Hood, 3450 Aviation Ave
 - Lakefront Hotel, 4800 Spenard Road

- Writer's Block Café, 3956 Spenard Road
- Carr's at Jewel Lake
- Jewel Lake Bowl strip mall
- Notice sent by email to SLCC
- Project Website <https://www.northlinkaviation.com/project>
 - Noise Study published
 - Stormwater Pollution Prevention Plan published
 - PFAS Study published (surface testing)
 - PFAS Study published (subsurface testing)
 - Phase 1 ESA published
 - Project Area Google Earth File published
 - Current Draft Project Site Layout published
 - Draft Environmental Assessment
- SLCC Sub-committee Meetings (Virtual and in person) (summaries in Appendix G)
 - December 8, 2021 (In person and virtual)
 - December 14, 2021 (Virtual)
 - January 5, 2022 (Virtual)
 - January 18, 2022 (Virtual)
 - February 2, 2022 (Virtual)
 - February 7, 2022 (Virtual)
 - March 9, 2022 (Virtual)
 - September 12, 2022 (In person)
 - April 10, 2023 (In person and virtual)
- Email updates sent to SLCC sub-committee
- Notice of Availability of the Draft EA
 - Anchorage Daily News, May 27, 2022
 - Emails to interested parties
- Public open house to receive comments on the Draft EA
 - Emails to interested parties, May 19, 2022
 - Postcards sent to over 500 residents in the vicinity of the project, May 23, 2022
 - Open house held at the Lakefront Hotel conference room on June 2, 2022, from 5:00pm to 7:30pm
- Two news interviews on local TV news station
- Notice of Availability of the Final EA and Draft FONSI/ROD

- State of Alaska Online Public Notice, April 28, 2023
- Anchorage Daily News, April 28, 2023
- Postcards sent to over 500 residents in the vicinity of the project, April 30, 2023
- Emails to interested parties, April 26, 2023 and April 28, 2023
- Notice of Public Meeting on the Final EA and Draft FONSI/ROD
 - Emails to interested parties, May 3, 2023 and May 4, 2023
 - Postcards sent to over 500 residents in the vicinity of the project, May 5, 2023
 - Anchorage Daily News, May 7, 14, 21, and 28, 2023
 - State of Alaska Online Public Notice, May 9, 2023

Public Comments

During the Notice of Intent to prepare and Environmental Assessment comment period February 16 to March 31, 2022, NorthLink primarily received comments via email. During the Notice of Availability of the Draft EA (Draft EA comment period) comments were primarily received via email and a few were received in the comment box at the Open House conducted June 2, 2022. The substantive comments were documented into a comment log, along with the responses where applicable (Appendix G). The following is a summary of the comments received by the public organized by common topic:

Visual Resources

Several neighboring residences have requested that efforts be made to reduce impacts to visual resources. These include a berm of sufficient height such that the view from Raspberry Road or the neighboring community to the south are not affected. Several comments also requested that the berm include appropriate landscaping. Concerns about light emissions were also received regarding impacts to the adjacent neighborhood.

Socioeconomic

Residents of the Sand Lake neighborhood voiced concerns regarding impacts to their property values resulting from the proposed project. Concerns included visual and noise impacts creating fewer desirable conditions and impacts to resale value. One commenter requested an updated job development analysis for the project. One commenter noted that the EA did not address potential impacts to other aviation facilities in the South Airpark and noted potential safety and economic risks; the individual noted that it may be risky to mix large and small aircrafts at this location.

Wildlife

Commenters noted that they frequently see wildlife on airport property and at Kincaid Park. Commenters expressed concern about how the project would impact wildlife in the vicinity of the proposed project. Questions were raised as to whether there are any endangered species that may be impacted by the project and whether the proposed project would cut down trees with bird nests. One commenter noted that Kincaid is where many tourists are directed to go to view wildlife in Anchorage and the proposed project may impact wildlife viewing.

Noise

Concerns regarding noise are related to the size of the proposed berm in relation to the elevation of the homes to the south or deficiencies in the noise assessment. For the berm, the

concern is that it is not sufficiently high enough to deflect the sound from reaching homes at a higher elevation to the south. For the noise assessment a concern was stated that the study which was used for modeling was based on aircraft taxiing at a constant speed for 200 meters on a taxiway, not taxiing in and out of parking spots and ramps which requires much more power. Additional noise concerns were stated for impacts to Kincaid Park and disruption to recreational opportunities. One commenter noted how noise pollution can lead to serious health outcomes. One commenter suggested that a 24 to 48 hour noise monitoring study in the middle of the UPS/FedEx cargo ramp area at ANC would be beneficial in determining the maximum dB level that might occur on the proposed NorthLink ramp. A couple of commenters noted that FAA is currently reviewing noise impacts and annoyance, and that thresholds may change in the future.

Public Notice

Some commenters expressed a desire to see more efforts for public notice beyond the Anchorage Daily News. Specifically, it was requested that mailers and flyers also be posted in public places in the project vicinity. Other requests included specifying the area code on the phone number listed as well as a graphic of the proposed project design. Additionally, another request includes extending the input period to include State of Alaska agencies. One commenter requested to view three-dimensional renders of the site plan as well as a tour of the airport. They also noted it would be beneficial to have one point of contact for questions rather than visiting the website. Many commenters requested an extension of the Draft EA comment period.

Contamination and Health

Potential impacts to groundwater and the use of products containing PFAS were of concern to several commenters. Concerns regarding groundwater quality were associated with both the construction and operation of the proposed project. Additional comments noted that several homes were left out of the study and recommends the additional drinking wells be addressed in the EA. Another comment includes the sampling and testing inefficiencies. Concerns like this is leading one commenter to distrust NorthLink. Additional concern was stated regarding increase in diesel fuel particulates falling on homes in the neighborhood to the south. One commenter is interested in knowing more on flight patterns and frequency regarding diesel fuel particulates. Concerns regarding recreationalists and athletes' health using Kincaid Park with increased jet exhaust. The primary concern among commenters was that the proposed project would contaminate groundwater with PFAS which would subsequently contaminate the local well water with PFAS. Commenters requested that the project pay to have their homes connected to city water. Many commenters noted that status of the AIA Fire Training Pit (ADEC Hazard ID 414) was changed from cleanup complete to active due to the identification of PFAS at the contaminated site.

Regulatory Process

Commenters stated that they believed the proposed project would have a significant impact on them and that an Environmental Impact Statement should be required. Many commenters requested an extension of the 30-day comment period for the Draft EA. Some commenters requested a second public meeting. Another commenter noted that local, state, and federal standards are 50 years old and may no longer be sufficient to address impacts.

Construction-Related Impacts

Impacts associated with the construction phasing of the project were of concern to one commenter. Specifically, the location of the temporary access road to the project area and

associated impacts as a result. The primary issues identified with the temporary road include safety due to construction vehicles on Raspberry Road, construction-related noise, mud on Raspberry Road, and clear-cutting any trees to build the temporary access road. Several concerns were raised by commenters about wildlife, wetland, and impacts from storm water.

Traffic

Concerns regarding traffic generally related to the potential increase in traffic on Raspberry Road past Sand Lake Road raising safety issues. Some commenters are concerned this will impact the recreational attraction of Kincaid Park. Concerns were stated about increased traffic during construction and potential human/vehicle conflicts; a recommendation to work with the State of Alaska to ensure proper road striping was received.

Early Work

Concerns regarding how proposed early work, such as clearing and material transport, complies with the environmental process. Several commenters noted concern over clear cutting trees before the NEPA review was complete. Additional comments expressed concern that the Section 106 process and wetlands needs attention in the EA.

5.2 Agency Involvement

Agency scoping was conducted with agencies that may have jurisdictional resources within or near the project area. Scoping materials including a background letter and a preliminary environmental research report were sent to agencies on February 17, 2022 (Appendix H). Following the Draft EA, agencies provided comment during the comment period. The following table shows the agencies contacted and the summary of the responses received.

Table 6: Agency Responses to Scoping

Agency	Summary Response to Scoping
Alaska Department of Environmental Conservation, Contaminated Sites Program	<p>3/31/22 – AIA Fire Training Pit site is being re-opened due to presence of PFAS. Coordinate testing and remediation with ADEC</p> <p>4/12/22 – Coordinate with ADEC regarding a soil management plan prior to excavation</p> <p>6/3/22 – No further action required unless excavation near Fire Training Pit is necessary.</p> <p>6/24/22 – DEC requested an extension of the review period to allow for site characterization and delineation of groundwater PFAS contamination from sites outside the project area</p> <p>2/23/23 – DEC indicated construction is authorized as long as ground disturbing activities are coordinated with DEC so as not to impede further planned testing. DEC required notification is contaminated materials are encountered.</p> <p>4/11/2023 – DEC responded to a letter from ANC requesting clarification. DEC stated that the sampling planned by DEC will provide additional information about groundwater movement and contamination at AIA, but results are not anticipated to impact the planned construction. The NorthLink Lease Lot was previously sampled and found PFAS did not exceed DEC cleanup levels in soil to a depth expected to be encountered during construction.</p> <p>7/17/2023 – DEC has no objection to NorthLink proceeding to construction. Request to coordinate with DEC on schedule.</p>
Alaska Department of Natural Resources, State Historic Preservation Office	<p>2/18/22 – Review has begun</p> <p>3/11/22 – Recommend data-gap analysis; survey may require permit; office does not have any anticipated concerns</p> <p>5/12/22 – Concurrence received of No Historic Properties Affected</p>
ANC	<p>6/21/22 – Comments received from ANC on the Draft EA</p> <p>6/22/22 – Meeting held at ANC to discuss and address comments</p>
Municipality of Anchorage, Department of Parks and Recreation	<p>Initial Scoping – No Response</p> <p>6/24/22 – concerns regarding potential impacts of the development and operation of the proposed facility on park users</p>
U.S. Army Corps of Engineers, Regulatory Division	<p>3/3/22 – Potential wetlands onsite, recommend a jurisdictional determination</p> <p>9/7/22 – Jurisdictional Determination received</p>

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Tenor Engineering Group	-	Noise Analysis
ChemTrack	-	PFAS Investigation, Phase 1 ESA

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