

Draft
Environmental Assessment for Proposed
Airport Traffic Control Tower/
Terminal Radar Approach Control Facility Replacement

Fairbanks International Airport
Fairbanks, Alaska
Contract Number 697DCK-24-P-00082

Prepared by:



Federal Aviation Administration
Air Traffic Organization/Engineering Services Western Service Area
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COVER PAGE

Proposed Action: The Federal Aviation Administration (FAA) proposes to construct a new Airport Traffic Control Tower (ATCT) and Terminal Radar Approach Control Facility (TRACON) and demolish the existing ATCT/TRACON at Fairbanks International Airport (FAI) in Fairbanks, Alaska. The selected site would include the new ATCT/TRACON building and a paved parking lot as well as room for a cleared and filled construction laydown area if needed. New underground utility lines would be installed to connect the building with existing FAA facilities.

Type of Statement: Draft Environmental Assessment

Lead Agency: FAA

Cooperating Agencies: None

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Abstract: The existing ATCT/TRACON has several design inadequacies and FAA standard deficiencies, resulting in line-of-sight obstructions and visibility issues. Additionally, the facility lacks sufficient space to meet Air Traffic Control mission requirements. The new ATCT would be taller and larger to accommodate a more favorable layout and controller positioning to support facility operations. Of the eight siting alternatives evaluated, only the Preferred Alternative (Site 1) meets FAA Order 6480.4B siting criteria and real property needs. Construction of the new ATCT/TRACON is anticipated to begin in 2027 and conclude in 2032. The alternative to the Proposed Action is the No Action Alternative.

This environmental assessment becomes a federal document when evaluated, signed, and dated by the responsible FAA official.

[FINAL TO BE SIGNED]

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1.0 INTRODUCTION

The Federal Aviation Administration (FAA) has established a process to ensure compliance with the provisions of the National Environmental Policy Act (NEPA) through FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* (FAA 2015).¹ FAA has prepared this environmental assessment (EA) for the proposed replacement of the Fairbanks International Airport (FAI) Airport Traffic Control Tower (ATCT) and associated Terminal Radar Approach Control Facility (TRACON) in accordance with FAA Order 1050.1F², the Fiscal Responsibility Act of 2023, Executive Order (EO) 14173, *Ending Illegal Discrimination and Restoring Merit-Based Opportunity*, EO 14154, *Unleashing American Energy*, and the U.S. Supreme Court's decision in *Seven County Infrastructure Coalition v. Eagle County*, 605 U.S. 168 (2025). FAA Order 1050.1F, Paragraph 3-1.2.b(6) states that establishment or relocation of facilities such as ATCTs normally requires an EA. FAA is the lead federal agency for the Proposed Action.

For projects requiring a major federal action, such as funding or approval, an evaluation of the projects' environmental impacts must be prepared pursuant to the requirements under NEPA of 1969 (42 United States Code [USC] § 4321, Congressional Declaration of Purpose). An EA is a concise document used to fulfill this requirement. The purpose of an EA under NEPA is to provide sufficient evidence and analysis for determining whether to prepare a Finding of No Significant Impact (FONSI) or an Environmental Impact Statement (EIS) or for a project. An EA must discuss the purpose of and need for the Proposed Action and alternatives, as well as their environmental impacts.

FAI is a public use airport, occupying approximately 3,550 acres in Fairbanks, Alaska. FAI has two asphalt runways, one gravel landing strip for wheeled aircraft in summer and ski-equipped aircraft in winter, and one water lane locally known as the float pond. FAI is owned by the State of Alaska and administered by the Alaska Department of Transportation and Public Facilities (ADOT&PF). It is the state's second-busiest airport after Ted Stevens Anchorage International Airport (ANC) in Anchorage, Alaska, and the regional link to interior Alaska communities. FAI is served by three major airlines and five additional passenger carriers and is often used as an alternate airport when the forecasted weather is below landing minimums at the destination airport. FAI facilitates regularly scheduled passenger air service to interior Alaska

¹ After initiation of this EA, FAA revised its NEPA guidance, based on regulatory changes, EOs, and new NEPA case law. These revisions include the elimination of climate, environmental justice, and cumulative impacts analyses. In addition, the Council on Environmental Quality (CEQ) revoked its regulations (40 Code of Federal Regulations [CFR] § 1500-1508) implementing NEPA in response to EO 14154, *Unleashing American Energy*. Exceptions in the Draft EA include the removal of the environmental justice analysis pursuant to the 21 January 2025 EO 14173, *Ending Illegal Discrimination and Restoring Merit-Based Opportunity*. Based on the new EO and the revocation of the CEQ regulations, it is no longer a legal requirement or the policy of the federal government to conduct environmental justice analyses. In addition, the CEQ regulations historically had required the consideration of cumulative impacts. In 2023, Congress passed the Fiscal Responsibility Act, which directed agencies to consider "the reasonably foreseeable environmental effects of proposed agency actions" (42 USC § 4332(2)(C)). In addition, the U.S. Supreme Court issued the *Seven County Infrastructure Coalition v. Eagle County* ruling on 29 May 2025 (605 U.S. 975 [2025]). The *Seven County* ruling reinforced the limited scope of NEPA reviews, holding that NEPA does not require an agency to consider environmental effects of other activities and projects "separate in time or place" from the proposed action. As a result of these actions, it is no longer a legal requirement or the policy of the federal government to conduct cumulative impact analyses. Therefore, this EA does not analyze cumulative impacts.

² On 30 June 2025, FAA Order 1050.1G was issued, superseding Order 1050.1F. Projects that commenced after 3 July 2025 must comply with FAA Order 1050.1G, while projects already underway on that date may follow FAA Order 1050.1F. This document applies the standards of Order 1050.1F because it was initiated prior to that date.

villages, the North Slope, Anchorage, and the contiguous United States. This is especially important for remote villages with no road network that can only be accessed via aircraft (or boat during certain times of year). Together, FAI and ANC compose the Alaska International Airport System. As such, FAI plays a critical role in supporting international cargo technical stops between Asia and North America to refuel, service, and perform other maintenance. FAI also serves as a hub of General Aviation (GA) activity for the Fairbanks Area (ADOT&PF 2014).

An ATCT and associated TRACON is an airport observation facility that allows air traffic controllers to visually and electronically monitor aircraft take-offs, landings, and ground traffic within the airport to confirm proper separation of aircraft as they approach, depart, or pass through airspace controlled by the ATCT/TRACON and enhance the safety of aircraft operations at and in the vicinity of the airport.

The existing ATCT has several design inadequacies and FAA standard deficiencies and the facility lacks sufficient space to meet Air Traffic Control mission requirements. The Proposed Action would replace the ATCT/TRACON with an adequately sized, code compliant facility that meets the space, height, cab orientation, operational (i.e., staffing and equipment), and safety requirements specified in FAA Order JO 6480.7E, *Airport Traffic Control (ATCT) and Terminal Radar Approach Control (TRACON) Design Policy* (FAA 2009), FAA Order 6480.4B, *Airport Traffic Control Tower Siting Process* (FAA 2018a), and 14 CFR § 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*.

2.0 PROPOSED FEDERAL ACTION

FAA proposes to construct a new ATCT/TRACON and demolish the existing ATCT/TRACON at FAI. In addition to the construction and operation of the replacement ATCT/TRACON, the Proposed Action would include connecting new underground utilities and communications to the new ATCT/TRACON site; acquisition of a new lease with the FAI airport to construct the new ATCT/TRACON in the new location; and termination of the existing ATCT/TRACON facility lease with the FAI airport.

The existing FAI ATCT/ TRACON operates 24 hours per day, 7 days a week. The FAA Terminal Area Forecast (TAF) database maintains a record of historic airport operations and forecasts future operations. This information for FAI can be used to anticipate future changes to demand in air traffic operations. Table 2-1 provides the FAA TAF showing historic and forecasted operations at FAI.

Table 2-1 Terminal Area Forecast for Fairbanks International Airport

YEAR	AIRPORT OPERATIONS	ATCT OPERATIONS	TRACON OPERATIONS
2020	36,349	62,894	67,968
2021	34,877	68,950	82,462
2022	32,191	68,837	85,725
2023	31,815	70,533	84,235
2024	35,301	73,654	88,755
2025	35,419	76,688	91,889
2026	35,538	77,258	92,493
2027	35,657	77,835	93,113
2028	35,777	78,313	93,621
2029	35,897	78,724	94,050
2030	36,017	79,126	94,467

Notes:

For definitions, refer to the Acronyms and Abbreviations list (Appendix J).

Source: FAA 2025.

The existing ATCT/TRACON occupies approximately 1.5 acres of ADOT&PF-owned land centered at coordinates 64°48'38.88"N, 147°50'54.77"W. The ATCT, commissioned in 1977, consists of a tower, which is owned and operated by FAA, and a base building, which is owned and operated by ADOT&PF. FAA also leases a wing of the base building from ADOT&PF. The tower has a cab size of approximately 430 square feet with a cab eye level of 73 feet above ground level (AGL). The TRACON is housed within the ATCT shaft, occupying approximately 704 square feet of the 1,210-square-foot fourth floor (FAA 2023a).

The proposed new ATCT/TRACON site would occupy approximately 6 acres approximately 700 feet northeast of the existing facility, centered at coordinates 64°48'44.0017"N, 147°50'33.4357"W. The site would include the new ATCT/TRACON and a paved parking lot as well as room for a cleared and filled construction laydown area. The new ATCT would have a cab size of approximately 550 square feet composed of mullions and slat-wall consoles with a cab eye level of 214 feet AGL to provide an unobstructed 360-degree view of all controlled airport surface areas and maximum visibility of all airborne traffic. No administrative or operational functions would be inside the new ATCT shaft. The new TRACON would be located in a base building attached to the ATCT. The new ATCT/TRACON would conform to national design standards and would be built to resist seismic events (Appendix F). The construction and operation of the proposed ATCT/TRACON would not change flight patterns or increase operations at the airport. Construction of the new ATCT/TRACON is anticipated to begin in 2027 and conclude in 2032. Following completion/commission of the new ATCT/TRACON, FAA would vacate the leased wing of the existing ATCT base building and relinquish the space back to ADOT&PF and the existing ATCT/TRACON would be demolished.

As part of the Proposed Action, new underground utility lines would be installed to connect the new ATCT/TRACON to water, sewer, gas, electrical, and telephone services along University Avenue South and to the FAA-owned Fiber Optic Transmission System (FOTS) and other communication cables at several locations across FAI. The FOTS consists of fiber optic cables, communications, monitoring, and auxiliary equipment that support critical services and facilities at the airport. During FOTS installation, existing conduits would be used as much as possible to limit the disturbance to undeveloped and vegetated land and airport operations, meet the construction schedule, and reduce costs. Where existing duct bank cannot be used, new direct-burial high-density polyethylene (HDPE) conduit or concrete-encased Schedule 40 polyvinyl chloride (PVC) conduit would be installed. Trenches measuring 1 to 2 feet wide and up to 3 feet deep would be excavated for the conduit. Manholes measuring 64 cubic feet would be constructed above vaults for maintenance access. The vaults would generally be installed with the top not more than 4 feet below grade. A temporary cable system would interconnect the existing and new ATCT/TRACONS to facilitate transition of the systems during the replacement. This system would be disconnected and removed from the network once the transition is complete.

3.0 PURPOSE AND NEED

The purpose of the Proposed Action is to provide a replacement ATCT and TRACON that:

1. Meet the space, height, and cab orientation requirements specified in FAA Order JO 6480.7E, *Airport Traffic Control (ATCT) and Terminal Radar Approach Control (TRACON) Design Policy* and FAA Order 6480.4B, *Airport Traffic Control Tower Siting Process*.
2. Ensure safe air navigation meeting the requirements specified in 14 CFR § 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*.

3. Ensure safe movement of aircraft with a clear line-of-sight between the ATCT and all active movement areas around the airport.
4. Meet International Building Code, National Fire Protection Association, and Occupational Safety and Health Administration standards.

FAA evaluated the condition of the existing ATCT facility and lifecycle implementation considerations associated with potential modernization through internal technical and investment analyses that informed development of the Proposed Action (*FAA Condition Assessment and 6480.17 Facility Evaluation Report*, 2018b; *FAA Investment Analysis Document*, 2023a). The existing ATCT/TRACON is in poor condition and lacks sufficient space to meet Air Traffic Control mission requirements or accommodate new technologies and equipment and the staff required to operate and maintain them. The facility has outlived its useful design life of approximately 25-30 years and has multiple building code and FAA standard deficiencies pertaining to fire life safety and architecture, and the facility mechanical and electrical systems require significant updates (FAA 2023a). Structural and building system deficiencies affecting safety, reliability, and building code compliance identified at the FAI ATCT include (FAA 2018b):

- Fire safety/code violations – Fire-rated assemblies are inadequately sealed and there are general deficiencies in passive fire protection measures.
- Exterior envelope deterioration – Cracking, delaminating, and failed sealants present weatherproofing and energy efficiency concerns.
- Outdated mechanical, electrical, and Heating, Ventilation, and Air Conditioning (HVAC) systems – These systems are increasingly unreliable, contributing to inconsistent interior conditions, operational inefficiencies, and increased maintenance needs. Cooling systems are approaching their end of life and fail to maintain comfort, especially on the fifth floor and in the cab of the ATCT.
- Site and support infrastructure limitations – Overflow parking is inadequate and is located across an unsupervised unplowed road with no fencing, causing a personnel safety and operational reliability concern. Generator exhaust and ramp fumes affect the building interior air quality – a significant occupational health and operational issue.
- Functional and operational deficiencies – The tower cab configuration is inadequate due to the supervisor position's orientation away from operations, which limits visibility and efficient oversight; temperature gradients vary across the cab; air circulation is poor; and limited convenience space negatively impacts human factors.

The existing ATCT was commissioned in 1977, prior to the initial publication of FAA Order JO 6480.7 in 1982 (the current design policies at FAA Order JO 6480.7E were published in 2009). As a result, the cab height of the existing tower is too low to allow for full visibility of all aircraft movement areas around the airport.

The following line-of-sight (LOS) deficiencies were identified for the FAI ATCT (FAA 2023a, 2018b):

- The FAI ATCT failed the minimum requirements for LOS angle of incidence with a score of 0.66 for runway 2L and 0.64 for runway 20R. The angle of incidence refers to the minimum angle required for air traffic controllers to have an unobstructed view of all runways, taxiways, and landing areas. A score of 0.80 is required to pass.
- The approach end of Runway 20W (the float pond) is blocked by trees as well as the pond embankment, which is several feet above the actual water level. FAI air traffic controllers often rely on pilots to report clear of the landing channel.

- A portion of Taxiway C is blocked by an aircraft hangar just south of Taxiway R. Other taxi lanes are likewise blocked by terrain and buildings.
- The catwalk structure of the existing ATCT obstructs ground-level views from the cab.
- Taxiway A is parallel to runway 2L/20R, and these parallax issues make it difficult for controllers to verify that arriving aircraft are lined up for the runway. Furthermore, aircraft pushing back from the passenger terminal on the ramp are close to Taxiway A, and parallax issues make it difficult for controllers to verify that these aircraft are not intrusive to aircraft on the taxiway.

These LOS and angle-of-incidence deficiencies also prevent air traffic controllers from effectively performing two-point lateral discrimination, meaning the angle between the cab and the ground is too low to judge whether an aircraft or vehicle is on the taxiway or the runway.

In addition to the shortcomings identified at the FAI ATCT, deficiencies noted at the TRACON include poor lighting and glare on radar scopes, no effective supervisory position, lack of storage, and outdated and unreliable systems (FAA 2018b).

Per FAA Order 6480.17, *Terminal Facility Modernization/relocation Survey and Evaluation Handbook*, a facility may be recommended for replacement instead of modernization when:

- It fails to support safe and efficient air traffic operations
- It exhibits persistent functional or structural deficiencies that are costly or infeasible to correct
- It creates occupational or safety hazards or is functionally obsolete.

The FAI ATCT meets all these criteria based on operational sightline and equipment limitations, numerous structural/fire safety code violations, aging building systems and limited adaptability, and the high cost of partial modernization with limited improvement in function. Therefore, the need for the Proposed Action is to address the existing facility's structural and functional deficiencies and ensure safe movement of aircraft by providing a cleared LOS between the ATCT and all active movement areas.

4.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

FAA Order 1050.1F states that alternatives must be considered to the degree commensurate with the nature of the Proposed Action and agency experience with the environmental issues involved (FAA 2015). The NEPA process is intended to support flexible, informed decision-making. The analysis provided by this EA and feedback from the public and other agencies will inform decisions regarding whether, when, and how to execute the Proposed Action. The No Action Alternative will substantively analyze the consequences of not undertaking the Proposed Action, not simply conclude no impact, and will serve to establish a comparative baseline for analysis. A non-ATCT alternative was not considered as it would not meet the purpose of and need for the Proposed Action and would therefore not be a feasible alternative.

4.1 ATCT Siting Alternatives Considered

Alternatives were identified and screened to determine if they were reasonable and met the purpose and need identified in Section 3.0 and either eliminated from further consideration or carried forward for environmental analysis. Both "action" and "no action" alternatives were considered. While a "no action" alternative may not address an identified need, evaluation of the "no action" alternative is required per FAA Order 1050.1F and serves as a basis of comparison against other alternatives retained for environmental analysis. This section identifies and evaluates the alternatives considered in detail.

Alternatives to the Proposed Action were identified by reviewing advanced planning efforts completed by FAI and FAA for the project.

FAA Order 6480.4B establishes requirements for determining the site location, tower height, and cab orientation of ATCTs. The ATCT siting process considers criteria relating to the safety of air traffic operations for each potential ATCT site. While all siting criteria must be considered, the greatest emphasis is placed on impacts to instrument approach procedures; impacts to communications, navigation, and surveillance equipment; visibility performance; Comparative Safety Assessment; operational requirements; and economic considerations (FAA 2018a). All siting alternatives advanced for consideration must first meet these basic criteria.

In 2023, FAA conducted a siting study to evaluate eight proposed locations at FAI for construction of a new ATCT/TRACON. Sites 2, 3, 4, and 7 were removed from further consideration because they did not meet FAA Order 6480.4B siting criteria (Appendix F):

- Site 2 was removed from further consideration due to the key point distance to the approach end of Runway 2L being 9,849 feet.
- Site 3 was removed from further consideration because the cab eye level of 90 feet AGL would require changes to precision approaches.
- Site 4 was removed from further consideration due to the height necessary to mitigate LOS issues and associated cost.
- Site 7 was removed from further consideration because the cab eye level of 136 feet AGL would require changes to precision approaches.

Sites 1, 5, 6, and 8 met the siting criteria and were considered viable options; however, Sites 5, 6, and 8 were ultimately eliminated from further study due to glare and lighting issues, conflicts with current uses, and inadequate space required for the new ATCT/TRACON facility. Thus, Site 1 was selected as the Preferred Alternative (Appendix F). In keeping with the Proposed Action's purpose and need, only alternatives that meet the siting criteria in FAA Order 6480.4B are considered in this section.

4.1.1 Site 1 (Preferred Alternative)

Site 1 is located approximately 1,000 feet east northeast of and on the same side of the airfield as the existing ATCT/TRACON. Site 1 provides an unobstructed view of the airport and a good discriminatory view of all movement areas and most non-movement areas, the approach ends, approach/departure paths, and entry/exit points to all runways. No disadvantages were identified. Site 1 would also have the least overall impact on existing airport tenant operations. The site was historically used as a paid parking lot for east ramp tenants and a snow dump in winter, but it is no longer used for those purposes and is available for development.

Site 1 was selected as the Preferred Alternative and will be carried forward as the Proposed Action to be evaluated in this EA.

4.1.2 Site 5

Site 5 is located approximately 780 feet southwest of and on the same side of the airfield as the existing ATCT/TRACON in a parking area northeast of Wright Air Service. Site 5 provides an unobstructed view of the airport and a good discriminatory view of all movement areas and most non-movement areas, the approach ends, approach/departure paths, and entry/exit points to all runways. No disadvantages were identified.

Site 5 was removed from consideration because the site is currently leased property that functions as a commercial aircraft maintenance facility. There is not enough space at Site 5 to meet the needs (approximately 6 acres) of the proposed new ATCT/TRACON facility, and construction at this site would negatively impact tenant operations. There is limited on-airport space available and there would be no available lease space to relocate the tenants.

4.1.3 Site 6

Site 6 is located approximately 4,200 feet northwest of the existing ATCT/TRACON on the opposite side of the airfield in a ramp area approximately 500 feet southwest of the main passenger terminal. The site is situated on a concrete pad that is currently used for snow storage. Site 6 provides an unobstructed view of the airport and a good discriminatory view of the approach ends, movement and non-movement areas, approach/departure paths, and entry/exit points to all runways; however, it was determined that a south-facing orientation would create issues from the angle of the sun, sun glare reflecting off of snow, and terminal lighting that would require further hazard analysis.

Site 6 was ultimately determined to be non-viable and removed from consideration following the siting analysis due to its proximity to the terminal, where the large surrounding lights create an optical phenomenon known as light pillars, in which flat ice crystals close to the ground reflect light in vertical columns, preventing air traffic controllers from discerning activity occurring in the movement area (the section of the airfield that includes runways and taxiways, where aircraft are actively taxiing, taking off, and landing). Additionally, the site is used as a snow storage area.

4.1.4 Site 8

Site 8 is located approximately 220 feet southwest of and on the same side of the airfield as the existing ATCT/TRACON in a parking area northeast of Air Arctic. Site 8 provides an unobstructed view of the airport and a good discriminatory view of all movement areas and most non-movement areas, the approach ends, approach/departure paths, and entry/exit points to all runways. No disadvantages were identified.

Site 8 was removed from consideration because the site is currently leased and functions as an aircraft hangar, passenger, and freight facility. Similar to Site 5, there is not enough space available at the site to construct the new ATCT/TRACON facility without negatively impacting current tenant operations.

4.1.5 No Action Alternative

Under the No Action Alternative, a new ATCT/TRACON would not be constructed, and the existing ATCT/TRACON would continue to monitor aircraft and ground traffic at FAI from its current location.

Only the Preferred Alternative and the No Action Alternative are further evaluated in this EA. The Preferred Alternative (relocation and construction of a new replacement ATCT/TRACON at Site 1) best meets the purpose of and need for the Proposed Action (Figures 4-1-1 and 4-1-2).

Document Path: G:\PROJECTS\BRS\FAACBP_FAI_ATCT_EA_GIS1_MXD\SSHP\F04_1_ATCT_Siting_Als.mxd



1 INCH

ENVIRONMENTAL ASSESSMENT FOR PROPOSED
AIRPORT TRAFFIC CONTROL TOWER/TERMINAL
RADAR APPROACH CONTROL FACILITY
REPLACEMENT
FAIRBANKS INTERNATIONAL AIRPORT, ALASKA
REPLACEMENT ATCT/TRACON SITE
ALTERNATIVES CONSIDERED



Legend

- Existing ATCT/TRACON
- ATCT Siting Alternatives

Abbreviations

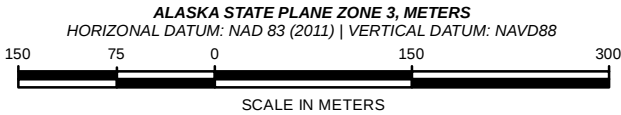
- ATCT Airport Traffic Control Tower
- TRACON Terminal Radar Approach Control Facility

Notes

- For conceptual purposes only. All locations are approximate.

References

- FAA. 2023. Airport Traffic Control Tower Siting Report. June 29.
- Basemap source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.



PROJECT No.: ACBP01	DATE: 10/31/2024	FIGURE: 4-1-1
P.M.: M.H.	DRAWN: R.R.	



ENVIRONMENTAL ASSESSMENT FOR PROPOSED
AIRPORT TRAFFIC CONTROL TOWER/TERMINAL
RADAR APPROACH CONTROL FACILITY
REPLACEMENT
FAIRBANKS INTERNATIONAL AIRPORT, ALASKA
REGION OF INFLUENCE FOR THE PROPOSED
ACTION

- Legend**
- Existing ATCT/TRAcon
 - ATCT/TRAcon Site Alternative
 - Underground Utilities
 - Fairbanks International Airport Boundary

Abbreviations

ATCT Airport Traffic Control Tower
TRAcon Terminal Radar Approach Control Facility

Notes

1. For conceptual purposes only. All locations are approximate.

References

1. Basemap source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

ALASKA STATE PLANE ZONE 3, METERS
HORIZONTAL DATUM: NAD 83 (2011) | VERTICAL DATUM: NAVD88

350 175 0 350 700
SCALE IN METERS

PROJECT No.: ACBP01	DATE: 2/12/2025	FIGURE: 4-1-2
P.M.: M.H.	DRAWN: R.R.	

5.0 AFFECTED ENVIRONMENT

In accordance with NEPA and FAA Order 1050.1F, this section describes the current conditions of the environmental resources, either manmade or natural, that may potentially be affected by implementing the Proposed Action or the No Action Alternative.

The terms “effects” or “impacts” are used interchangeably throughout this EA to mean reasonably foreseeable changes to the human environment resulting from implementing the Proposed Action or alternatives.

The term “region of influence” (ROI) is used throughout this EA to refer to the area that has been studied for potential direct or indirect effects of the Proposed Action where physical disturbance or visual impacts would occur. Unless otherwise indicated, the ROI for the environmental impact categories described below refers to the discontinuous area consisting of the 1.5-acre existing ATCT/TRACON demolition footprint and staging area adjacent to the FAI east ramp tiedown area; the 6-acre new ATCT/TRACON construction footprint and staging area/laydown yard on the east side of University Avenue South; and 5 acres (4 linear miles of 10-foot-wide corridor) of utility lines composed of FOTS cable west of Runway 2R/20L; northeast of the FAI float pond; and along University Avenue South. One acre of water, sewer, gas, electrical, and telephone service lines is also included in the corridor along University Avenue South (Figure 4-1-2).

All environmental impact categories described in Section 5.0 are evaluated in Section 6.0 except Coastal Resources, U.S. Department of Transportation (DOT) Act Section 4(f), Farmlands, and Wild and Scenic Rivers.

- **Coastal Resources** – FAI is located approximately 257 miles from the nearest coastline. The State of Alaska does not participate in the Coastal Zone Management Program and is not subject to the National Marine Sanctuaries Act or Coastal Barrier Resources Act; therefore, coastal resources would not be affected by the Proposed Action.
- **DOT Act Section 4(f)** – No DOT Act Section 4(f) properties are present within or near the ROI; no work or staging would take place on DOT Act Section 4(f) properties.
- **Farmlands** – There are no Farmland Protection Policy Act-designated prime or unique farmlands or farmlands of statewide importance in Alaska; therefore, such farmlands would not be affected by the Proposed Action.
- **Wild and Scenic Rivers** – There are no Wild and Scenic Rivers within or near the ROI.

5.1 Air Quality

5.1.1 Regulatory Setting

The FAA Order 1050.1F Desk Reference defines air quality as the measure of the condition of the air expressed in terms of ambient pollutant concentrations and their temporal and spatial distribution. Air quality regulations in the U.S. are based on concerns that high concentrations of air pollutants can harm human health, especially for children, the elderly, and people with compromised health conditions; as well as adversely affect public welfare by damaging crops, vegetation, buildings, and other property (FAA 2023b).

FAA’s *Aviation Emissions and Air Quality Handbook* and its accompanying technical support document provide guidance, procedures, and methodologies appropriate for use in carrying out air quality

assessments prepared in association with FAA actions to ensure such analyses meet the requirements of the NEPA, the CAA, and other applicable laws and regulations (FAA 2024a).

Combustion of fossil fuels generates carbon dioxide (CO₂) and other emissions. CO₂ equivalent (CO₂e) is a metric used to express emissions from multiple gases in a common unit. There is a direct relationship between fuel consumption and CO₂ emissions; therefore, fuel consumption can be used to estimate associated CO₂ and CO₂e emissions (FAA 2023b).

CO₂ and CO₂e emissions associated with construction and operation of the replacement ATCT/TRACON facility under the Proposed Action are disclosed in Section 6.1.

5.1.1.1 Clean Air Act

Under the Clean Air Act (CAA) of 1970 (42 USC § 7401 *et seq.*), federal agencies are required to consider the potential impacts of a Proposed Action on air quality. The U.S. Environmental Protection Agency (EPA) has developed National Ambient Air Quality Standards (NAAQS) for six major pollutants of concern, called “criteria pollutants:” carbon monoxide (CO); sulfur dioxide (SO₂); nitrogen dioxide (NO₂); ozone (O₃); total suspended particulate matter less than or equal to 10 (PM₁₀) and 2.5 (PM_{2.5}) micrometers in aerodynamic diameter; and lead. Air pollution is defined as the presence of these criteria pollutants in the indoor or outdoor atmosphere in quantities exceeding the standards set by EPA. Table 5-1 provides the primary and secondary NAAQS for the criteria pollutants.

The CAA regulates emissions from on-road surface transportation vehicles and stationary power generation sources, and establishes a framework for managing air pollutants through emissions standards, permitting programs, and implementation plans. The FAA’s *Aviation Emissions and Air Quality Handbook* and its accompanying technical support document provide guidance, procedures, and methodologies appropriate for use in carrying out air quality assessments prepared in association with FAA actions to ensure such analyses meet the requirements of the NEPA, the CAA, and other applicable laws and regulations (FAA 2024a).

The CAA identifies two types of NAAQS: primary standards, which provide public health protection, including protecting the health of sensitive populations such as asthmatics, children, and the elderly; and secondary standards, which provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

EPA designates regions with poor air quality, in which ambient concentrations of criteria pollutants exceed NAAQS, as “nonattainment areas” for each applicable pollutant. Areas that formerly violated but currently meet the federal air quality standards are designated as “maintenance areas.”

The CAA requires each state to adopt a plan to achieve the NAAQS for each criteria pollutant within specific timeframes. These air quality plans, known as State Implementation Plans (SIPs), are collections of regulations and documents used by a state, territory, or local air district to implement, maintain, and enforce the NAAQS and fulfill other requirements of the CAA. SIPs in states with areas that do not meet the NAAQS must include additional requirements to reduce air pollution in those nonattainment areas. The General Conformity Rule (CAA 176[c][4]) establishes the procedures and criteria for determining whether federal actions conform to state or federal (EPA) air quality implementation plans.

Table 5-1 National Ambient Air Quality Standards

POLLUTANT		PRIMARY/SECONDARY	AVERAGING TIME	LEVEL
CO		Primary	8-hour	9 ppm (10 mg/m ³)
			1-hour	35 ppm (40 mg/m ³)
NO ₂		Primary	1-hour	100 ppb (188 µg/m ³)
		Primary and Secondary	Annual	53 ppb (100 µg/m ³)
O ₃		Primary and Secondary	8-hour	0.070 ppm (137 µg/m ³)
Particulate Pollution	PM _{2.5}	Primary	Annual	9 µg/m ³
		Secondary	Annual	15 µg/m ³
		Primary and Secondary	24-hour	35 µg/m ³
	PM ₁₀	Primary and Secondary	24-hour	150 µg/m ³
SO ₂		Primary	1-hour	75 ppb (105 µg/m ³)
		Secondary	3-hour	0.5 ppm (1,300 µg/m ³)
Lead (Pb)		Primary and Secondary	Rolling 3-month average	0.15 µg/m ³

Notes:

For definitions, refer to the Acronyms and Abbreviations list (Appendix J).

Source: EPA 2024a.

5.1.1.2 Permits

Title 18, Chapter 50 of the Alaska Administrative Code (AAC) provides the emissions thresholds above which a stationary source of air pollution is required to obtain a minor (Title I) or major (Title V) air quality permit. The Alaska Department of Environmental Conservation (ADEC) Air Permit Program issues Title I construction and minor source specific permits and Title V operating permits. The Title V Program also issues permit avoidance approvals such as Owner Requested Limits (ORL) and Pre-approved Emission Limits. The Proposed Action may require that FAA obtain construction and operating permits to maintain compliance with state or federal regulations.

5.1.2 Affected Environment

FAI is located within the Fairbanks North Star Borough (FNSB). The ROI for air quality is the FNSB, which comprises the urbanized areas of Fairbanks, Chena, Ester, Fox, and North Pole. The FNSB is in nonattainment for PM_{2.5} and maintenance for CO (Figure 5-1-1). The urban portion of the FNSB was designated in 1990 as a nonattainment area for CO, and a redesignation request was approved by EPA on 27 July 2004 (ADEC 2025a). In November 2009, a portion of the FNSB that includes the cities of Fairbanks and North Pole and their surrounding areas were classified as a Moderate PM_{2.5} nonattainment area for violating the 24-hour average standard (35 micrograms per cubic meter [µg/m³]) enacted by EPA in 2006. ADEC was given until December 2014 to develop a SIP to include strategies for achieving the PM_{2.5} NAAQS for the area. The SIP analysis concluded that attainment could not be achieved by the December 2015 regulatory deadline, and EPA reclassified the area as a Serious PM_{2.5} nonattainment area. Since that time, three iterations of SIPs and/or SIP amendments have been submitted. A 2024 amendment will incorporate the results of an updated attainment analysis from a new modeling platform, and the most expeditious attainment date is 31 December 2027 (ADEC 2024a). On 8 January 2025, the EPA issued an Interim Final Determination that the State of Alaska submitted SIP revisions that satisfy outstanding CAA requirements, and imposition of sanctions for the 2006 24-hour PM_{2.5} FNSB nonattainment area is deferred. The baseline emissions for the FNSB are presented in Table 5-2.

FAI operates under an ORL permit (Permit AQ0293ORL03) issued by ADEC (ADEC 2015). This permit requires FAI to submit an annual report documenting compliance with the regulations, emissions limits, and any deviations from the emission limits set forth by the permit. Nitric oxide (NO_x) emissions for FAI are limited to 39 tons per year (tpy), which limits the combined hours of operation of the facility's two diesel building generators to 3,000 hours in a twelve-month period.

Vehicle emissions at FAI include privately owned vehicles, light-duty gasoline and diesel trucks (0 to 8,500 pounds gross vehicle weight rating (GVWR), and heavy-duty diesel vehicles (8,501 pounds GVWR to greater than 60,000 pounds GVWR).

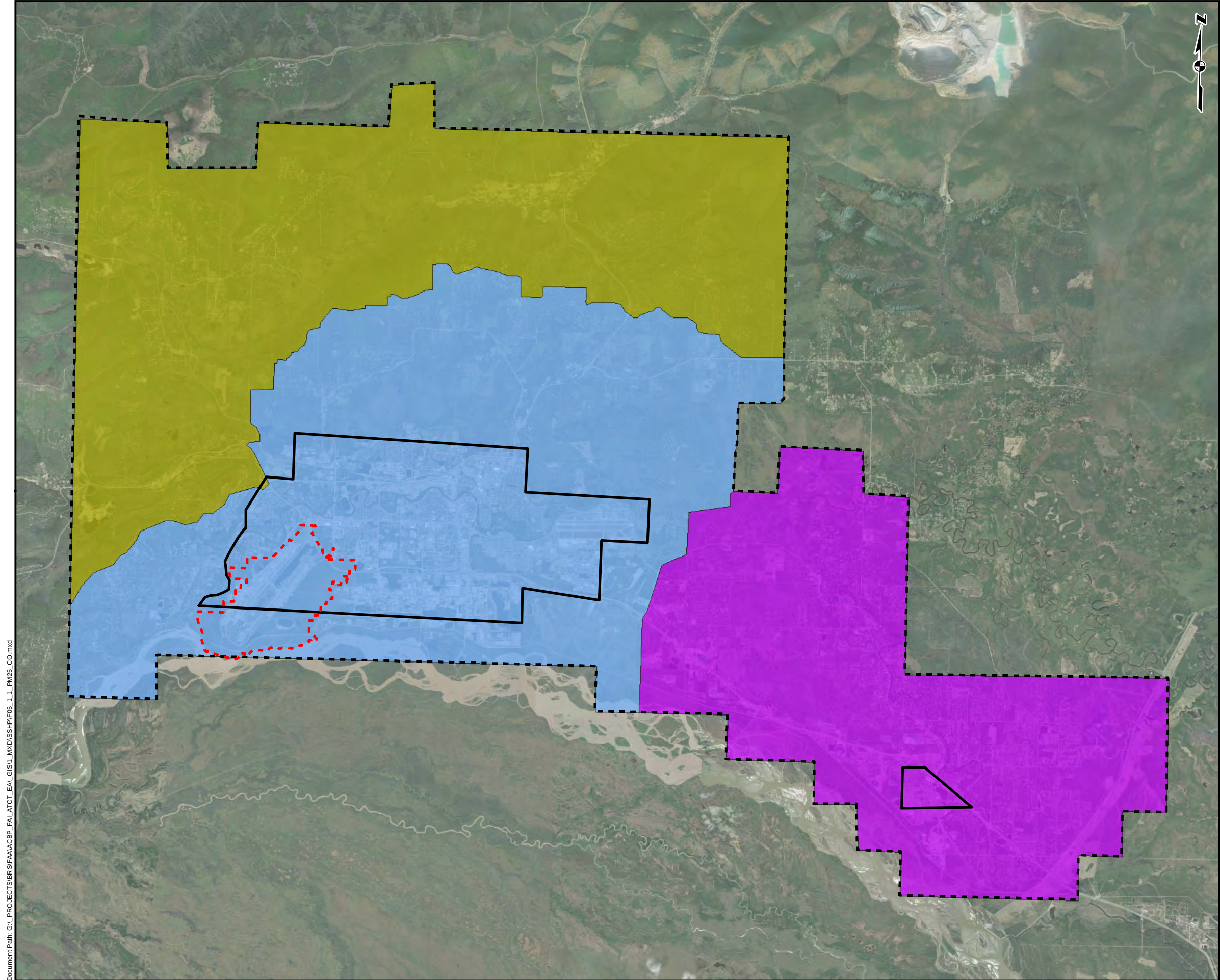
Table 5-2 Baseline Emissions for the Fairbanks North Star Borough

CRITERIA POLLUTANTS (TONS)					
CO	NO _x	VOCs	SO ₂	PM ₁₀	PM _{2.5}
1,296,771	12,877	322,330	6,905	131,138	110,355
CARBON DIOXIDE, METHANE, NITROUS OXIDE, AND CARBON DIOXIDE EQUIVALENT EMISSIONS (METRIC TONS)					
CO ₂	CH ₄	N ₂ O	CO ₂ e		
9,216,842	52,327	9	10,527,728		

Notes:

For definitions, refer to the Acronyms and Abbreviations list (Appendix J).

Source: EPA 2020.



Document Path: G:\PROJECTS\BRS\FAACBP_FAI_ATCT_EA_GIS1_MXD\SSHP\F05_1_1_PM25_CO.mxd

ENVIRONMENTAL ASSESSMENT FOR PROPOSED
AIRPORT TRAFFIC CONTROL TOWER/TERMINAL
RADAR APPROACH CONTROL FACILITY
REPLACEMENT
FAIRBANKS INTERNATIONAL AIRPORT, ALASKA
**FAIRBANKS NORTH STAR BOROUGH PM2.5
NONATTAINMENT AND CARBON MONOXIDE
MAINTENANCE AREAS**

- Legend**
- Fairbanks International Airport Boundary
 - Carbon Monoxide Maintenance Area
 - Fairbanks North Star Borough PM2.5 Nonattainment Area
 - Fairbanks Portion of AQ CZ
 - Goldstream Portion of AQ CZ
 - North Pole Portion of AQ CZ

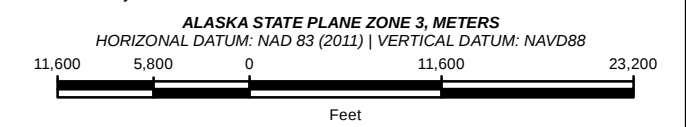
Abbreviations

AQ CZ air quality control zone
PM2.5 particulate matter < 2.5 micrometer

Notes

1. For conceptual purposes only. All locations are approximate.

- References**
1. Fairbanks North Star Borough Air Quality Office. 2017.
<https://www.fnsb.gov/338/Program-Boundaries>. 20 October.
 2. Basemap source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.



PROJECT No.: ACBP01	DATE: 10/24/2024	FIGURE: 5-1-1
P.M.: M.H.	DRAWN: R.R.	

5.2 Biological Resources

Biological resources are valued for their intrinsic, aesthetic, economic, and recreational qualities and include fish, wildlife, plants, and their respective habitats. Federal agencies must consider an action's potential impacts on biological resources under several statutes, EOs, and memoranda.

The ROI was visually inspected for the presence of biological resources on 23 September 2024. A report of this inspection, including photograph documentation, is included as Appendix D.

5.2.1 Regulatory Setting

5.2.1.1 Endangered Species Act

The Endangered Species Act (ESA) of 1973 (16 USC § 1531 *et seq.*) requires federal agencies, in consultation with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS; "the Services"), to verify that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat essential to the conservation of a threatened or endangered species. The ESA also prohibits any action that causes take of any listed animal. The ESA broadly defines "take" to include "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect." Furthermore, USFWS has declared that "harm" includes "significant habitat modification or degradation (USFWS and NMFS 1998)."

Pursuant to Alaska Statute (AS) 16.20.190, the Alaska Department of Fish and Game (ADF&G) maintains the state endangered species list and oversees the listing and recovery of special-status fish and wildlife species. Alaska's Wildlife Action Plan, prepared by ADF&G and supported through the USFWS State Wildlife Grant Program, is currently used to assess the needs of species of conservation concern and to prioritize conservation actions and research (ADF&G 2015).

5.2.1.2 Migratory Bird Treaty Act and Executive Order 13186

The Migratory Bird Treaty Act (MBTA) of 1918 (16 USC § 703–712), as amended, and EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, require federal agencies to conserve migratory bird populations. Unless otherwise permitted by regulations, the MBTA makes it unlawful to pursue, hunt, take, capture, or kill any migratory bird, nest, or egg. Federal agencies performing actions that could have measurable negative impacts on migratory birds are directed by EO 13186 to develop and implement a Memorandum of Understanding with USFWS to promote the conservation of migratory bird populations.

The MBTA authorizes USFWS to issue permits to qualified applicants for activities such as falconry, raptor propagation, scientific collection, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found at 50 CFR § 21.

5.2.1.3 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 USC § 668-668c) prohibits the take of bald (*Haliaeetus leucocephalus*) and golden (*Aquila chrysaetos*) eagles in the U.S. The BGEPA defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." Regulations further define "disturb" as "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its

productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.” This definition covers both immediate impacts and impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle’s return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death, or nest abandonment.

Some activities and projects are eligible for federal permits under the BGEPA. The regulation set forth in 50 CFR § 22.26 allows take permits to be issued where the taking is associated with, but not the purpose of, the activity and cannot practicably be avoided. Most takings authorized under this section are in the form of disturbance; however, permits may authorize non-purposeful takings that result in mortality (ADOT&PF 2014).

5.2.2 Affected Environment

FAI is located in the Interior Alaska Lowlands. It is situated in the Tanana Valley in an area of riparian shrubland and forested lowland habitat between the Chena River to the northwest and the Tanana River to the south. The subarctic continental climate of the region is characterized by short, warm summers and long, very cold winters. The average annual precipitation ranges from 10 to 15 inches in the east and 15 to 20 inches in the south and west. Maximum precipitation occurs in late summer, mainly as a result of thunderstorms. The average annual snowfall ranges from 30 to 80 inches. The average annual temperature ranges from about 22 degrees Fahrenheit (°F) in the east to 28°F in the west. The average frost-free period is about 70 to 120 days and the temperature usually remains above freezing from June through mid- September (U.S. Department of Agriculture 2004).

Most of the airport property is developed; however, the southwestern periphery and the land east of University Avenue South are relatively undisturbed and partially covered with dense stands of spruce (*Picea*) and birch (*Betula*) mixed with thickets of scrub alder (*Alnus*) and willow (*Salix spp.*; ADOT&PF 2014). Freshwater forested/shrub wetlands consisting primarily of mixed black spruce (*Picea mariana*) forest with shrub understory are generally concentrated on the eastern side of FAI property (ADOT&PF 2014, USFWS 2024a). Upland communities are prominent on the western side of FAI property and include mixed needleleaf/deciduous forests consisting primarily of paper birch (*Betula papyrifera*) and white spruce (*Picea glauca*; U.S. Geological Survey [USGS] 1995).

Lakes, ponds, rivers, and streams are abundant in the Tanana Valley and provide aquatic habitat for multiple resident and anadromous fish species, including king salmon (*Oncorhynchus tshawytscha*), rainbow trout (*Oncorhynchus mykiss*), Arctic grayling (*Thymallus arcticus*), and northern pike (*Esox Lucius*; ADOT&PF 2014; U.S. Department of the Air Force [DAF] 2024). Sloughs, ponds, and wetland complexes adjacent to FAI provide varying levels of habitat for some resident fish species. Anecdotally, northern pike occur in the FAI float pond (ADOT&PF 2014).

The Tanana Valley provides year-round habitat for resident bird species and summer breeding habitat for migratory bird species. Species commonly found at FAI include sandhill cranes (*Grus canadensis*), ducks and geese (*Anatidae*), ravens (*Corvus corax*), and shorebirds (ADOT&PF 2014). East of the airport, a braided channel of the Tanana River runs along the southern edge of Fairbanks, and a number of gravel pits, sloughs, and ponds draw wildlife and especially birds to the area. The gravel pits and sloughs attract migrating birds, and adjacent grasslands and woodlands harbor a wide range of shorebirds and songbirds, particularly during the spring migration from late April to late May (ADF&G 2024a).

Mammal species that may be present in the ROI include moose (*Alces alces*), black bear (*Ursus americanus*), marten (*Martes americana*), red squirrel (*Tamiasciurus hudsonicus*), snowshoe hare (*Lepus americanus*), muskrat (*Ondatra zibethicus*), and beaver (*Castor canadensis*; ADOT&PF 2014; DAF 2024). Small mammals attract and provide a year-round food source for terrestrial predators (e.g., fox and lynx), common ravens, and raptors (FAI 2024).

FAI holds a Public Safety Permit (Permit 24-069) authorizing harassment or lethal removal of wildlife on airport property to protect human health and safety. This includes nonlethal hazing of birds and mammals to alleviate hazards to arriving and departing aircraft; lethal and nonlethal take of waterfowl, gulls, shorebirds, passerines, raptors (with a lethal take limit of up to three raptors, not including eagles or endangered species), corvids, and sandhill cranes using shotguns with nontoxic shot and lethal take of beavers, foxes, coyotes, muskrats, and porcupines as needed to protect aircraft and facilities; and take of moose as specified in the “Policy on Moose at the Fairbanks International Airport.” The permit encourages lethal take of all species classified as deleterious exotic wildlife (e.g., starlings, house sparrows, pigeons, raccoons, rats, mice, gerbils, other murid rodents, and Belgian hares) and allows disruption of cliff swallow nesting activities by washing nests from the terminal building or other facilities on airport property as well as destruction of the previous year’s nests prior to spring migration. The permit does not authorize the removal of active nests, with exceptions for ducks, geese, gulls, and shorebirds (FAI 2024).

5.2.2.1 Threatened and Endangered Species and Designated Critical Habitat

As of October 2024, in the State of Alaska there are 40 species listed as threatened or endangered and one species listed as proposed threatened under the ESA (USFWS 2024b; National Oceanic and Atmospheric Administration [NOAA] 2024). No ESA-listed threatened or endangered species or designated critical habitat occur in the ROI (USFWS 2024c).

5.2.2.2 State Protected Species

Alaska’s Wildlife Action Plan is used to assess the needs of species of conservation concern and to prioritize conservation actions and research. The Plan identifies “Species of Greatest Conservation Need” (SGCN), including species whose population is small, declining, or under significant threat; species that are culturally, ecologically, or economically important; sentinel species, which are used as indicators of environmental change; and stewardship species, which have a high percentage of their North American or global populations in Alaska. There are 137 SGCN in the Central Alaska Bioregion, including fish, freshwater invertebrates, birds, amphibians, and mammals (ADF&G 2015).

The taking of game at FAI is regulated by AS 16.05.920, *Prohibited Conduct Generally*, and 5 AAC 92.033, *Permit for Scientific, Educational, Propagative, or Public Safety Purposes*.

5.2.2.3 Migratory Birds and Eagles

A resource list retrieved from the USFWS Information for Planning and Consultation system (USFWS 2024c) indicates that the following species protected under the MBTA and BGEPA may be present in the ROI: American golden-plover (*Pluvialis dominica*), bald eagle, golden eagle, Hudsonian godwit (*Limosa haemastica*), lesser yellowlegs (*Tringa flavipes*), and olive-sided flycatcher (*Contopus cooperi*).

FAI holds a Depredation at Airports Permit (Permit MB691950) issued by USFWS authorizing activities that are otherwise illegal under the MBTA. This permit gives FAI the authority to lethally remove up to 100 migratory birds and up to 10 active nests (including eggs) for human health and safety purposes. The permit also requires that an integrated wildlife damage management program involving habitat

management, exclusion, and repulsion techniques be used in conjunction with lethal reinforcement. The permit does not allow the take of eagles, species listed as threatened or endangered under the ESA, or birds of conservation concern as designated by the USFWS (FAI 2024).

5.3 Hazardous Materials, Solid Waste, and Pollution Prevention

5.3.1 Regulatory Setting

5.3.1.1 Resource Conservation and Recovery Act, CERCLA, and Contaminated Site Cleanup

EO 12088, *Federal Compliance with Pollution Control Standards*, as amended, directs federal agencies to comply with “applicable pollution control standards” in the prevention, control, and abatement of environmental pollution and to consult with the EPA, state, interstate, and local agencies concerning the best techniques and methods available for the prevention, control, and abatement of environmental pollution. The two statutes of greatest importance to FAA in proposing actions to construct and operate facilities and navigational aids are the Resource Conservation and Recovery Act (RCRA) of 1976 (42 USC § 6901 *et seq.*) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 USC § 9601 *et seq.*), as amended by the Superfund Amendment and Reauthorization Act (- or Superfund) of 1986 and the Community Environmental Response Facilitation Act (CERFA) of 1992. RCRA governs the generation, treatment, storage, and disposal of hazardous wastes. CERCLA provides for consultation with natural resources trustees and cleanup of any release of hazardous substances (excluding petroleum) into the environment.

Contaminated sites cleanup is managed by ADEC under Article 3 of 18 AAC 75, *Oil and Other Hazardous Substances Pollution Control*. The ADEC Contaminated Sites Program is responsible for protecting human health and the environment through oversight of site characterization, cleanup, redevelopment, and management.

5.3.1.2 Oil Pollution Prevention

Storage of bulk petroleum products is regulated by the federal regulations at 40 CFR § 112, *Oil Pollution Prevention*. A facility with an aggregate aboveground oil storage capacity of more than 1,320 gallons must develop and maintain a Spill Prevention, Control, and Countermeasures (SPCC) plan. For the purpose of this rule, only containers with a capacity of 55 gallons or greater are counted toward the aggregate capacity. The SPCC plan must describe the facility’s oil storage, emergency spill response procedures, and preventive measures such as inspections and training.

In the State of Alaska, ADEC prevents and prepares for spills of oil and hazardous substances and responds to spills under Article 3 of 18 AAC 75. The ADEC Contaminated Sites Program manages the cleanup of petroleum and hazardous substance spill sites across the state to protect human health and the environment. Under Article 4 of 18 AAC 75, ADEC also requires Oil Discharge Prevention and Contingency Plans (ODPCP) for facilities storing more than 420,000 gallons of petroleum product. Additional related state regulations include 18 AAC 78, *Underground Storage Tanks (UST)*, under which ADEC oversees operation and compliance of underground petroleum storage tanks, and 18 AAC 60, *Solid Waste Management*, under which ADEC regulates health and environmental compliance at solid waste facilities.

5.3.1.3 Emergency Planning and Community Right-to-Know Act

The Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 (42 USC § 11001–11050) is designed to help local communities protect public health, safety, and the environment from chemical hazards. EPCRA requirements cover emergency planning and “Community Right-to-Know” reporting on hazardous and toxic chemicals, thereby increasing the public’s knowledge and access to information on chemicals stored at individual facilities, their uses, and releases into the environment (EPA 2024b).

5.3.1.4 Toxic Substances Control Act

Toxic substances are specific substances whose manufacture, processing, distribution, use, or disposal are restricted by the Toxic Substances Control Act (TSCA) of 1976 (15 USC § 2601 *et seq.*) because they present an unreasonable risk to human health or the environment. These include lead-based paint (LBP), polychlorinated biphenyls (PCB), and asbestos-containing material (ACM). Lead was often used as a paint additive prior to 1978; buildings constructed before 1978 are at higher risk of containing LBP. Asbestos was widely used from the 1930s to the 1970s but has been phased out since the 1980s; buildings constructed before this timeframe are at higher risk of containing ACM. EPA has also established the National Emission Standards for Hazardous Air Pollutants (NESHAP), under which asbestos is regulated as a hazardous air pollutant. The regulations are intended to minimize the release of asbestos fibers during activities involving the handling of asbestos.

5.3.1.5 Solid Waste

Solid waste is regulated by ADEC under 18 AAC 60. The ADEC Solid Waste Program reviews designs and permits and conducts inspections and monitoring to enforce environmental compliance for solid waste facilities. At the local level, the FNSB Solid Waste Division oversees solid waste management, disposal, recycling, and waste-to-energy programs for the borough. There are 13 solid waste facility and transfer site locations within the FNSB.

5.3.2 Affected Environment

5.3.2.1 Resource Conservation and Recovery Act, CERCLA, and Contaminated Site Cleanup

FAI manages solid and hazardous wastes under its Solid Waste Management Plan (SWMP; ADOT&PF 2023a). FAI is considered a Small Quantity Generator (RCRA ID AKR000207449). The existing ATCT/TRACON generates some universal and non-regulated waste such as used oil, used antifreeze, a small amount of batteries, and fluorescent light bulbs. Wastes are stored at the FAI compound, where the hazardous materials lockers are. A waste pickup occurs once or twice a year. No hazardous waste is generated from the ATCT/TRACON (FAA 2024b).

The Proposed Action involves the construction of a new ATCT/TRACON at Preferred Site 1, a parcel located within the airport property. A Phase I Environmental Site Assessment (Phase I ESA) was conducted for the site in 2023 to evaluate the presence or likely presence of recognized environmental conditions (REC) in connection with the property and to provide information for FAA decision-making regarding property acquisition. The 2023 Phase I ESA did not identify any RECs at Preferred Site 1 (FAA 2023c).

There are no National Priorities List (NPL)-listed or candidate NPL sites or other active CERCLA sites at or adjacent to Preferred Site 1 (FAA 2023c). A search of the ADEC Contaminated Sites Database found no active contaminated sites at Preferred Site 1; however, six active contaminated sites were found within 0.5 miles of the site (Table 5-3). Additionally, most of FAI is underlain by a groundwater per- and

polyfluoroalkyl substances (PFAS) plume, the source of which is presumably past usage of aqueous film-forming foam (AFFF) at airport fire training areas (FAA 2023c). The PFAS plume is tracked and managed by the ADEC Contaminated Sites Program under Site Name “FIA – Sitewide PFAS.” FAI is conducting an Environmental Mitigation Pilot Project (EMPP) to address PFAS soil and groundwater contamination through innovative technologies, including thermal treatment of soil and hydrothermal alkaline treatment for liquids. The groundwater PFAS plume lies approximately 0.5 miles west of the existing ATCT/TRACON and Preferred Site 1 and overlaps with 1,353 feet of the proposed FOTS alignment. The 2018 PFAS Groundwater Characterization report (ADOT&PF 2019a), incorporated into this analysis by reference, does not identify any potential PFAS source sites upgradient or crossgradient of the existing tower or Preferred Site 1; the closest site depicted on the report’s Figure A3 is site “P,” which is 1,000 feet northwest (downgradient) of Preferred Site 1. Site “P” is the site of multiple aircraft incidents from 2003 to present, where an estimated 75 gallons total of AFFF was used. During the same investigation, a surface water sample (SW112) taken from the slough directly southwest of Preferred Site 1 was below ADEC PFAS action levels (Figure 5-4-1). Groundwater flow at FAI ranges seasonally between the northwest and southwest across the airport property, away from the existing tower, Preferred Site 1, and FOTS alignment (ADOT&PF 2019a). Table 5-3 and Figure 5-4-1 present the active contaminated sites and those with institutional controls (IC) in the vicinity of the Proposed Action.

One contaminated site for which cleanup is complete and ICs are observed was noted at the existing ATCT/TRACON. The site is subject to soil and groundwater restrictions and subsurface contamination remaining at depth that must be evaluated and addressed if it becomes accessible (ADEC 2024b).

A search of the ADEC Prevention, Preparedness, and Response Program Spills Database did not reveal any active spills at or in the vicinity of the Proposed Action (ADEC 2024c).

Table 5-3 Active Contaminated Sites and Contaminated Sites with Institutional Controls in the Vicinity of the Proposed Action

CONTAMINATED SITE NAME	SITE STATUS	APPROXIMATE DISTANCE FROM PROPOSED ACTION	SITE DESCRIPTION
FIA – Sitewide PFAS	Active	0.50 miles (Proposed New ATCT/TRACON site) 0.41 miles (Existing ATCT/TRACON site)	PFOS and PFOA exceeding EPA LHA and ADEC cleanup levels in groundwater and surface water samples from various locations throughout FAI property in 2017. Contamination from historic AFFF use in vicinity of ARFF building and Firefighter Training Areas. Sitewide groundwater plume.
FAA – FIA – Air Traffic Control Tower	Cleanup Complete – ICs	0.15 miles (Proposed New ATCT/TRACON site) 0.00 miles (Existing ATCT/TRACON site)	DRO contamination in soil from leaking UST. • Advance approval required to transport soil or groundwater offsite. • Movement or use of contaminated material violating water quality standards prohibited. • Excavation prohibited without ADEC-approved work plan. • Groundwater monitoring. Subsurface contamination must be evaluated and addressed when accessible.
FIA – Air Arctic (Northern Koyukuk) FKA Frontier Air	Active	0.22 miles (Proposed New ATCT/TRACON site) 0.07 miles (Existing ATCT/TRACON site)	Four USTs; soil contamination near one gasoline UST and dispenser island. 2006 removal action. Undelineated soil and groundwater contamination.

Table 5-3 Active Contaminated Sites and Contaminated Sites with Institutional Controls in the Vicinity of the Proposed Action

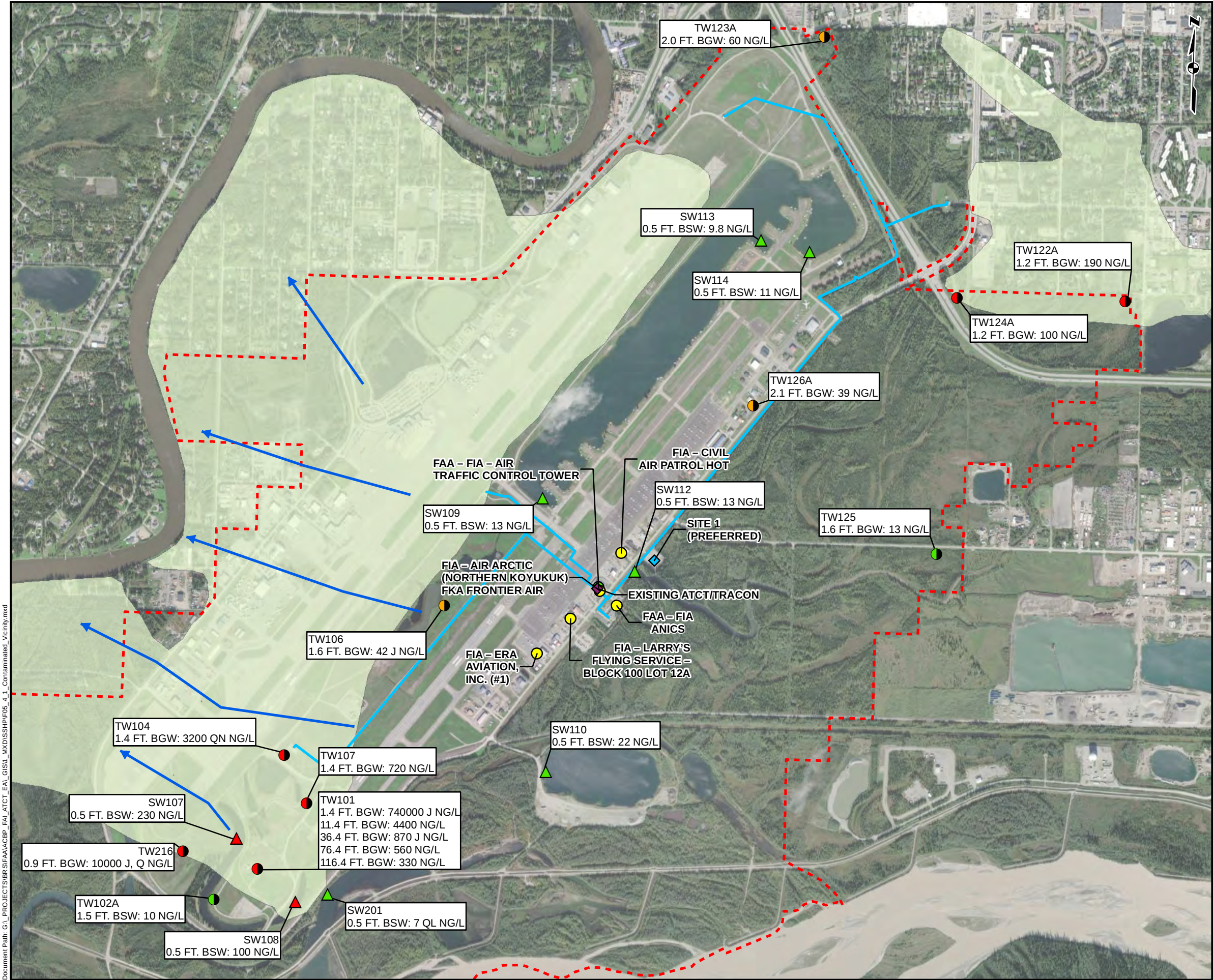
CONTAMINATED SITE NAME	SITE STATUS	APPROXIMATE DISTANCE FROM PROPOSED ACTION	SITE DESCRIPTION
FIA – Larry’s Flying Service – Block 100 Lot 12A	Active	0.27 miles (Proposed New ATCT/TRACON site) 0.12 miles (Existing ATCT/TRACON site)	Contamination from two USTs. Phase I and Phase II ESAs conducted. Groundwater monitoring in place.
FIA – ERA Aviation, Inc. (#1)	Active	0.25 miles (Proposed New ATCT/TRACON site) 0.40 miles (Existing ATCT/TRACON site)	Contamination discovered during removal of 3 USTs and fuel dispenser island. Removal action performed and air sparge soil vapor extraction unit installed. Groundwater monitoring conducted.
FAA – FIA ANICS	Active	0.14 miles (Proposed New ATCT/TRACON site) 0.07 miles (Existing ATCT/TRACON site)	Diesel spill from mounted equipment in 1996. Removal action during cleanup. Contamination remains beneath foundation at depth.
FIA – Civil Air Patrol HOT	Active	0.06 miles (Proposed New ATCT/TRACON site) 0.12 miles (Existing ATCT/TRACON site)	Soil contamination discovered during heating oil UST replacement.

Notes:

For definitions, refer to the Acronyms and Abbreviations list (Appendix J).

ICs (if applicable) are presented as bullet points under Site Description.

Source: ADEC 2024b, 2024d-i.



ENVIRONMENTAL ASSESSMENT FOR PROPOSED
AIRPORT TRAFFIC CONTROL TOWER/TERMINAL
RADAR APPROACH CONTROL FACILITY
REPLACEMENT
FAIRBANKS INTERNATIONAL AIRPORT, ALASKA

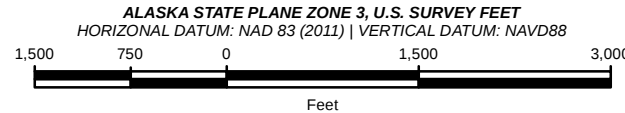
**ADEC CONTAMINATED SITES IN THE VICINITY OF
THE PROPOSED ACTION**

- Legend**
- ADOT&PF PFAS Test Results**
- ▲ Surface Water Sample, Results Below 35 ng/L
 - ▲ Surface Water Sample, Results Exceed 69 ng/L
 - Groundwater Sample, Results Below 35 ng/L
 - Groundwater Sample, Results Elevated 35 to 69 ng/L
 - Groundwater Sample, Results Exceed 69 ng/L
 - ◆ Existing ATCT/TRACON
 - ◆ ATCT Siting Alternative
- ADEC Contaminated Sites**
- Cleanup Active
 - Cleanup Complete - ICs
 - Groundwater Flow Direction
 - Underground Utilities
 - - - Fairbanks International Airport Boundary
 - FIA - Sitewide PFAS Plume

- Abbreviations**
- | | |
|---------|--|
| ADEC | Alaska Department of Environmental Conservation |
| ADOT&PF | Alaska Department of Transportation and Public Facilities |
| ANICS | Alaskan National Airspace Interfacility Communications System |
| ATCT | Airport Traffic Control Tower |
| bgw | below groundwater level |
| bsw | below surface water |
| FAA | Federal Aviation Administration |
| FIA | Fairbanks International Airport |
| ft | feet |
| HOT | heating oil tank |
| IC | institutional control |
| J | estimated concentration |
| Ng/L | nanograms per liter |
| PFAS | per- and polyfluoroalkyl substances |
| Q | Result has a serious deficiency and analyte presence/absence cannot be confirmed |
| QL | quantitation limit |
| QN | Result has an unknown bias due to a quality control failure |
| TRACON | Terminal Radar Approach Control Facility |

- Notes**
- For conceptual purposes only. All locations are approximate.

- References**
- Contaminated sites data sourced from Alaska Department of Environmental Conservation Contaminated Sites Database at <https://dec.alaska.gov/Applications/SPAR/PublicMVC/CSP/Search/>.
 - PFAS plume source: Division of Spill Prevention and Response.
 - Groundwater and PFAS results data sourced from ADOT&PF. 2019a. Final – 2018 PFAS Groundwater Characterization, FAI – Sitewide PFAS, Fairbanks, Alaska, Figure A-16. Prepared by R&M Consultants, Inc. <https://dec.alaska.gov/Applications/SPAR/PublicMVC/CSP/SiteReport/26816>. April 8.
 - Basemap source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.



PROJECT No.: ACBP01	DATE: 8/5/2025	FIGURE: 5-4-1
P.M.: M.H.	DRAWN: R.R.	

5.3.2.2 Oil Pollution Prevention

Fuel is stored at the existing ATCT/TRACON in a 2,500-gallon aboveground storage tank (AST) which stores heating oil for the building and a 1,000-gallon AST for the building's SX generator. FAA conducts monthly visual inspections of the tanks, associated valves and piping, and surrounding areas in accordance with the SPCC plan to confirm that all components are in good working order with no leaks (ADOT&PF 2023b). The ATCT/TRACON does not meet the minimum petroleum storage threshold requiring an ODPCP under ADEC Article 4.

5.3.2.3 Emergency Planning and Community Right-to-Know Act

There are no hazardous materials lockers at the existing ATCT/TRACON; hazardous materials storage at the tower is limited to bulk fuel storage in ASTs. Under EPCRA Tier II, there is a reportable amount of hazardous material stored at the existing ATCT/TRACON. FAA reports this annually to the state's EPCRA database in accordance with state and federal regulations (ADEC 2025b).

5.3.2.4 Toxic Substances Control Act

ACM has been identified at the existing ATCT/TRACON in the base building as well as the second and third floors. The ACM in these locations includes fire door cores, floor tile and mastic, sink undercoating, joint compound, wall panel mastic, and built-up roofing material (ADOT&PF 2020b). The existing ATCT/TRACON has a Facility Asbestos Operations and Maintenance Plan (ADOT&PF 2020b) for the purpose of minimizing employee exposure to asbestos. The Plan outlines practices to maintain ACM in good condition, confirm proper cleanup of and prevent future release of asbestos fibers and monitor the condition of existing ACM.

No LBP or PCB surveys have been conducted at the existing ATCT/TRACON; the presence of these materials at the building is unknown, however, due to the age of the building, lead and/or PCBs may be present.

5.3.2.5 Solid Waste

Solid waste generated at FAI is disposed of at the South Cushman Landfill, a Class I Landfill owned and operated by the FNSB located at 455 Sanduri Street in Fairbanks, Alaska. The landfill serves the population of the FNSB and has been in operation since 1963. The landfill accepts ash, construction and demolition materials, inert waste, municipal waste, regulated and non-regulated ACM, sewage solids, and treated medical waste (ADEC 2024j). Municipal solid waste disposal areas in the FNSB are projected to reach capacity in 2080, and the cell that accepts construction and demolition material is projected to reach capacity in 2036 (FNSB 2023).

5.4 Historical, Architectural, Archaeological, and Cultural Resources

5.4.1 Regulatory Setting

The term "historical, architectural, archaeological, and cultural resources" refers to tangible remains and material evidence resulting from past human activity and/or specific locations of historic or traditional importance. These resources include prehistoric and historic archaeological sites, structures, buildings, districts, landscapes, or other locations or objects determined to be important for scientific, traditional, religious, or societal reasons. The list is varied and ranges from 20th century buildings and structures to Native American and Alaska Native sacred sites and Traditional Cultural Properties.

5.4.1.1 National Historic Preservation Act

Potential cultural resource impacts are addressed by Section 106 of the National Historic Preservation Act (NHPA) of 1966 (54 USC § 300101 *et seq.*), which requires federal agencies to consider effects to “historic properties” from an undertaking. Historic properties are defined (54 USC § 300308) as cultural resources that are either listed or eligible for listing in the National Register of Historic Places (NRHP). An undertaking is defined (36 CFR § 800.16[y]) as a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency.

The Section 106 process is set forth at 36 CFR § 800, “Protection of Historic Properties.” Other pertinent legislation is listed at FAA Order 1050.1F and includes:

- The Archaeological and Historic Preservation Act of 1974
- The Archaeological Resources Protection Act of 1979
- The Native American Graves Protection and Repatriation Act of 1990
- The Antiquities Act of 1906
- The Historic Sites Act of 1935
- The American Indian Religious Freedom Act of 1978
- The Public Buildings Cooperative Use Act of 1976
- EO 13006, *Locating Federal Facilities on Historic Properties in Our Nation’s Central Cities*
- EO 13007, *Indian Sacred Sites*

Per FAA Order 1050.1F, FAA coordinates NEPA compliance with its NHPA responsibilities to make sure that historic properties and cultural resources are given adequate consideration during project planning. This analysis incorporates NHPA Section 106 review into the NEPA process.

The cultural resources discussed in this section include those that meet the specific criteria of the NHPA and associated regulations.

5.4.2 Affected Environment

As defined under 36 CFR § 800.16(d), the Area of Potential Effect (APE) is the geographic area within which an undertaking may directly or indirectly cause changes in the character or use of historic properties. The APE is determined by the scale and nature of the undertaking and may be different for different kinds of effects caused by various project activities. For the purposes of this analysis, the term APE is synonymous with ROI.

5.4.2.1 Area of Potential Effect

The APE is found on USGS topographic map quad Fairbanks D-2, within Township 001 South, Range 001 West, Sections 18 and 19, and Township 001 South, Range 002 West, Sections 24 and 25, Fairbanks Meridian.

Much of the APE, including the entire existing ATCT/TRACON demolition footprint, much of the utilities right-of-way, and more than one-quarter of the new ATCT/TRACON footprint is within areas of previous disturbance, construction fill, and pavement (Ockerman and Gaines 2024).

The APE includes staging areas for construction and demolition. Material would be sourced from established local commercial material sources in the FNSB. Waste generated by project construction and demolition would be disposed of as commercial loads at the Fairbanks Landfill or another appropriate

facility. Haul routes would use previously established ADOT&PF roads. No new material sources, disposal sites, or haul routes would be established for the undertaking.

5.4.2.2 Historic Properties

The entire APE has been surveyed and inventoried for cultural resources (Ockerman and Gaines 2024). No such resources are present at the proposed new ATCT/TRACON site.

The nearest historic property to the proposed new ATCT/TRACON site is the Fairbanks FAA Facility, an NRHP-eligible historic district (HD) consisting of six contributing elements, registered with the Alaska State Office of History and Archaeology as site FAI-01291. The HD is approximately 820 feet from the northernmost utilities run and none of the HD contributing elements are within the new ATCT/TRACON or utilities areas of construction disturbance.

5.4.2.3 Traditional Sites

Six federally recognized Tribes may have ancestral ties to FAI lands: (1) Healy Lake Village; (2) Northway Village; (3) Native Village of Dot Lake; (4) Native Village of Tanacross; (5) Native Village of Tetlin; and (6) Nenana Native Association. FAA distributed project notification and scoping materials to these Tribes on a government-to-government basis, and invited consultation and comment as part of the Section 106 process (Appendix A). Consultation efforts will continue throughout the environmental review process, including distribution of the Draft EA and opportunities for review and comment.

FAA also provided project notification and scoping materials to additional Alaska Native organizations including Doyon, Limited; Tanana Chiefs Conference; Fairbanks Native Association; Cook Inlet Region, Inc.; and Denakkanaaga (Appendix B).

Although precontact archaeological sites are unknown from FAI lands, the linguistic evidence shows that this strategic location at the confluence of the Chena and Tanana Rivers was well known to the Athabaskan people (Smith and Kari 2023). The slough adjacent to the southern margin of the proposed new ATCT/TRACON site is known as *Thoyh Tl'esr No'* ("Mucky Sand Stream") in the Lower Tanana dialect and *Thaayh Tl'es Na'* ("Muddy Stream") in the Middle Tanana Dialect. Further afield, slightly more than 2 miles from the APE, the confluence of the Chena and Tanana Rivers is referred to as *Ch'eno' Xwdochaqet* ("Chena Stream Mouth"). The Chena pumping station, on the right bank of the Chena River 1.8 miles from the APE, is called *Tu Del'anhde* ("Where Water is Gathered"). More than 2 miles to the northwest of the APE, near the Chena Marina, is a location known as *K'eth Tsula' T'ox* in Middle Tanana and *K'eth Tsuul T'ox* in Lower Tanana. Literally translating to "Beneath Slender Outlet," this may refer to a precontact village site. Nearby, at Chena Marina, is *K'eth Tsuul No'* which has the same translation ("Beneath Slender Stream") and may refer to an old side stream or branch of the Chena River (Smith and Kari 2023).

5.5 Land Use

"Land use" refers to either natural conditions or the types of human activity occurring on a parcel. In many cases, land use descriptions are codified in local zoning laws; however, there is no nationally recognized convention or uniform terminology for describing land use categories. Land use compatibility is dictated by compliance or consistency with applicable land use or zoning regulations or guidelines for the project and adjacent sites (FAA 2023b).

5.5.1 Regulatory Setting

In 1948, the U.S. Congress authorized funding for the construction of two “international type” airports in two most populous Alaskan cities – one to be located in Fairbanks and the other in Anchorage. Originally, both airports were owned and operated by the federal government; when Alaska became a state in 1959, ownership of both airports was transferred from the federal government to the State of Alaska (ANC 2014).

The FNSB Regional Comprehensive Plan (FNSB 2005) provides the framework for land use decisions and serves as the basis for land development ordinances in the FNSB.

5.5.2 Affected Environment

5.5.2.1 Existing Land Use

FAI can be divided generally down the middle by a fence separating the runway on the west side, which serves commercial air carriers and heavy cargo aircraft, from the runways and float pond on the east side, which are used by air taxis and non-air-carrier GA aircraft (ADOT&PF 2014).

Land on the west side of FAI is occupied by Runway 2L/20R, the main passenger terminal, parking lots, cargo aprons, and leased lots (ADOT&PF 2019b). Airlines with leased space in the terminal include Alaska Airlines, Delta Air Lines, Ravn Alaska, Shared Services Aviation, 40-Mile Air, and Air North. United Airlines, Frontier Airlines, Condor, and Japan Airlines pay for terminal space on a per-turn basis (ADOT&PF 2014).

Land on the east side of FAI is occupied by three runways – Runway 2R/20L, used by GA; Runway 2W/20W, the float pond; and Runway 2/20, a gravel ski strip – as well as taxiways, tiedowns, private hangars, an air campground, aircraft maintenance and storage, flight training, air taxi/charter businesses, and federal and state agency facilities, including the existing ATCT/TRACON, which houses a pilot’s lounge, restrooms, showers, and public phones. Passenger terminal facilities on the east side are spread out amongst individual operators, including Wright Air, Warbelow’s, Larry’s Flying Service, and Air Arctic/Northern Alaska Tour Company (ADOT&PF 2014). Airport land east of University Avenue South includes the FAA Flight Service Station, two parking lots, the proposed new ATCT/TRACON site, and mostly undeveloped land slated for long-term airport expansion (ADOT&PF 2019b).

5.5.2.2 Adjacent Land Use

The FNSB Regional Comprehensive Plan (2005) categorizes land use based on the major activities identified for a given area. The FAI property itself, including the undeveloped land on the east side, is categorized as “Light Industrial.” Table 5-4 describes land use adjacent to the ROI.

Table 5-4 Adjacent Land Use

DIRECTION	LAND CATEGORY	DESCRIPTION	LAND USE
North	Urban	Contains the most intensive residential, commercial, and industrial development in the FNSB.	Mitchell Expressway; undeveloped FAI land owned by FAA; private residences; UAF; Chena River.
East	Light Industrial	Characterized by activities such as manufacturing, storage, wholesaling, repair maintenance, and related office functions which do not involve handling explosives or other hazardous materials or result in emissions of	Undeveloped FAI land owned by ADOT&PF; privately owned industrial and commercial sites outside airport property along Van Horn Road.

Table 5-4 Adjacent Land Use

DIRECTION	LAND CATEGORY	DESCRIPTION	LAND USE
		noise, air, chemicals, or other pollutants detrimental to surrounding land uses.	
South	Reserve	To be reserved under public ownership until sufficient data are available to make definitive planning judgments, but may be used for permitted mining, hunting, fishing, trapping, recreation, forestry, and agricultural activities.	Tanana River.
	Military Land	Federal property allowing military activity.	U.S. Army Fort Wainwright.
West	Perimeter	Contains primarily residential developments.	Partially developed FAI land owned by ADOT&PF; South Cushman ponds; mixed residential/commercial property; Chena River.

Notes:

For definitions, refer to the Acronyms and Abbreviations list (Appendix J).

Source: FNSB 2005; U.S. Bureau of Land Management (BLM) 2024.

5.5.2.3 Future Land Use

The existing footprint of FAI is heavily developed, and future airport expansion to the north, south, and west is precluded by the Mitchell Expressway, the Tanana River, and airport facilities. ADOT&PF-owned land east of University Avenue South is mostly undeveloped and reserved for long-term airport expansion (ADOT&PF 2019b).

Long-term airport development (beyond 20 years) is expected to expand eastward into the undeveloped portion of the FAI property; however, because master planning documents typically guide development over a 20-year period, there is no information available regarding future long-term expansion.

5.6 Natural Resources and Energy Supply**5.6.1 Regulatory Setting**

Natural resources are materials from the earth that are used to support life and meet people's needs by supplying food, fuel, and raw materials to produce goods. Energy supply refers to natural resources such as coal for electricity, natural gas for heating, and fuel for aircraft or other ground vehicles. Consumption of these depletable natural resources and use of energy supplies may result from implementing a proposed action or alternative. Consideration should be given to the potential expenditure of natural resources and energy required to carry out a proposed action or alternative; design standards and sustainability principles for conservation of resources; and the sources of such materials in the ROI.

FAA Order 1050.1F states that any airport improvement project "will be examined to identify any proposed major changes in stationary facilities or movement of aircraft and ground vehicles that would have a measurable effect on local supplies of energy or natural resources." In the event of potential impacts being identified, coordination with environmental stakeholders and energy procedures is required.

EO 13123, *Greening the Government Through Efficient Energy Management*, encourages the expansion of renewable energy use and requires federal agencies to reduce petroleum and energy use, air emissions, and water consumption.

The Alaska Department of Natural Resources (ADNR) Division of Mining, Land, and Water manages all state-owned land, water, and natural resources and regulates the development, operation, and reclamation of mining activities on state and private lands as well as the use of surface water and groundwater for which water rights have not been secured. Permit programs are available for both activities.

5.6.2 Affected Environment

The following utility providers were considered during preparation of this EA (FAA 2024c-e):

- VetJet Fuels LLC as the major fuel supplier
- Golden Valley Electric Association as the electricity supplier
- Interior Gas Utility as the natural gas supplier
- FTI Harris as the telecommunications provider
- College Utilities Corporation and Golden Heart Utilities (both subsidiaries of Fairbanks Sewer and Water, Inc.) as the water and sewer utility providers

The 2014 FAI Master Plan states that there was plenty of piping and potable water to accommodate substantial development at the airport (ADOT&PF 2014). Fuel delivery records from January to September 2024 show that the ATCT consumed approximately 5,800 gallons of heating oil and the TRACON consumed 5,600 gallons of heating oil (FAA 2024e). FAI also uses high efficiency boilers to reduce operational energy consumption (FAA 2024c). Automatic faucets are installed in public restrooms to help reduce overconsumption of potable water as well.

5.7 Noise and Noise-Compatible Land Use

5.7.1 Regulatory Setting

Sound can be defined as a physical phenomenon that consists of vibrations that travel through a medium, such as air, and are sensed by the human ear. Noise is defined as any sound that is undesirable, intrusive, or intense enough to cause hearing damage. Proper noise analysis requires assessing a combination of physical measurements of sound, physical and physiological effects, psycho-acoustic effects, and socio-acoustic effects. Proper analysis is required as the responses of different individuals to similar noise events varies and can be influenced by the type of noise, perceived importance, time of day, type of activity, and sensitivity of the individual. Noise may also affect wildlife through disruption of nesting, foraging, migration, and other life cycle activities.

Sound varies by both intensity and frequency. Sound pressure level, described in decibels (dB), is used to quantify sound intensity. The dB is a logarithmic unit that expresses the ratio of a sound pressure level to a standard reference level. Hertz are used to quantify sound frequency. The human ear responds differently to different frequencies. “A-weighting,” measured in dBA, approximates a frequency response expressing the perception of sound by humans. “C-weighting” is typically applied to impulsive sounds such as a sonic boom or ordinance detonation and is denoted by the units dBC. The noise metrics listed below have been developed to further describe noise:

- **Equivalent Sound Level ($L_{eq(t)}$)** – the average sound level in dB of a given event or period of time (“t”).

- **Day-Night Average Sound Level (DNL)** – the average sound energy in a 24-hour period with a penalty added to the nighttime levels. Noise events occurring between 10:00 P.M. and 7:00 A.M are assessed with a 10-dB penalty when calculating DNL.

5.7.1.1 Aviation Safety and Noise Abatement Act

The compatibility of existing and potential land uses in the vicinity of an airport is based on the airport's noise impacts. The Aviation Safety and Noise Abatement Act (ASNA) of 1979 (49 USC § 44715 and 49 USC § Subchapter II) established a noise measurement system as well as noise standards for air carriers and methods to reduce aircraft noise impacts in the vicinity of airports. Under the ASNA, airports can produce noise exposure maps that depict the noise contours around the airport and the type of land use they overlap. Noise level compatibility is set by the local county or municipal authority and varies by location.

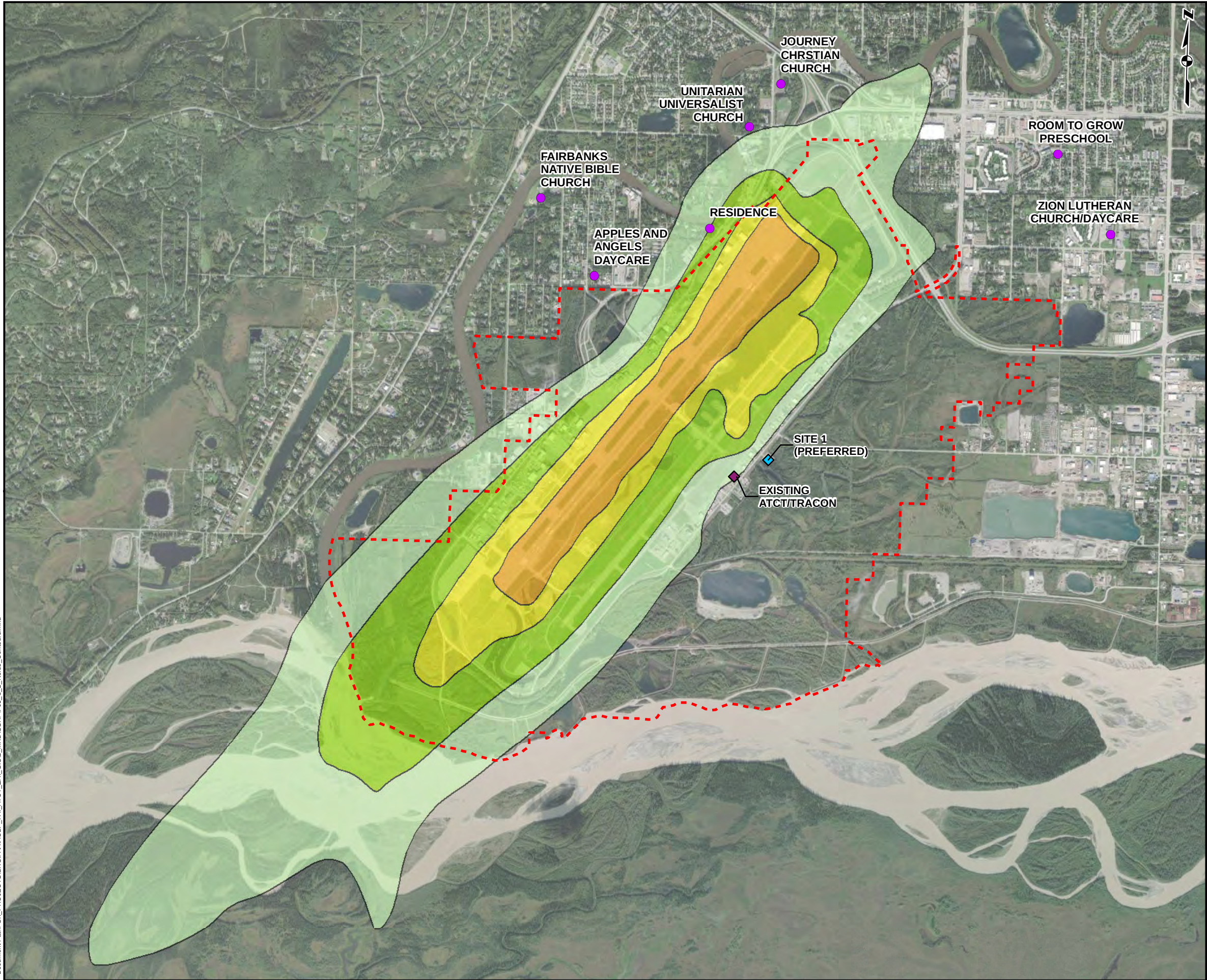
5.7.2 Affected Environment

The ROI for noise impacts is FAI and land uses in the vicinity of the airport. The FNSB has classified the FAI property as a Light Industrial Zone. Land adjacent to FAI is a combination of land use zones and includes Heavy Industrial, Light Commercial, General Commercial, Single Family Residential, Multiple-family Residential, Rural Residential, General Use, and Outdoor Recreational. Pursuant to 40 CFR § 150 (Airport Noise Compatibility Planning), a noise study was conducted in 1988 to establish an Airport Noise-Sensitive Area overlay zone on property around the airport; this designation informs existing and potential property owners of aircraft noise that may affect these properties (ADOT&PF 2014). One noise-sensitive receptor (a residence) falls within the DNL 65-dBA aircraft noise contour established for FAI (Figure 5-8-1) and is the closest noise-sensitive receptor to the Proposed Action. Sensitive noise receptors identified within a 2-mile radius of the Proposed Action are presented in Table 5-5 and Figure 5-8-1. As the Proposed Action would not cause an increase in operations or a change in flight patterns at the airport, the impacts of airborne aircraft noise are not analyzed. Only the noise impacts from the demolition of the existing ATCT/TRACON and the construction and operation of the new ATCT/TRACON are analyzed further.

Table 5-5 Sensitive Noise Receptors within Two Miles of the Proposed Action

SENSITIVE RECEPTOR	ADDRESS	APPROXIMATE DISTANCE FROM SITE 1
Residence	4570 Elliott Lane	1.13 miles
Apples and Angels Daycare	5171 Aeronca Avenue	1.21 miles
Unitarian Universalist Church	4448 Pikes Landing Road	1.62 miles
Fairbanks Native Bible Church	6360 Fairchild Avenue	1.65 miles
Journey Christian Church	1201 Hoselton Road	1.75 miles
Zion Lutheran Church/Daycare	2982 Davis Road	1.99 miles
Room to Grow Preschool	3283 Adams Drive	2.0 miles

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ENVIRONMENTAL ASSESSMENT FOR PROPOSED
AIRPORT TRAFFIC CONTROL TOWER/TERMINAL
RADAR APPROACH CONTROL FACILITY
REPLACEMENT
FAIRBANKS INTERNATIONAL AIRPORT, ALASKA
**AIRFIELD NOISE CONTOURS - FAIRBANKS
INTERNATIONAL AIRPORT**

Legend

- Existing ATCT/TRACON
- ATCT Siting Alternative
- Sensitive Noise Receptors
- Fairbanks International Airport Boundary

Airfield Noise Fairbanks International Airport

- 60 db
- 65 db
- 70 db
- 75 db

Abbreviations

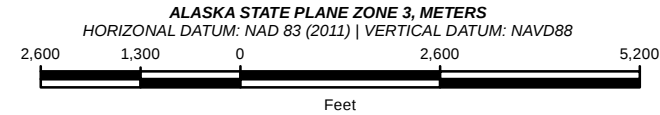
- ATCT Airport Traffic Control Tower
- dB decibel
- FIA Fairbanks International Airport
- TRACON Terminal Radar Approach Control Facility

Notes

- 1. For conceptual purposes only. All locations are approximate.

References

- 1. Fairbanks North Star Borough. 1998. Ordinance No. 98-054, An Ordinance Amending Title 18 of the Fairbanks North Star Borough Code of Ordinances Providing for an Airport Noise Sensitive Area Overlay Designation. Noise contour data (1996) accessed online via FNSB GIS at <https://www.fnsb.gov/1108/FNSB-G>. November 19.
- 2. Basemap source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.



PROJECT No.: ACBP01	DATE: 7/15/2025	FIGURE: 5-8-1
P.M.: M.H.	DRAWN: R.R.	

5.8 Socioeconomics and Children’s Environmental Health and Safety Risks

5.8.1 Regulatory Setting

Under NEPA, when economic or social and natural or physical environmental effects are interrelated, these effects on the human environment should be discussed.

The socioeconomic environment is characterized by a composite of several interrelated and non-related factors. Indicators of economic conditions for a geographic area can include demographics, median household income, unemployment rates, employment data, and housing. Employment data identify employment by industry or trade and unemployment trends. Data on personal income in a region are used to compare the effects of jobs created or lost as a result of a proposed action. Data on industrial, commercial, and other sectors of the economy provide baseline information about the economic health of a region. Changes in demographic and economic conditions are typically accompanied by changes in other community components such as housing availability, education, and the provision of installation and public services. EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, enacted 21 April 1997, refers to environmental health risks or safety risks that are attributable to products or substances that the child is likely to come in contact with or ingest (food, water, air, soil). The analysis required for EO 13045 evaluates environmental activities, programs, and policies that could result in adverse health or environmental conditions on children.

5.8.2 Affected Environment

The ROI for socioeconomics and children’s environmental health and safety risks is the FNSB, which contains the City of Fairbanks, the City of North Pole, and surrounding areas. National and statewide data are provided for comparative purposes. As indicated in Table 5-6, the FNSB population in 2023 was estimated at 94,840, compared to the State of Alaska population of 733,406 (U.S. Census Bureau [Census] 2024a). The FNSB represents 13% of the statewide population and has been declining since 2014 with periodic influxes due to the military presence, natural resource development, student enrollment at UAF, and the seasonality of the hospitality and tourism industries (Fairbanks Economic Development Corporation [FEDC] 2024). The overall FNSB population decreased by 2.8% between 2010 and 2023, while the statewide population increased by 3.2% during the same period (Census 2024a).

Table 5-6 Area Population Comparisons 2010-2023

AREA	2010	2020	2023	% CHANGE
FNSB	97,581	95,655	94,840	-2.8%
Alaska	710,231	733,391	733,406	+3.2%

Notes:

For definitions, refer to the Acronyms and Abbreviations list (Appendix J).

Source: Census 2024a.

Table 5-7 Employment by Industry

CATEGORY	FNSB	ALASKA
Population 16 years and over in the labor force	52,071	385,948
Percent of labor force in the Armed Forces	12.8%	4.0%
Population of employed persons in the civilian labor force	42,651	362,965
Percent Employed Persons in Civilian Labor Force by Industry		
Agriculture, forestry, fishing, hunting, and mining	4.5%	5.3%
Construction	7.1%	7.3%
Manufacturing	3.6%	4.2%
Wholesale trade	1.3%	2.3%
Retail trade	12.7%	10.3%
Transportation and warehouse, and utilities	7.3%	8.0%
Information	1.2%	1.5%
Finance and insurance and real estate and rental and leasing	3.0%	3.0%
Professional, scientific, and management, and administrative and waste management services	10.4%	8.6%
Educational services, and health care and social assistance	28.9%	25.4%
Arts, entertainment, recreation, and accommodation and food services	7.1%	8.2%
Other services, except public administration	5.1%	4.6%
Public administration	7.7%	11.2%

Notes:

For definitions, refer to the Acronyms and Abbreviations list (Appendix J).

Source: Census 2024b, 2024c.

Overall economic trends show positive growth in the FNSB area (Table 5-7). Employment increased for all sectors between 2022 and 2023, with the exception of the Professional and Business Services Sector, which decreased by 2.2% (FEDC 2024). Population decline and Alaskans aging out of the workforce have led to statewide labor shortages, creating obstacles for recruitment and retention. Despite these trends, all employment sectors are anticipated to grow or hold steady (Alaska Department of Labor and Workforce Development [ADOLWD] 2024).

Federal, state, and local government jobs make up the largest portion of employers in the FNSB (28%), but this percentage does not include active-duty military personnel stationed at Department of Defense installations within the FNSB. The next largest employer is the health care industry (14%), followed by hospitality and leisure (12%) and retail services (12%; FEDC 2024). The FNSB labor force increased by 411 jobs in 2023, and total employment earnings for that year increased by \$216,041,861. The average monthly wage also increased approximately 7.5% above 2022 wages to \$5,447 (FEDC 2024).

In 2024, FNSB employment rates were projected to grow by approximately 1.4% through the end of the year; slightly less than the Alaska predicted annual growth rate of 1.7% during the same period (ADOLWD 2024). These figures are significantly higher than the national employment annual growth rate, which is expected to be around 0.4% annually through 2033 (U.S. Bureau of Labor Statistics 2024). The median household income in the FNSB is \$86,391 which is almost identical to the state’s median household income of \$86,631 (Census 2024d, 2024e). Median household income for the U.S. is \$77,719 (Census 2024f).

There are 32 schools in the Fairbanks North Star Borough School District (FNSBSD). Approximately 12,400 students were enrolled during the 2023-2024 school year, including 6,116 elementary students, 1,901 middle school students, and 4,436 high school students (FNSBSD 2024a, 2024b). The district employed approximately 1,500 people during the same school year (FNSBSD 2024a). College education, apprenticeships, and skilled labor training opportunities are available through UAF, the UAF Community and Technical College, Fairbanks Pipeline Training Center, and other local institutions.

Fire response and law enforcement services are provided by various city governments in the ROI. The Fairbanks Fire Department, North Pole Fire Department, Moose Creek Fire Department, and Salcha Fire Department each provide fire response services in the FNSB. Major public health facilities in the ROI include Fairbanks Memorial Hospital and the Denali Center.

According to the Census information summarized in Table 5-8, the estimated percentage of persons below the federal poverty level in 2023 in the FNSB was 7.6%, compared to 10.4% in Alaska. Both of these percentages are below the national average (Census 2024a). FNSB demographic estimates for 2023 indicate that 68.1% of the population is White alone and not Hispanic or Latino, 8.2% of the population is Alaska Native/American Indian, 5.3% are Black or African American, 3.4% are Asian, and 0.7% are Native Hawaiian or of other Pacific Islander ancestry. Approximately 7.5% of the population is two or more races and 8.8% are Hispanic or Latino (Census 2024a). Minority populations in the FNSB total approximately 33.9% (Census 2024a). Nearly 90% of the population within the ROI speaks English (Census 2024a).

An estimated 23.8% of the population is 18 years old or younger, which is consistent with the state’s overall child-age demographics (23.9%). Persons in the elderly demographic (those over 65 years in age) make up 13.1% of the FNSB’s population, which is slightly less than the state’s elderly population (14.4%) and less than the U.S. average (17.7%; Census 2024a).

Table 5-8 Demographic and Population Characteristics

CATEGORY	FNSB	ALASKA	UNITED STATES
Population	94,840	733,406	334,914,895
Percent Population Below Poverty Level	7.6%	10.4%	11.1%
Percent Children	23.8%	23.9%	21.7%
Percent Elderly	13.1%	14.4%	17.7%
Race			
White alone (not Hispanic or Latino)	68.1%	59.0%	58.4%
Black	5.3%	3.7%	13.7%
Alaska Native or Native American	8.2%	15.6%	1.3%
Asian	3.4%	6.8%	6.4%

Table 5-8 Demographic and Population Characteristics

CATEGORY	FNSB	ALASKA	UNITED STATES
Native Hawaiian or Pacific Islander	0.7%	1.7%	0.3%
Two or More Races	7.5%	8.1%	3.1%
Hispanic or Latino	8.8%	7.5%	19.5%

Notes:

For definitions, refer to the Acronyms and Abbreviations list (Appendix J).

Source: Census 2024a.

5.9 Visual Effects

5.9.1 Regulatory Setting

FAA Order 1050.1F directs FAA to consider the extent to which lighting associated with a proposed action creates an annoyance or interferes with normal activities among people in the vicinity. The Order also directs FAA to consider the extent to which the proposed development contrasts with the existing environment and whether the agency considers this contrast objectionable, based on public input. Visual effects are categorized by FAA as (1) effects from light emissions and (2) effects on visual resources and visual character (FAA 2023b). Light emissions include any light that emanates from a light source into the surrounding environment, such as airfield and apron flood lighting, navigational aids, and parking facility and roadway lighting. Visual resources include buildings, sites, Traditional Cultural Properties, and other natural or manmade landscape features that are visually important or have unique characteristics. Visual character refers to the overall visual makeup of the existing environment where the proposed action or alternative would be located. For example, areas near dense populations generally have an urban visual character, whereas less developed areas could have a visual character defined by the surrounding landscape features such as open grass fields or forests.

5.9.2 Affected Environment

FAI is located approximately 4 miles southwest of the Fairbanks central business district adjacent to the local streets Airport Way and Airport Industrial Road to the west, Airport Perimeter Road to the south, University Avenue South to the east, and Highway 3 to the north.

The area to the north, northeast, and northwest of the airport is primarily urban and a mix of residential and commercial land uses. The area to the east of the airport includes wetlands, industrial, and commercial sites. The area to the south and southeast of the airport is mostly undeveloped reserve land, and a buffer between the airport and U.S. Army Fort Wainwright property. The area west of the airport is a mix of residential and commercial land uses.

Based on a review of trail and bike maps, there are bike paths (a shared-use path, sidewalk connector, and road shoulder) adjacent to the airport along Airport Way that end in a loop at the main passenger terminal (Fairbanks Cycle Club 2024). There are no public walking routes around FAI (Alaska.org 2024).

Lighting in the area includes existing airport lights, street lighting for the surrounding roads, lights from local businesses and residences, and general ambient light from Fairbanks.

5.10 Water Resources

5.10.1 Regulatory Setting

Water resources are surface waters and groundwater that are important in providing drinking water and supporting recreation, transportation and commerce, industry, agriculture, and aquatic ecosystems. Wetlands, floodplains, surface waters, and groundwater do not function as separate and isolated components of the watershed, but rather as a single, integrated natural system. Disruption of any one part of this system can have consequences for the functioning of the entire system.

5.10.1.1 Wetlands

For regulatory purposes under the Clean Water Act (CWA) of 1972 (33 USC § 1251-1387), the term “wetlands” means areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. The CWA establishes the basic structure for regulating the discharge of pollutants into waters of the United States (WOTUS), which includes wetlands. The two primary sections of the CWA relating to wetland impacts and permitting are Section 404 and Section 401.

Section 404 establishes a program to regulate the discharge of dredged or fill material into WOTUS, including wetlands. Any federal agency planning to work in WOTUS must obtain a Section 404 permit from the U.S. Army Corps of Engineers (USACE) before initiating any regulated activity. USACE is the lead agency, in partnership with EPA, responsible for implementation of the Section 404 program in Alaska.

Section 401 requires that a water quality certificate be obtained prior to initiating activities to verify the project does not violate state or tribal water quality standards. ADEC Division of Water issues a Certificate of Reasonable Assurance following a Pre-Filing Meeting and receipt of the federal permit application and supporting materials (ADEC 2024k).

EO 11990, *Protection of Wetlands*, requires federal agencies to “avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new constructions in wetlands wherever there is a practicable alternative.” DOT Order 5660.1A, *Preservation of the Nation’s Wetlands*, implements the guidelines set forth in EO 11990. Transportation facilities should be planned, constructed, and operated to assure the protection and enhancement of wetlands to the fullest extent practicable.

FAA assessed potentially jurisdictional waters (those that fall under USACE jurisdiction) based on the “Revised Definition of ‘Waters of the United States’” (“2023 Rule”). The Final Rule became effective on 20 March 2023 and was amended on 29 August 2023 to conform key aspects of the regulatory text to the U.S. Supreme Court’s decision in the case of *Sackett v. Environmental Protection Agency*. The so-called Conforming Rule, “Revised Definition of ‘Waters of the United States’; Conforming,” became effective on 8 September 2023 and defines WOTUS as follows:

1. Traditional navigable waters, the territorial seas, and interstate waters (“waters”);
2. Impoundments of WOTUS (“impoundments”);
3. Tributaries of “waters” and “impoundments” as defined above that are relatively permanent, standing, or continuously flowing bodies of water (“jurisdictional tributaries”);
4. Wetlands adjacent to “waters” as defined above;

5. Wetlands adjacent to and with a continuous surface connection to “impoundments” or “jurisdictional tributaries” when the jurisdictional tributaries meet the relatively permanent standard (“jurisdictional adjacent wetlands”); or
6. Intrastate lakes and ponds, streams, or wetlands not identified above that are relatively permanent, standing, or continuously flowing bodies of water with a continuous surface connection to “waters” or “jurisdictional tributaries” as defined above.

Further, wetlands are considered WOTUS and are identified by EPA and USACE as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas” (40 CFR § 120.2[c][1]).

5.10.1.2 Floodplains

Floodplains are lowland areas adjoining inland and coastal waters that are periodically inundated by flood waters, including flood-prone areas of offshore islands. Floodplains are often discussed in terms of the *100-year flood*, also known as the *base flood*. The 100-year flood is a flood having a 1% chance of occurring in any given year. Floodplains are valued for their natural flood and erosion control properties, enhancement of biological productivity, and socioeconomic benefits and functions.

EO 11988, *Floodplain Management*, requires federal agencies to avoid, to the extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of 100-year floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative. DOT Order 5650.2, *Floodplain Management and Protection*, implements the guidelines set forth in EO 11988 and states that DOT agencies should confirm that proper consideration is given to avoid and mitigate adverse floodplain impacts in agency actions. To comply with these requirements, all FAA actions must avoid floodplains if a practicable alternative exists; if no practicable alternative exists, actions in a floodplain must be designed to minimize adverse impacts to the floodplain’s natural and beneficial values.

The administration of the Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP) has been delegated to the FNSB, which has established floodplain management regulations in Title 15, Chapter 4 of the Borough Code to regulate development within a special flood hazard area (SFHA) by establishing methods, practices, and construction standards for minimizing flood damage. Title 15 regulations describe construction requirements for new development occurring in FEMA flood hazard areas; the FNSB’s continued participation in the NFIP is contingent upon adherence to these requirements. Under Title 15, an FNSB floodplain permit is required prior to construction.

5.10.1.3 Surface Waters

Surface waters include streams, rivers, lakes, ponds, estuaries, and oceans. Federal agencies are required to comply with the provisions of the CWA for any action that may affect water quality, including the control of any discharge into surface or groundwater and the prevention or minimization of loss of wetlands. Agencies must also comply with the Fish and Wildlife Coordination Act (FWCA) of 1934 (16 USC § 661–666c) if the proposed action impounds, diverts, drains, controls, or otherwise modifies the waters of any stream or other water body. Section 1424(e) of the Safe Drinking Water Act (SDWA) of 1947 (42 USC § 300f *et seq.*) requires consultation with EPA if a proposed action has the potential to contaminate an aquifer designated by EPA as a sole or principal source of drinking water for the area. State regulations that protect surface waters can be found in 18 AAC 70, *Water Quality Standards* and 18 AAC 80, *Drinking Water*.

The CWA established federal limits, through the National Pollutant Discharge Elimination System (NPDES), on the amounts of specific pollutants that are discharged to surface waters to restore and maintain the chemical, physical, and biological integrity of the water. Section 401 of the CWA requires state certification for an NPDES permit; in Alaska this is the Alaska Pollutant Discharge Elimination System (APDES) permit. The APDES stormwater program requires facility owners and operators with stormwater discharges associated with applicable industrial activities to obtain a Multi-Sector General Permit (MSGP). In addition, construction site operators engaged in activities that disturb 1 acre or more are required to obtain a Construction General Permit (CGP) for Stormwater Discharge for Large and Small Construction Activities. The CGP mandates the use of best management practices (BMP) to verify that the facility's operations and soil disturbed during construction do not pollute nearby water bodies. Site/facility operators must prepare a Notice of Intent to discharge stormwater and a Stormwater Pollution Prevention Plan (SWPPP) to be implemented during construction and throughout facility operations.

5.10.1.4 Groundwater

Groundwater is subsurface water that occupies the space between sand, clay, and rock formations. The term "aquifer" is used to describe the geologic layers that store or transmit groundwater to wells, springs, and other water sources. Federal actions affecting groundwater are primarily governed by the SDWA of 1974 (42 USC § 300f *et seq.*), which prohibits federal agencies from funding actions that would contaminate an EPA-designated sole source aquifer or its recharge area. State regulations that protect groundwater can be found in 18 AAC 80, *Drinking Water*.

5.10.1.5 Wild and Scenic Rivers

The Wild and Scenic Rivers Act (WSRA) of 1968 (16 USC § 1271 *et seq.*) established the National Wild and Scenic Rivers System (WSR) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. Rivers may be designated by Congress, or, if certain requirements are met, by the Secretary of the Interior. Each river is administered by either a federal or state agency. Designated segments need not include the entire river and may include tributaries. For federally administered rivers, the designated boundaries generally average 0.25 miles on either bank in the lower 48 states and 0.5 miles on rivers outside national parks in Alaska to protect river-related values (WSR 2024).

The Nationwide Rivers Inventory (NRI) is a listing of more than 3,200 free-flowing river segments in the U.S. that are believed to possess one or more "outstandingly remarkable" natural or cultural values judged to be at least regionally significant. NRI river segments are potential candidates for inclusion in the WSR.

5.10.2 Affected Environment

5.10.2.1 Wetlands

The majority of FAI consists of uplands that are largely the result of construction of the existing embankments. Wetlands mapped by the USFWS National Wetlands Inventory (NWI) are primarily concentrated on the eastern side of the FAI property (ADOT&PF 2014). The NWI indicates that approximately 3.3 acres of the proposed 6-acre new ATCT/TRACON site consist of undisturbed freshwater forested/shrub wetlands (USFWS 2024a). The soil mapped in the area is slightly decomposed plant material at the surface, poorly drained, and clayey. The topography onsite and in the surrounding area is generally flat (FAA 2023c) with elevations ranging from 429 to 435 feet above sea level. Potentially impacted wetlands lie at the northwest edge of the forested and wetland area on the southeast side of University Avenue South. Based on a desktop review of the NWI-mapped area and local topographic maps,

the proposed site does not contain any inflow or outflow points for wetlands in the area or rare wetland types. The area is highly vegetated, suggesting that wildlife habitat and filtration are the primary function of the wetlands. Drainage from the wetlands within the proposed new site appears to be retained onsite.

The non-wetland water nearest to the proposed new site is a wet slough to the south. A drainage ditch runs along the site's western margin between University Avenue South and the proposed new site. This ditch contains no flowing water and any drainage from adjacent wetlands likely flows only a short distance before being retained within the ditch. The drainage ditch between the proposed new site and University Avenue South does not have a free and open connection to navigable waters.

FAA conducted a review of downstream drainages and their potential connection to WOTUS to inform the USACE jurisdictional determination for mapped waters and wetlands on the proposed site. This mapping review was completed as supplemental documentation for inclusion in the Approved Jurisdictional Determination (AJD) analysis by USACE and EPA. The purpose of the review was to assess whether onsite water resources draining to offsite water features provide "a continuous surface connection" in accordance with current USACE jurisdictional criteria under the Conforming Rule. In a letter dated 10 April 2025, USACE issued an AJD stating that the project area does not contain WOTUS and therefore a Section 404 permit is not required for activities occurring in the project area (Appendix A).

5.10.2.2 Floodplains

Flooding of the Chena River is controlled largely by the Moose Creek Dam at the Chena River Lakes Flood Control Project approximately 17 miles east of Fairbanks. The dam and floodway restrict the Chena River flow and allow for diversion of excess water to the Tanana River (ADOT&PF 2014). The entire FAI property is within the 500-year floodplain of the Tanana and Chena Rivers but is protected by earthen levees to the east and south. Portions of the infield and undeveloped areas at FAI are also within the 100-year floodplain (ADOT&PF 2014; FEMA 2014).

The new ATCT/TRACON site is located in the 100-year floodplain (Appendix F). The parking pad would be situated above the base flood elevation; however, the land available outside the floodplain is not large enough to accommodate the facility, surrounding structures, setbacks, or associated construction activities (Appendix F).

5.10.2.3 Surface Waters

The majority of FAI property consists of uplands that are largely the result of construction of the existing embankments. There are several surface water bodies within and surrounding the FAI property. The Chena River is to the northwest of FAI and flows south to its confluence with the Tanana River, which is south of FAI. Ponds, remnant sloughs, and wetlands are receiving waters for all stormwater discharges from FAI. A water-filled slough intersects University Avenue South adjacent to the southwest side of the new ATCT/TRACON site and a slough channel is present northeast of the site (FAA 2023c).

Stormwater drainage at FAI is subdivided into 11 areas with different discharge points. Stormwater from FAI travels via sheet flow and may flow through ditches and pipes to surrounding ponds and wetlands that then drain towards the Chena and Tanana Rivers. Most of the ground surface area is paved, however, unpaved areas consisting of compacted gravel, grass, and low-lying shrubs also exist at the facility. The existing ATCT/TRACON lies within Drainage Area 9 where sheet flow generally moves to the southeast before entering ditches and culverts that flow southwest along the west side of University Avenue South. The new ATCT/TRACON site is in an undefined drainage area directly southeast of Drainage Area 9; surface water flow at the southern end of the site generally follows the slough to the south, and flow at the

northern end of the site is generally to the northeast. Stormwater outfall 9C lies directly west of the new ATCT/TRACON site and discharges into the adjacent slough (ADOT&PF 2023b).

5.10.2.4 Groundwater

EPA defines a sole source aquifer as one where the aquifer supplies at least 50% of the drinking water for its service area and there are no reasonably available alternative drinking water sources should the aquifer become contaminated (EPA 2024c). There are no sole source aquifers in the area that could be affected by the Proposed Action (EPA 2024d). Fairbanks relies almost entirely on groundwater for municipal water supply (USGS 1999).

Groundwater at FAI has been encountered in most drilled boreholes, typically found at depths from about ground surface to 12 feet below ground surface (bgs; FAA 2023c). Groundwater flow ranges seasonally between the northwest and southwest and groundwater depth is influenced by the Chena and Tanana Rivers, which fluctuate seasonally in response to snowmelt and glacial runoff (ADOT&PF 2019b; Claar and Lilly 1997). A USGS water well is located about 40 feet southeast of Lot 8 in the undeveloped portion of the new ATCT/TRACON site and is used for measuring groundwater elevation for the USGS National Water Information System (FAA 2023c).

As described in Section 5.3, past use of AFFF at FAI has resulted in widespread PFAS contamination in the groundwater beneath the airport. PFAS impacts to groundwater have affected drinking water wells in areas downgradient of FAI. Sampling in 2017 indicated presence of perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) greater than the EPA Lifetime Health Advisory (LHA) limit in a number of wells in the Dale Road neighborhood. FAI continues to investigate drinking water wells at properties in the neighboring areas and is providing alternative water to affected households. As of May 2024, FAI has connected 98 properties to College Utilities Corporation, thereby providing a municipal water source to residents.

5.10.2.5 Wild and Scenic Rivers

Alaska has approximately 365,000 miles of rivers, of which 3,210 miles (25 rivers) are designated as Wild and Scenic. According to information published by the WSR and National Park Service, currently there are no designated WSR segments or rivers included in the NRI in the FNSB (ADF&G 2024b).

6.0 ENVIRONMENTAL CONSEQUENCES

In accordance with NEPA and FAA Order 1050.1F, this section describes the potential impacts to the environment, as described in Section 5.0, from implementing the Proposed Action or the No Action Alternative.

6.1 Air Quality

6.1.1 Significance Threshold

FAA Order 1050.1F defines significant air quality effects as those where the Proposed Action would result in emissions greater than NAAQS, local, or state standards for any time of period analyzed. The air quality assessment conducted for this EA is intended to show the potential effects on air quality associated with the Proposed Action. The air quality assessment was performed in accordance with the FAA *Aviation Emissions and Air Quality Handbook* (FAA 2024a).

FAA has not established significance thresholds for CO₂ or CO₂e emissions. CO₂ and CO₂e emissions are disclosed to provide information regarding emissions associated with a proposed action (FAA 2023b).

6.1.2 Proposed Action

The primary source of operational emissions for the new ATCT/TRACON would be motor vehicles used by the ATCT/TRACON personnel, the number of which would not be expected to change as a result of the Proposed Action. The new ATCT/TRACON would also house a backup power generator. Emissions from the backup generator would be occasional during failure of primary power source, and operations would be limited to 3,000 hours per 12-month consecutive period when combined with the diesel building generators listed in the FAI ORL permit (Permit AQ0293ORL03) issued by ADEC on 28 November 2015. The ORL permit limits the facility to 100 tpy total potential emissions and 39 tpy actual emissions (ADEC 2015). The backup generator for the new ATCT/TRACON would be a direct replacement for the existing backup generator at the existing ATCT/TRACON and would not result in a significant net increase in emissions from the facility.

An update to the FAI ORL permit would be needed due to the change in emissions sources as a result of the Proposed Action. The permit would be updated to reflect the removal of the existing ATCT/TRACON emergency generator and the addition of the new ATCT/TRACON emergency generator. The new emergency generator would be required to have a non-resettable hour meter or computer operational control system, as stipulated by the ORL permit, to allow for operational tracking and subsequent reporting. FAI would remain in compliance with the existing ORL permit and no Title V permit for a stationary source would be required; therefore, the Proposed Action would not have significant adverse effects to air quality.

Effects to air quality may occur during the construction phase of the Proposed Action. Heavy equipment operation, hauling and placement of fill material would create dust and consequently air quality effects due to suspension of airborne particles. The effects would be temporary and cease once construction has been completed. Fugitive dust would not be expected to be significant and may be minimized through construction BMPs such as rumble mats and periodic wetting of dry surfaces.

The Proposed Action construction and operational periods were evaluated with the Screening Criteria established by FAA (FAA 2024a). There would be no change to aircraft operations, aircraft taxi time, or change in vehicle miles traveled by ground access vehicles as a result of the Proposed Action for either the construction or operational periods. For the construction phase, it is estimated that 22 pieces of equipment per year would be needed (Appendix E), which falls below the Screening Criteria threshold of 125 pieces of equipment. No construction equipment would be needed for the operational period. The Proposed Action parameters would not exceed the Screening Criteria, and therefore, the Proposed Action would not have the potential to cause significant effects to air quality.

The CO₂e emissions associated with the Proposed Action are analyzed in two phases: the construction phase (which includes construction, demolition, and utility installation activities), and the operational phase following construction. The Proposed Action would not increase aircraft operations and would have no effect on aircraft-related CO₂e emissions. Because the Proposed Action represents a one-to-one replacement of the existing ATCT/TRACON, operation of the new facility would not be expected to result in a substantial increase in long-term emissions. The replacement facility would be designed and constructed in accordance with current national design standards and may incorporate improved energy efficiency compared to the existing facility.

The construction phase of the Proposed Action would require the use of heavy equipment such as cranes, backhoes or excavators, pickup trucks, and dump trucks and would generate short-term emissions of

airborne dust and other pollutants. For the purposes of estimating construction-related CO₂e emissions, it was assumed that during the construction phase, heavy equipment would operate for 50 hours per week for 5 months (20 weeks) annually and fleet vehicles and temporary power generators would operate for 50 hours per week for 4 months (16 weeks) annually over three field seasons.

Using the EPA Simplified Greenhouse Gas Emissions Calculator (Appendix E), it is estimated that the Proposed Action would generate approximately 410 Metric Tons (MT) of t CO₂e. According to the EPA National Emissions Inventory facility summary, the FNSB emitted 1,328,005 MTCO₂ in 2021 (the most recent year data is available). The anticipated CO₂e emissions to be generated by the Proposed Action represent a fraction (0.031%) of this total in comparison (EPA 2025). Therefore, adverse impacts from the construction phase would be short-term and negligible. Emissions would be reduced where practicable through practices such as employing anti-idling policies to minimize unnecessary fuel burn, performing regular equipment maintenance, optimizing equipment use/batching deliveries to reduce redundant trips, and using grid connections instead of diesel generators where possible.

6.1.3 No Action Alternative

Under the No Action Alternative, the existing ATCT/TRACON would remain at its current location. No new buildings would be constructed, and no utilities would be installed. Air traffic controllers would continue to operate out of the existing ATCT/TRACON. There would be no change to the 2015 ORL Permit, and FAI would continue to abide by permit emissions limits and reporting requirements. Net CO₂e emissions would remain at baseline levels. It is estimated that flight operations will increase at an average annual rate of 1.2% per year between 2010 and 2030. CO₂e emissions would be expected to rise at the same rate; however, this may not be the case as CO₂e emission reduction can come from measures such as changes to more fuel-efficient equipment, delay reductions, use of renewable fuels, and operational changes (e.g., performance-based navigation procedures). There would be no significant adverse effects to air quality under the No Action Alternative.

6.2 Biological Resources

6.2.1 Significance Threshold

FAA Order 1050.1F states that a significant impact to biological resources would occur when USFWS or NMFS determines that the action would be likely to jeopardize the continued existence of a federally listed threatened or endangered species or would result in the destruction or adverse modification of federally designated critical habitat. FAA has not established a significance threshold for non-listed species.

6.2.2 Proposed Action

Up to 3.3 acres of vegetation in undeveloped areas may be cleared at the proposed new ATCT/TRACON site to accommodate a paved parking lot and potential construction laydown area. While this would result in direct long-term impacts on vegetation, it represents a small fraction of the forested area at FAI and would not impact the survival of any plant species. Therefore, adverse effects to vegetation would be minor.

The Proposed Action would have no effect on federally listed threatened or endangered species or their designated critical habitat, as none were observed during the field survey or are expected to occur in the ROI (Appendix A; USFWS 2024c). Of the six wildlife species observed (Appendix D), four are listed as SGCN in Alaska's Wildlife Action Plan (ADF&G 2015). There is no formal legislation protecting SGCN; however, it is recommended that every effort be made to avoid harming SGCN or their habitat during implementation of the Proposed Action.

The Proposed Action is unlikely to impact wildlife in the majority of the ROI, which is heavily developed with little suitable habitat. The portion of the ROI encompassing the new ATCT/TRACON site is approximately 65% forested, and although habitat would be removed for the proposed project, there is suitable forest and wetland habitat immediately adjacent to the site to the north, east, and south. Therefore, adverse impacts to wildlife in the vicinity of the construction area would be expected to be moderate and short-term.

The Proposed Action would have no impact on aquatic species residing in the Tanana or Chena Rivers, as it would not involve dredging or importing fill into these water bodies.

Four bird species were observed in the ROI during the field survey (Appendix D), all of which are protected under the MBTA. USFWS has established recommended avoidance windows for vegetation clearing, ground disturbance, and other site construction activities during bird breeding and nesting seasons. In interior Alaska, this avoidance window is 1 May to 20 July for seabird colonies; 1 March to 31 August for eagles; and 1 May to 15 July for all other species (USFWS 2024d).

Eagles were not observed in the ROI during the field survey (Appendix D) but may be present in the project area (USFWS 2024c). To avoid eagle impacts, USFWS generally recommends that no clearing of vegetation should occur within 330 feet of any eagle nest; no activity should occur within 660 feet of any eagle nests between 1 March and 1 June; and no activity should occur within 660 feet of active eagle nests between 1 June and 31 August until juvenile birds have fledged, unless specifically authorized by USFWS (ADNR 2024). Construction workers would follow the USFWS nationwide avoidance and minimization measures for birds, including (USFWS 2024e):

- When project activities cannot occur outside the bird nesting season, conduct surveys prior to scheduled activity to determine if active nests are present within the area of impact and buffer any nesting locations found during surveys.
- Educate all employees, contractors, and/or site visitors of relevant rules and regulations that protect wildlife.
- Prior to removal of an inactive nest, verify that the nest is not protected under the ESA or the BGEPA. Nests protected under these acts cannot be removed without a valid permit.
- Do not collect birds (live or dead) or their parts (e.g., feathers) or nests, or remove active nests without a valid authorization or permit.
- Provide enclosed solid waste receptacles at all project areas. Non-hazardous solid waste (trash) should be collected and deposited in the onsite receptacles. Solid waste would be collected and disposed of by a local waste disposal contractor.

FAA would employ any additional BMPs recommended by the USFWS for this project as necessary to avoid impacts on bird species. If during project implementation it is determined that take of species protected under the MBTA and/or BGEPA may be necessary, FAA would coordinate with USFWS to obtain a federal permit.

6.2.3 No Action Alternative

Under the No Action Alternative, the existing ATCT/TRACON would remain at its current location. No new buildings would be constructed, and no utilities would be installed. FAI would continue to employ the measures identified in the Wildlife Hazard Management Plan (FAI 2024) to reduce the risk of wildlife strikes, including:

- Habitat modification/management
- Exclusionary devices
- Repulsion techniques
- Removal techniques

If a wildlife hazard should arise involving a federal or state-listed wildlife species, the Wildlife Coordinator would alert the proper agencies as soon as possible to coordinate the best course of action to alleviate such hazard while minimizing impacts to the listed species (FAI 2024). Therefore, there would be no significant adverse impacts to biological resources under the No Action Alternative.

6.3 Hazardous Materials, Solid Waste, and Pollution Prevention

6.3.1 Significance Threshold

FAA has not established a significance threshold for hazardous materials, solid waste, and pollution prevention; however, the factors listed below are to be considered when evaluating environmental effects for this impact category. A significant impact may occur if the Proposed Action has the potential to do any of the following (FAA 2023b):

- Violate applicable federal, state, tribal, or local laws or regulations regarding hazardous materials and/or solid waste management
- Involve a contaminated site (including but not limited to NPL sites)
- 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

6.3.2 Proposed Action

The Proposed Action is not anticipated to violate any applicable federal, state, tribal, or local laws or regulations regarding hazardous materials and/or solid waste management; 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; exceed local waste disposal capacity; or adversely affect human health and the environment.

6.3.2.1 Resource Conservation and Recovery Act, CERCLA, and Contaminated Sites Cleanup

The new ATCT/TRACON would not be expected to change FAI's RCRA classification as a Small Quantity Generator. Operational handling of hazardous wastes would not change due to the new ATCT/TRACON, and any hazardous wastes generated during demolition and construction would be disposed of at an approved hazardous waste disposal facility.

Existing FAA facilities would be connected to the new ATCT/TRACON. At this time, it is unknown if the existing duct bank can accommodate cables for the new ATCT. It is assumed that new duct bank and cable would be required. Directional drilling would be used under existing roadways/taxiways/runways and trenching with direct burial would be performed in all other areas. There is potential to encounter petroleum-contaminated soil in the planned trenching from the existing ATCT location towards the airport runways (ADEC 2025c). Due to the sitewide groundwater PFAS plume beneath FAI and past use of PFAS-containing materials at FAI, it is likely that PFAS-contaminated groundwater and/or soil would be encountered during construction activities that require excavation or subsurface drilling. In planning for

the construction phase of the Proposed Action, FAA assumes PFAS contamination would be encountered. If groundwater were encountered at Preferred Site 1 due to excavation, it could contain PFAS based on nearby surface water detections (ADOT&PF 2019a). There is also a possibility for excavated soil at Preferred Site 1 to be PFAS-contaminated if it has come into contact with nearby surface water. Although the FIA Sitewide PFAS plume lies downgradient, 0.5 miles away from Site 1, FAA assumes there would be PFAS-related effects on or from the Proposed Action at Site 1. A small percentage of the FOTS alignment overlaps with the PFAS plume (Figure 5-4-1). Construction (consisting of directional drilling or direct burial) would disturb only the top 3 feet bgs or less. Although groundwater is typically encountered at 12 feet bgs, FAA assumes that PFAS-contaminated water would be encountered during FOTS directional drilling or direct burial. Additionally, a PFAS plume from the City of Fairbanks Regional Fire Training Center, visible in the northeast corner of Figure 5-4-1, could potentially be encountered during trenching in this area (ADEC 2025c). In the event that previously undiscovered contamination is encountered during the course of project construction and demolition, FAA would stop work and make a spill report to the ADEC Division of Spill Prevention and Response. Work would not resume without ADEC approval.

Due to the potential for encountering groundwater while excavating, dewatering of contaminated groundwater in the alluvial soils would likely be necessary. Prior to the initiation of any ground-disturbing activities, FAA would consult with ADEC to confirm compliance with applicable ICs for nearby contaminated sites. An Excavation Dewatering General Permit would be obtained through the ADEC Division of Water as needed and may include special permit conditions due to the proximity of active ADEC-regulated contaminated sites to the planned construction and demolition areas. Additionally, FAA would develop and adhere to an ADEC-approved Contaminated Materials Management Plan (CMMP) to minimize adverse effects caused by encountering petroleum and/or PFAS-contaminated materials while working in proximity to a contaminated site(s) and the PFAS groundwater plume.

The draft CMMP is incorporated into this EA in Appendix H. The CMMP includes procedures for proper handling, storage, and disposal of both petroleum- and PFAS-contaminated soil and water, LBP waste, ACM waste, PCB waste, miscellaneous hazardous wastes from equipment, and construction and demolition debris. Once generated, FAA would screen and sample waste streams to determine the appropriate disposal facility. Waste stored or stockpiled onsite would be managed to prevent migration of contaminants. Equipment would be decontaminated in designated areas to prevent transfer of contaminants throughout the project site. Incidental waste from decontamination would be collected, managed, characterized, and disposed of at an appropriately permitted facility. An approved ADEC Contaminated Media Transport and Treatment or Disposal Approval Form would be obtained prior to transporting any waste offsite. The CMMP will be completed with project-specific details by the FAA construction contractor when the logistics of the construction and demolition phase have been finalized. FAA will review any CMMP finalized by the construction contractor, and will coordinate with ADEC to obtain regulator approval. With implementation of the described preventive measures, there would be no significant effects related to RCRA, CERCLA, and contaminated sites cleanup from the Proposed Action.

6.3.2.2 Oil Pollution Prevention

Once operational, FAA would store diesel fuel in ASTs to supply fuel to the ATCT/TRACON and a diesel fuel-powered emergency generator. The capacities of the ASTs would be similar to that of the existing ATCT/TRACON (2,500 gallons and 1,000 gallons). The tanks would be designed and constructed in accordance with 40 CFR § 112 to prevent spills; this would include features such as secondary containment, a tank level monitoring system, and an overfill alarm. An amendment to the SPCC plan would be required, as the fuel tanks are of capacity greater than 55 gallons, and there is a change in location/status of the existing tanks. FAA would incorporate new oil storage into the existing monthly inspection schedule for the tanks, associated valves and piping, and surrounding areas as a spill prevention

measure outlined in the facility SPCC. Other than diesel, no storage or use of hazardous substances other than small amounts of materials used for routine building and equipment maintenance (such as cleaning products) would be expected at the new ATCT/TRACON. There would be no significant effects related to oil pollution prevention from the Proposed Action.

6.3.2.3 Emergency Planning and Community Right-to-Know Act

It is anticipated that the amount of hazardous material stored at the newly constructed ATCT/TRACON would meet the reportable quantity threshold for EPCRA Tier II. FAA would report these amounts annually to the state's EPCRA database in accordance with state and federal regulations, as is the current practice (ADEC 2025b).

6.3.2.4 Toxic Substances Control Act

A hazardous building materials survey would be conducted at the existing ATCT/TRACON prior to any demolition activities. The survey would identify all onsite hazardous materials to properly plan handling and disposal. ACM is known or suspected to remain in various materials at the existing ATCT/TRACON (ADOT&PF 2020b). FAI would comply with its Facility Asbestos Operations and Maintenance Plan, NESHAP, TSCA, and FNSB Solid Waste Division procedures (FNSB 2024) regarding proper survey, sampling, abatement, containment, and disposal of all ACM prior to and during the demolition of the existing ATCT/TRACON. Any materials qualifying as hazardous waste would be disposed of at an approved hazardous waste disposal facility.

There is no known LBP at the existing ATCT based on past testing, however, all building materials would be tested during demolition. If any exterior surfaces of the buildings are determined to contain LBP, the soil adjacent to the building may also contain lead. FAA would coordinate the testing and handling of this soil with the ADEC Contaminated Sites Program. Transport of wastes would comply with federal, state and local regulations. FAA's commitment to conduct sampling at the proposed sites, consult with ADEC, and comply with federal, state, and local regulations regarding storage, handling, transport, and disposal of any contaminated soil and/or groundwater, and any hazardous wastes generated from construction activities would confirm that effects from these materials to human health and the environment would not be significant and would not violate any applicable federal, state, or local regulations.

6.3.2.5 Solid Waste

The Fairbanks South Cushman Landfill accepts asbestos waste materials for disposal as authorized by ADEC Landfill Operating Permit SW1A002-26 and would be used for ACM disposal. The FNSB Solid Waste Division has established disposal procedures that would be adhered to when preparing ACM loads for disposal.

General refuse generated during the construction phase of the Proposed Action, such as spent personal protective equipment and wrappers, would also likely be disposed of at the Fairbanks South Cushman Landfill. The quantities of general refuse would be relatively minimal and would not exceed the landfill's capacity for materials acceptance; therefore, it is presumed that there would be no significant effects on solid waste.

6.3.3 No Action Alternative

Under the No Action Alternative, the existing ATCT/TRACON would remain in its current location. No new buildings would be constructed, and no utilities would be installed. There would be no impacts from hazardous materials, solid waste, or pollution other than those already posed by the existing

ATCT/TRACON. FAA would continue to manage hazardous materials storage under its existing, approved SPCC plan, updating as necessary when petroleum storage capacity changes at FAI. FAA would continue reporting storage of hazardous materials in quantities that trigger EPCRA Tier II reporting requirements. Hazardous waste would continue to be managed in accordance with the FAI SWMP. FAI would continue to manage ACM at the existing ATCT/TRACON under the Facility Asbestos Operations and Maintenance Plan. There would be no significant effects on hazardous materials, solid waste, and pollution prevention under the No Action Alternative.

6.4 Historical, Architectural, Archaeological, and Cultural Resources

6.4.1 Significance Threshold

Impacts to cultural resources can occur by physically altering, damaging, or destroying a resource or by altering characteristics of the surrounding environment that contribute to the resource's significance. Direct impacts entail physical changes to a historic property. Indirect effects usually occur through increased use, visual disturbance, or noise.

To evaluate impacts, historic properties are subject to the criteria of adverse effect found at 36 CFR § 800.5. A significant impact or adverse effect to historic properties occurs when an undertaking or action alters, directly or indirectly, any of the characteristics of a historic property that qualify it for inclusion in the NRHP. Significant impacts/adverse effects can include: (1) physical destruction of or damage to all or part of the property; (2) alteration of a property, including restoration, rehabilitation, repair, maintenance, and stabilization; (3) removal of the property from its historic location; (4) change of character in the property's use or of physical features within the property's setting that contribute to its historic significance; and (5) introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features. If an undertaking directly or indirectly affects a property in a manner that does not permanently alter its integrity or NRHP eligibility, then it is not considered an adverse effect/significant impact.

FAA Order 1050.1F states that based on regulations at 36 CFR § 800.8(a), a finding of adverse effect to historic, architectural, archaeological, or cultural resources does not necessarily constitute a significant impact. The Section 106 process includes consideration of alternatives to avoid adverse impacts, consideration of mitigation measures, and acceptance of adverse effects in some cases. In all cases, FAA makes the final determination on the level of effect, in consultation with the Advisory Council on Historic Preservation, State Historic Preservation Officer (SHPO), or Tribal Historic Preservation Officer.

6.4.2 Proposed Action

6.4.2.1 New ATCT Construction

No historic properties occur with the footprint of the new ATCT/TRACON. Roughly 25% of this area has been previously disturbed by construction of a gravel parking lot. Systematic pedestrian survey and subsurface archaeological testing identified no cultural resources in this area. No Alaska Heritage Resources Survey sites or sites of traditional importance are in the vicinity.

6.4.2.2 Existing ATCT Demolition

No historic or prehistoric archaeological remains are in the ATCT/TRACON demolition area. The entire demolition footprint has been disturbed by construction and development. The depth of disturbance is up to 20 feet beneath the surface, leaving little to no possibility for intact buried archaeological materials (Ockerman and Gaines 2024). The existing ATCT/TRACON (FAI-02835) has been determined not eligible

for the NRHP with SHPO concurrence received on 6 January 2025 (Appendix A). No historic properties, sites of traditional importance, archaeological sites, or other cultural resources are in the area.

6.4.2.3 Utilities and FOTS Alignment

The entire utilities and FOTS alignment has been surveyed for cultural resources. Most of the utilities and FOTS alignment has experienced disturbance from previous airport and runway construction, grading, and leveling. No new cultural resources were identified in the utilities and FOTS alignment (Ockerman and Gaines 2024). The Fairbanks FAA Facility HD (FAI-01291) is roughly 820 feet distant, outside the runway fence, and across Old Airport Road and from the northernmost utilities and FOTS run; there would be no effects from utilities and FOTS installation. The easternmost utilities and FOTS line would connect to the current FAI Remote Transmitter/Receiver (RTR) building and antennae array (FAI-02370) through existing conduit. The RTR building has been determined not eligible for the NRHP (Appendix A). Even if it were considered eligible, running the utilities and FOTS through existing conduit would not constitute an adverse or significant impact.

6.4.2.4 Summary

There would be no significant impacts to historical, architectural, archaeological, and cultural resources from the Proposed Action. No historic properties, sites of traditional cultural importance, or archaeological resources occur within the APE for project elements. The existing ATCT/TRACON is not a historic property. Thus, its demolition does not constitute a significant impact or adverse effect. The current FAI RTR building is likewise not a historic property. Even if it were, extending the utilities line to this structure through existing conduit would not constitute an adverse or significant impact.

6.4.3 No Action Alternative

Under the No Action Alternative, the existing ATCT/TRACON would remain in its current location. No new buildings would be constructed, and no utilities would be installed. There would be no impact to historical, architectural, archaeological, or cultural resources under the No Action Alternative other than that already posed by the existing airport.

6.5 Land Use

6.5.1 Significance Threshold

FAA has not established a significance threshold for land use and has not provided specific factors to consider in making a significance determination for land use. The determination that significant impacts exist in the Land Use impact category is normally dependent on the significance of other impacts and possible conflicts between the Proposed Action and the objectives of federal, regional, state, and local land use plans, policies, and controls for the area concerned. While the NEPA document must include a discussion regarding consistency with state and/or local plans, an inconsistency by itself does not automatically result in a significant impact (FAA 2023b).

6.5.2 Proposed Action

Because FAA has not provided specific factors to consider in making a significance determination for land use, the determination that significant impacts exist in the Land Use impact category is normally dependent on the significance of other impact categories. Significant noise impacts as a result of the Proposed Action are not anticipated (Section 6.7). The Proposed Action would not result in significant impacts to socioeconomics or children's environmental health and safety risks (Section 6.8).

Planned future development at FAI are consistent with the FAI Airport Layout Plan (ADOT&PF 2020a) and the goals of the FNSB Regional Comprehensive Plan, which include protecting active airports from the encroachment of incompatible land use, facilitating airport expansion, and enhancing development opportunities while minimizing land use conflicts (ADOT&PF 2014). Therefore, the Proposed Action would not result in significant adverse impacts on land use compatibility.

6.5.3 No Action Alternative

Under the No Action Alternative, the existing ATCT/TRACON would remain in its current location. No new buildings would be constructed, and no utilities would be installed. There would be no impact to land uses in the vicinity of FAI.

6.6 Natural Resources and Energy Supply

6.6.1 Significance Threshold

FAA has not established a significance threshold for natural resources and energy supply; however, as noted in FAA Order 1050.1F, the potential for the Proposed Action to cause demand to exceed available or future supplies of natural resources should be taken into consideration when evaluating environmental impacts.

6.6.2 Proposed Action

The Proposed Action would not significantly impact natural resources and energy supply. Materials used for the construction of the new ATCT/TRACON and parking area would consist mainly of concrete, sand, gravel, steel, asphalt, and glass. These materials are available locally and are not special purpose materials. Existing utility corridors would be used, when possible, to provide electricity and telecommunications services to the ATCT/TRACON. Electricity consumption would increase during the transition of operations between the existing ATCT/TRACON and the new ATCT/TRACON but would be insignificant relative to total airport consumption. A backup generator would be used in the event of commercial electricity supply failure. This generator would be used only in the event of an emergency and periodically for maintenance and would not cause significant impacts to natural resources or energy supply. Increased electrical power and fuel usage during construction would be negligible and would not noticeably affect the commercial electricity supply. Following construction of the new ATCT/TRACON, it is not expected that heating oil consumption would increase or decrease significantly. The Proposed Action would not result in increased aircraft operations and would therefore have no effect on aircraft fuel consumption.

Non-potable water would be used for demolition and construction (e.g., dust control) and would likely be sourced from a local surface water body. Construction contractors may be required to obtain and comply with the stipulations of a Temporary Water Use Permit from ADNRR. Due to spring snowmelt and recharge from both surface and groundwater, water consumption during construction would have a short-term, negligible impact on available water in either the individual surface water body or the FNSB overall. Waste produced during the construction of the new ATCT/TRACON and base building would be minimal and typical for a mostly limited occupant building and no significant amount of or unusual natural resources would be used. Pollution prevention principles would be implemented as part of a construction management plan. Potable water distribution and wastewater collection would continue to be managed by the publicly regulated utilities that currently serve FAI.

Construction waste would be disposed of at locations with adequate capacity and within close proximity to the airport. Demolition of the existing ATCT/TRACON would result in approximately 3,500 to 4,000 tons

of concrete and rubble. All waste would be transported and disposed of according to federal, state and local regulations. Recyclable materials would be recycled when possible.

6.6.3 No Action Alternative

Under the No Action Alternative, the existing ATCT/TRACON would remain in its current location. No new buildings would be constructed, and no utilities would be installed. Other development projects in the area or at FAI would continue based on feasibility and operational updates and needs. There would be no impact to natural resources or energy supply other than those posed by the existing ATCT/TRACON facility to support operations at FAI.

6.7 Noise and Noise-Compatible Land Use

6.7.1 Significance Threshold

FAA Order 1050.1F defines significant impacts to noise as when a proposed action would increase aircraft 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 aircraft noise exposure level, or that will be exposed at or above the DNL 65 dB aircraft noise exposure level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe. Local standards and ordinances may exist that differ from FAA's land use compatibility guidelines; however, FAA does not use local standards and ordinances to determine the significance of noise impacts. No standardized criteria have been developed for assessing construction noise impacts. In the absence of local noise ordinances applicable to this project, FAA elected to use the Federal Transit Administration's (FTA) guidelines (Table 6-1) as criteria for this assessment. FTA (2018) describes its screening criterion as the level at which "there may be adverse community reaction." Daytime hours are considered 7:00 A.M. to 10:00 P.M. (FTA 2018).

Table 6-1 Detailed Analysis Construction Noise Criteria

LAND USE	LEQ,EQUIP (8HR) – DAY	LEQ,EQUIP (30DAY) – 30-DAY AVERAGE
Residential	80	75
Commercial	85	80
Industrial	90	85

Notes:

For definitions, refer to the Acronyms and Abbreviations list (Appendix J).

Because no work will occur outside of daytime hours, nighttime criteria are not considered.

Source: FTA 2018.

Section 7.1 of the FTA Transit Noise and Vibration Impact Assessment Manual (FTA 2018) outlines the recommended steps for construction noise assessment: (1) determine level of construction noise assessment; (2) use a qualitative construction noise assessment to estimate construction noise, or (3) use a quantitative construction noise assessment to estimate construction noise; (4) assess construction noise impact; and (5) determine construction noise mitigation measures. The noise analysis within this EA conforms to the recommended procedure and assesses noise effects through a quantitative assessment (Appendix G).

6.7.2 Proposed Action

The construction and operation of the new ATCT/TRACON or demolition of the existing ATCT/TRACON would not affect the arrival/departure paths, flight patterns, runway use, fleet mix, or number of current or forecasted aircraft operations at FAI; therefore, the new ATCT/TRACON would not change the noise

due to aircraft operations between the No Action Alternative and Proposed Action. There would be no noise effects from the new ATCT/TRACON once operational as the Proposed Action represents a one-to-one replacement of the existing tower.

Potential noise effects would be generated from the construction of the new ATCT/TRACON and the demolition of the existing ATCT/TRACON. It is anticipated that construction-related noise would be minimal in comparison to operational aircraft noise. The temporary increase in noise expected during construction would be due to activities such as digging, grading, and paving, which would result in short-term, minor, adverse effects on the noise environment. Table 6-2 presents the typical construction equipment noise levels derived from the FTA Transit Noise and Vibration Impact Assessment Manual (FTA 2018) and the estimated number of pieces of equipment to be used during the construction and demolition phase of the Proposed Action.

The distance to the closest noise-sensitive receptor (the residence on Elliott Lane) from the new and existing ATCT/TRACON is approximately 6,000 feet. Due to the large distance to noise-sensitive receptors, it was determined that the general construction noise assessment methodology described in the FTA Noise and Vibration Impact Assessment Manual would be appropriate to assess construction noise impacts (FTA 2018). The following equation was used to determine construction noise levels at a specific distance:

$$L_{eq, equip} = L_{emission} + 10 * \text{LOG}(Adj_{usage}) - 20 * \text{LOG}(D/50) - 10 * G * \text{LOG}(D/50)$$

Where:

$L_{eq, equip}$ = The $L_{eq(t)}$ (equivalent sound level) at a receiver from the operation of a single piece of equipment over a specified time period, in dBA.

$L_{emission}$ = The noise emission level of the particular piece of equipment at the reference distance of 50 feet, in dBA.

Adj_{usage} = A usage factor to account for the fraction of time that the equipment is in use over the specified time period.

D = The distance from the receiver to the piece of equipment, in feet.

G = A constant that accounts for topography and ground effects.

Assumptions for this general assessment include:

- The noise emission level ($L_{emission}$) values are derived from Table 6-2.
- The usage factor (Adj_{usage}) is 1; this assumes full power operation of the equipment for 100% of the specified time periods (daytime and 30-day average). It results in $10 * \text{LOG}(Adj_{usage})$ equals 0.
- The ground effect (G) is 0, which assumes free-field conditions and ignoring ground effect. It results in $10 * G * \text{LOG}(D/50)$ equals 0.
- Determine the $L_{eq, equip}$ for the pieces of equipment expected to be used in the construction (Table 6-2).

The noise assessment employs a conservative worst-case scenario in which all primary construction equipment operates concurrently at full utilization during an 8-hour daytime period. Equipment noise levels were combined using logarithmic addition to estimate a composite source level, and distance attenuation was applied to calculate resulting 8-hour $L_{eq(t)}$ noise levels at identified receptors. This approach is intended to provide an upper-bound estimate of construction noise exposure and likely overstates typical operating conditions. Using the above equation and assumptions, individual equipment noise levels were first combined using logarithmic addition to derive a composite noise emission level ($L_{emission}$) of 97.5 dBA at the reference distance of 50 feet for all 22 pieces of equipment operating

concurrently. Applying distance attenuation, the predicted construction noise level ($L_{eq(t)}$) at a distance of 6,000 feet (the nearest noise-sensitive receptor) is 55.9 dBA, representing both the daytime and 30-day average under the conservative assumption of continuous full-utilization operation. This is substantially less than the FTA (2018) residential noise criteria of 80 dBA (daytime) and 75 dBA (30-day average), and the closest residential building would experience a 0.5-dB noise increase due to the Proposed Action.

FAI property is zoned as Light Industrial and would be subject to the 90-dBA construction noise threshold (FNSB 2005). The $L_{emission}$ of all 22 pieces of equipment would travel 120 feet before attenuating below this threshold. Airport buildings are more than 120 feet away from the new ATCT/TRACON construction site, but there may be airport buildings within 120 feet of FOTS alignment areas that may experience elevated noise levels when work is occurring if existing conduit is not being used. Since no noise-sensitive areas would be exposed to noise at or above the DNL 65-dB aircraft noise exposure level or experience an increase of 1.5 dB or greater (FAA 2015) and the Proposed Action would not generate noise at levels exceeding the construction noise assessment criteria (FTA 2018), the noise effects from the Proposed Action would not be considered significant.

Table 6-2 Construction Equipment Noise Emission Levels

EQUIPMENT	TYPICAL NOISE LEVEL 50 FEET FROM SOURCE	ESTIMATED NUMBER NEEDED FOR PROPOSED ACTION
Backhoe	80 dBA	2
Crane, Derrick	88 dBA	1
Dozer	85 dBA	1
Dump Truck	84 dBA	1
Excavator	85 dBA	1
Generator	82 dBA	1
Truck	84 dBA	14
Skid Steer	84 dBA ¹	1

Notes:

For definitions, refer to the Acronyms and Abbreviations list (Appendix J).

¹ Assumed same decibel level as Dump Truck.

Source: FTA 2018, FHWA 2006.

6.7.3 No Action Alternative

Under the No Action Alternative, the existing ATCT/TRACON would remain in its current location. No new buildings would be constructed, and no utilities would be installed. There would be no effects to noise other than those posed by the operational noise from the existing ATCT/TRACON. There would be no changes to arrival/departure paths, flight patterns, runway use, fleet mix, or the number of current or forecasted aircraft operations at FAI; consequently, noise contours at FAI would not be affected.

6.8 Socioeconomics and Children’s Environmental Health and Safety Risks

6.8.1 Significance Threshold

FAA has not established significance thresholds for socioeconomics or children’s environmental health and safety, but the agency has identified factors to consider when evaluating the context and intensity of potential effects that may result from a proposed action, as described in this section (FAA 2023b).

The determination that adverse socioeconomic impacts exist is normally dependent on whether such impacts are interrelated with or inseparable from a physical or natural environmental effect. Factors to consider include, but are not limited to, situations in which the action would have the potential to (FAA 2023b):

- Induce substantial economic growth in an area, either directly or indirectly.
- Disrupt or divide the physical arrangement of an established community.
- Cause extensive relocation when sufficient replacement housing is unavailable.
- Cause extensive relocation of community businesses that would cause severe economic hardship for affected communities.
- Disrupt local traffic patterns and substantially reduce the levels of service of roads serving an airport and its surrounding communities.
- Produce a substantial change in the community tax base.

For child populations, disproportionate impacts are inherent. The extent to which children would be impacted is disproportionate due to their vulnerabilities from age-related physiological differences in types and levels of exposure; therefore, the evaluation of environmental impacts on these populations is different from the evaluation of environmental impacts on adults and other populations. While FAA Order 1050.1F does not establish a significance threshold for children’s environmental health and safety, it does instruct analyses to evaluate when a proposed action would have the potential to lead to disproportionate health or safety risks to children. Such risks may include circumstances in which children are likely to come in contact with or ingest substances that are harmful through exposure to air, food, water, recreational waters, soil, or hazardous products (FAA 2023b).

6.8.2 Proposed Action

Socioeconomic factors and demographics in the ROI are consistent with the State of Alaska and the U.S. in general. The Proposed Action would not result in significant human health or environmental effects to any population groups in the ROI. No real property would be acquired and no persons would be displaced or relocated as a result of the Proposed Action. No changes to local education or public services would be associated with the Proposed Action.

Local businesses may experience temporary, minor economic benefits through construction employment and increased materials expenditures, but there would be no substantial change to the local tax base. There would be no need to relocate businesses and no cause for economic hardship within the ROI as a result of the Proposed Action. The Proposed Action is localized to FAI and no substantial disruptions to local traffic patterns near the airport or within the ROI would be anticipated. Takeoff and approach paths would not be changed as a result of the Proposed Action; therefore, there would be no impact to aircraft safety for FAI personnel or travelers using FAI services. For these reasons, adverse impacts to socioeconomics or children’s environmental health and safety risks from the Proposed Action are not anticipated.

6.8.3 No Action Alternative

Under the No Action Alternative, the existing ATCT/TRACON would remain in its current location. No new buildings would be constructed, and no utilities would be installed. There would be no impacts to socioeconomics or children’s environmental health and safety risks under the No Action Alternative.

6.9 Visual Effects

6.9.1 Significance Threshold

FAA Order 1050.1F does not establish specific impact thresholds for light emissions and visual impacts. The Order includes the following factors to consider as significant impacts to light emissions: the degree to which the action would have the potential to, (1) create annoyance to or interfere with normal activities from light emissions; and (2) affect the visual character of the area due to light emissions.

The Order includes the following factors to consider as significant impacts to visual resources: the extent to which the action would have the potential to (1) affect the nature of the visual character of the area; (2) contrast with the visual resources and/or visual character in the ROI; and (3) block or obstruct the views of visual resources, including whether these resources would still be viewable from other locations.

6.9.2 Proposed Action

Due to the developed nature of the environment at and surrounding FAI, light emissions associated with the Proposed Action are unlikely to have an adverse impact on human activity or sensitive receptors. Although there may be additional lighting associated with the ATCT and TRACON facilities, these facilities are located more than 1 mile from the nearest residential development. Design criteria for the Proposed Action (e.g., bulk, mass, and scale of the ATCT and TRACON facilities) would consider potential impacts to operational aircraft traffic.

6.9.3 No Action Alternative

Under the No Action Alternative, the existing ATCT/TRACON would remain in its current location. No new buildings would be constructed, and no utilities would be installed. Consequently, there would be no impact from light emissions and no visual impact other than that posed by the existing ATCT/TRACON.

6.10 Water Resources

6.10.1 Significance Threshold

FAA Order 1050.1F has defined the significance thresholds for water resources as summarized in Table 6-3.

Table 6-3 Summary of Water Resources Significance Thresholds

WATER RESOURCE TYPE	SIGNIFICANCE THRESHOLD ¹	FACTORS TO CONSIDER ²
Wetlands	• Adversely affect a wetland's function to protect the quality or quantity of municipal water supplies • Substantially alter the hydrology needed to sustain wetland values and functions • Substantially reduce the wetland's ability to retain floodwaters or storm runoff • Adversely affect maintenance of natural systems supporting wildlife and fish habitat or economically important resources • Promote development of secondary activities or services that would cause circumstances listed above	• None established.

Table 6-3 Summary of Water Resources Significance Thresholds

WATER RESOURCE TYPE	SIGNIFICANCE THRESHOLD ¹	FACTORS TO CONSIDER ²
	Be inconsistent with applicable state wetland strategies	
Surface Waters	- Exceed water quality standards established by federal, state, local, and tribal regulatory agencies - Contaminate public drinking water supply such that public health may be adversely affected	- Adversely affect natural and beneficial water resource values to a degree that substantially diminishes or destroys such values. - Adversely affect surface waters such that beneficial uses and values are appreciably diminished or can no longer be maintained. - Present difficulties based on water quality impacts when obtaining a permit or authorization.
Groundwater	- Exceed groundwater quality standards established by federal, state, local, and tribal regulatory agencies - Contaminate an aquifer used for public water supply such that public health may be adversely affected	- Adversely affect natural and beneficial groundwater values to a degree that substantially diminishes or destroys such values. - Adversely affect groundwater quantities such that beneficial uses and values are appreciably diminished or can no longer be maintained. - Present difficulties based on water quality impacts when obtaining a permit or authorization.

Notes:

For definitions, refer to the Acronyms and Abbreviations list (Appendix J).

¹ Significance Threshold as established by FAA Order 1050.1F.

² If no Significance Threshold is established, Factors to Consider are to be taken into account during impacts analysis.

Source: FAA 2015.

6.10.2 Proposed Action**6.10.2.1 Wetlands**

Approximately 3.3 acres of presumed freshwater forested/shrub wetlands (USFWS 2024a) would be paved and filled as part of the Proposed Action. This loss would not be expected to:

- Adversely affect the wetland's function to protect the quality or quantity of municipal water supplies, as the Tanana River is the principal source of groundwater for the broad, unconfined Fairbanks Area aquifer (USGS 1978). The remaining approximately 23 acres of directly connected wetland would continue to provide water filtration function.
- Substantially alter the hydrology needed to sustain wetland values and functions, as the wetlands potentially impacted do not contain inflow or outflow points that control water movement and water quality.
- Substantially reduce the wetland's ability to retain floodwaters or storm runoff, as water retention is not a primary function of the wetland; rather, earthen levees and the Chena River Lakes Flood Control Project are used to control flooding in the airport area (refer to Section 6.10.2.2). The airport has installed stormwater conveyances for stormwater drainage across the

facility, and drainage in the area of the proposed new site is directed to a slough directly to the south rather than to the wetland area. The slough that receives stormwater conveyances is outside of the new ATCT/TRACON construction area (FAI 2020).

- Promote development of secondary activities or services that would cause circumstances listed above; as the Proposed Action is a direct ATCT/TRACON replacement, no new secondary activities or services would be developed that would cause effects to wetlands.
- Be inconsistent with the state wetland management goal outlined in the Tanana Basin Area Plan of maintaining the hydrologic, habitat, and recreational functions of public wetlands. In accordance with the Plan, land management practices for state lands would be directed to avoid or minimize adverse impacts on the following important functions of wetlands (ADNR 1991):
 - Filtering nutrients, pollutants, and sediment from surface runoff.
 - Stabilizing water supplies by storing excessive water during flooding and by recharging groundwater during dry periods.
 - Providing important feeding, rearing, nesting, and breeding grounds for many species as well as related recreational use and aesthetic values.

The Proposed Action would result in adverse effects to wildlife habitat, as the potentially affected wetlands lie at the edge of a large undeveloped area of wetlands and forest; however, it would not be expected that these effects would be significant, as wildlife would acclimate by using the existing wetlands that would remain unaffected to the southeast. Additionally, no significant effects would be expected due to the relatively small area of wetlands lost in comparison with the remaining local undeveloped wetlands that can be used by displaced wildlife, and the wetlands in the general Fairbanks Area.

Therefore, while the loss of wetlands would result in a long-term adverse impact on wetland function, it would not be expected to significantly affect water quality, groundwater recharge, water quality, stormwater attenuation, aesthetic and noise buffering, or habitat values in the ROI. A 2007 USFWS study identified 63,793 acres of total wetlands in the Greater Fairbanks Area, comprising approximately 32% of the 199,080-acre study area. USFWS found that wetland habitats were not evenly distributed across the study area, with large, continuous blocks of scrub-shrub habitat occurring within the Goldstream Valley, Creamer's Field Migratory Waterfowl Refuge, and along the eastern portion of the study area (USFWS 2010). A loss of 3.3 acres of wetlands from the Proposed Action represents 0.000052% of the wetland habitat identified in the Greater Fairbanks Area.

A 2011 study estimates that the Fairbanks Area has lost approximately 26.6% of its total wetlands since 1949 (USFWS 2011), which suggests that total wetlands numbered 86,911 acres at that time. Accordingly, the loss of 3.3 acres of wetlands from the Proposed Action represents 0.000038% of the total wetlands from the presumed 1949 baseline. Wetland habitat is present adjacent to the ROI and would not be filled; the nearby wetlands would likely compensate for the loss of wetland function caused by the Proposed Action. During the analysis of siting alternatives, in accordance with EO 11990, FAA determined that there are no reasonably practicable alternatives that meet the purpose of and need for the Proposed Action; therefore, there are no viable alternatives that would result in less wetlands impacts.

As described in Section 5.10 and the USACE-provided AJD, the wetlands identified within the project area are not subject to regulation under Section 404 of the CWA and a USACE Section 404 permit for fill of wetlands would not be required for the Proposed Action. However, in accordance with EO 11990, and consistent with FAA's obligations under FAA Order 1050.1F, potential impacts to wetlands, regardless of jurisdictional status, have been evaluated as part of this EA. Due to site-specific constraints and the nature of the Proposed Action, avoidance and minimization of wetlands impacts are not practicable. Although no federal permit or compensatory mitigation is required, FAA is considering voluntary mitigation

measures to reduce potential adverse effects to wetlands in alignment with the intent of EO 11990. The specific mitigation approach has not yet been finalized but will be determined prior to construction and documented in the final project record. Coordination with appropriate resource agencies may occur, as appropriate, during final project development.

6.10.2.2 Floodplains

According to data from the National Flood Hazard Layer (FEMA 2025), approximately 63,241,534 square feet (1,452 acres) of the airport property lie within the 100-year floodplain. The Proposed Action would result in 261,360 square feet (6 acres) of disturbance and the addition of 261,360 square feet (6 acres) of new impervious surface into the SFHA floodplain. The loss of permeable surface area due to the Proposed Action would result in displacement of 522,720 cubic feet of floodwater, equating to a 0.008-foot increase in base flood elevation. While this represents a long-term impact to the floodplain, the increase in base flood elevation would not be expected to have a significant adverse effect on the floodplain's ability to moderate floodwater impacts. The increase in base flood elevation would not be expected to affect facility access roads by preventing personnel from entering or exiting the area, affect airport use, or cause flood-induced spills of hazardous materials stored at the airport.

Due to the location of the new ATCT/TRACON site within a SFHA, FAA would be required to obtain a Floodplain Permit for the Proposed Action from the FNSB to confirm any new construction is elevated to the proper height to minimize flood loss. The increase in base flood elevation resulting from the loss of permeable surface area would not significantly impact the floodplain's ability to moderate floodwaters, as most of the area outside the developed portion of the ROI is heavily vegetated with forest, brush, and wetlands, which slow or impede the flow of floodwaters and trap or filter out woody debris and silt. The airport is also protected by earthen levees, and flooding is managed by the Chena River Lakes Flood Control Project.

6.10.2.3 Surface Waters

The Proposed Action would involve construction activities carried out by heavy equipment and light-duty vehicles. The construction at Preferred Site 1 for the replacement ATCT/TRACON would disturb approximately 6 acres. Demolition of the existing ATCT/TRACON would disturb approximately 1.5 acres. The FOTS installation area of disturbance would be approximately 5 acres for new utility bank construction/tie-ins (4 linear miles of 10-foot-wide corridor). As all projects are connected actions, they are considered together with regard to stormwater permitting. The combined area of disturbance is greater than 5 acres; consequently, coverage under the APDES CGP and development of a SWPPP would be required. Short-term impacts could result from construction activities such as clearing, grading, trenching, and excavating, which could displace sediment into nearby waterbodies through stormwater; however, construction would be conducted in accordance with the CGP and the contractor's SWPPP to minimize these impacts. Erosion and sediment controls (e.g., silt fences and sediment traps downslope from construction) and stormwater BMPs (e.g., spill cleanup and appropriate disposal) would be implemented consistently with the FAI SWPPP. Therefore, negligible impacts on surface water and stormwater runoff would be anticipated from the construction and demolition activities associated with the Proposed Action.

Preferred Site 1 is currently unpaved, and construction of the new ATCT/TRACON would be expected to add up to 6 acres of impervious surface to the airport. Project design for new impervious developments would include stormwater conveyance features, as needed, and BMP updates to the existing FAI SWPPP to incorporate new sources of runoff into the existing stormwater system and to maintain or restore predevelopment site hydrology to the maximum extent practicable. The FAI SWPPP would be updated to

show new stormwater conveyance features and the new facility would be incorporated into the inspection schedule. With these measures in place, significant effects to surface water would not be anticipated. Connecting the new ATCT/TRACON to existing utilities at FAI would not be expected to add significantly to impervious surfaces at the airport; new underground utility banks would be buried and seeded for regrowth of vegetation over top, allowing infiltration of precipitation.

6.10.2.4 Groundwater

During the construction phase, the Proposed Action could result in accidental spills or leaks of substances such as fuels, oils, and other materials, that could contaminate groundwater and aquifers beneath FAI; however, such risk would be minimized by following equipment maintenance standards, use of secondary containment for temporary storage of hazardous materials, and other project-specific BMPs. Consequently, these effects would be short-term, minor, and adverse in nature. As previously discussed, PFAS-contaminated groundwater has led FAI to provide alternative drinking water sources to affected households. The Proposed Action would not be expected to interfere with such efforts, and consequently the risk to human health would be negligible.

Installation of FOTS and utilities to connect the new ATCT/TRACON to the existing utility systems would likely involve trenching up to 3 feet deep, or directional drilling no deeper than 4 feet bgs for direct-burial segments. Because shallow groundwater in the area has been measured at the ground surface to approximately 12 feet bgs, there would be potential to encounter groundwater during utility installation (FAA 2023c). Installation of new utility duct bank and HDPE piping conduit for direct-burial segments would not be expected to affect groundwater in the area as there would be no introduction of contaminants from this activity.

6.10.3 No Action Alternative

Under the No Action Alternative, the existing ATCT/TRACON would remain in its current location. No new buildings would be constructed, and no utilities would be installed. There would be no effects expected to wetlands, groundwater, or surface waters, other than those in the existing environment's state. FAI would continue to manage stormwater in accordance with the approved FAI SWPPP. FAI would also continue efforts to provide alternative drinking water to households affected by the PFAS groundwater plume beneath the airport.

6.10.3.1 Wetlands

Loss of freshwater wetlands at FAI would likely occur from planned developments. All projects would be evaluated individually for potentially affected wetlands and consultation and permitting, if determined necessary, would occur with USACE and ADEC for jurisdictional wetlands. Compensatory mitigation may be conducted for unavoidable loss of wetlands. Enforcement of state and federal requirements during the permitting process would make sure that collective effects to wetlands are minimized to the maximum extent practicable.

6.10.3.2 Floodplains

Future projects at FAI would likely decrease permeable surface area at the airport. Projects would adhere to the FNSB floodplain permitting process for those projects that would take place within a SFHA. It would not be expected that the increase in base flood elevation resulting from the loss of permeable surface area would significantly affect the floodplain's ability to moderate floodwaters. The Tanana and Chena River floodplain is broad and unconstrained; consequently, the impact of project displacement would most likely be negligible. Much of the FAI property and land east of South University Avenue is relatively

undisturbed and is partially vegetated with dense stands of spruce and birch, mixed with thickets of scrub alder and willow, where infiltration can occur, and the Chena River Lakes Flood Control Project protects the property from flooding (ADOT&PF 2014).

6.10.3.3 Surface Waters and Groundwater

The Proposed Action and other future planned actions at FAI would collectively increase the amount of impervious surface at the airport and subsequently the amount of surface water runoff. For projects that would repave or resurface existing areas, the combined effects to surface waters would be minimal to none, as the areas are already impervious. Stormwater conveyances and BMPs would be implemented for each project that adds new impervious surface area to manage the additional sheet flow and runoff by tying into the existing stormwater system. Surface water runoff from these areas would infiltrate within the airport boundary or be discharged into one of the airport's 11 drainage areas. Future planned development, including the Proposed Action, would be conducted in accordance with the CWA and APDES program; a stormwater permit would be obtained prior to project execution, and adherence to stormwater BMPs would minimize or eliminate effects to surface waters.

The Proposed Action and future developments would not remove groundwater and, therefore, would not be expected to collectively result in the substantial overall reduction in groundwater recharge. Although the area of impervious surfaces would be expected to increase as FAI continues its trend of infrastructure development, groundwater at the airport is shallow and influenced by surface water infiltration and both the Tanana and Chena Rivers (ADOT&PF 2014); therefore, recharge would not be expected to be significantly affected.

7.0 PUBLIC AND AGENCY INVOLVEMENT

7.1 Regulatory Context

Public and agency involvement during the environmental review process informs the public of an agency's proposed action, allows for meaningful engagement during the NEPA process, and ensures decision-makers are informed by the views of the public.

FAA requirements for public involvement during EA completion are discussed in FAA Order 1050.1F, which states that FAA or the applicant must involve the public, to the extent practicable, in preparing EAs.

Appendices A, B, and C include references, materials, and documents related to interagency and intergovernmental coordination, public outreach, and the Draft EA public comment period, respectively.

7.2 Public and Agency Involvement

Section 106 consultation letters and government-to-government consultation letters were distributed to federally recognized Tribes on 9 December 2024 (Appendix A). Project notification and scoping materials were distributed to agencies, Alaska Native organizations, airport stakeholders, and other interested parties identified in Table B-1 on 9 December 2024 (Appendix B). No responses were received from the initial Tribal and Alaska Native organization outreach effort. Consultation and coordination efforts will continue throughout the environmental review process, including distribution of the Draft EA, follow-up correspondence, and additional opportunities for review, comment, and discussion of the Proposed Action.

Public scoping letters providing an opportunity for early public review of the Proposed Action were mailed to local, state, and federal stakeholders on 10 and 11 April 2025 (Appendix B). Ten of the 33 letters were not delivered (Table B-1 [Appendix B]).

Persons and agencies contacted in the preparation of this EA are listed in Table B-1 in Appendix B. Responses received are listed in Table B-2 in Appendix B.

8.0 LIST OF PREPARERS

This EA has been prepared by Brice Solutions, LLC under the direction of FAA. The Brice individuals that contributed to the preparation of this EA are listed in Table 8-1.

Table 8-1 List of Preparers

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Notes:

For definitions, refer to the Acronyms and Abbreviations list (Appendix J).

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APPENDIX A
INTERAGENCY/INTERGOVERNMENTAL COORDINATION

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State Historic Preservation Office

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THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

Department of Natural Resources

DIVISION OF PARKS AND OUTDOOR RECREATION
Office of History & Archaeology

550 West 7th Avenue, Suite 1310
Anchorage, AK 99501-3561
907.269-8700

<http://dnr.alaska.gov/parks/oha>

January 3, 2025

Jamie L. Groves
Environmental Engineer
Federal Aviation Administration
222 West 7th Avenue, #14
Anchorage, AK 99513-7587

File No. 3130-1R FAA / 2024-01138

Subject: Determination of Eligibility and Effect for the Fairbanks ATCT (FAI-02835) and RTR (FAI-02370)

Dear Ms. Groves:

The Alaska State Historic Preservation Office (AK SHPO) received your correspondence (dated November 15, 2024) and the accompanying report titled *Fairbanks International Airport Airport Traffic Control Tower Relocation: Cultural Resources Survey Report and Section 106 Review* on November 30, 2024.

Following our review of the documentation provided, we concur that the Fairbanks ATCT (FAI-02835) and the RTR Building (FAI-02370) are not eligible for the National Register of Historic Places. Therefore, we concur with the finding of No Historic Properties Affected. Please note that our office may need to re-evaluate our concurrence if changes are made to the project's scope or design, or comments are received from other consulting parties.

As stipulated in 36 CFR 800.3, other consulting parties such as the local government and Tribes are required to be notified of the undertaking. Our response does not end the 30-day review period provided to other consulting parties.

Should unidentified cultural resources be discovered in the course of the project, work must be interrupted until the resources have been evaluated in terms of the National Register of Historic Places eligibility criteria (36 CFR 60.4), in consultation with our office. Please note that some sites can be deeply buried and that fossils are considered cultural resources subject to the Alaska Historic Preservation Act.

Thank you for the opportunity to comment. Please contact Amy Hellmich at 907-269-8724 or amy.hellmich@alaska.gov if you have any questions or if we can be of further assistance.

Sincerely,

A handwritten signature in blue ink that reads "Judith E. Bittner".

Judith E. Bittner,
State Historic Preservation Officer

JEB:ash



U.S. Department
of Transportation
**Federal Aviation
Administration**

Air Traffic Organization
Engineering Services
Western Service Area

FAA Alaska Region
222 West 7th Avenue #14
Anchorage, Alaska 99513-7587

15 November 2024

Ms. Judith Bittner
State Historic Preservation Officer
Office of History and Archaeology
550 West 7th Avenue, Suite 1310
Anchorage, AK 99501-3565

RE: Fairbanks International Airport Airport Traffic Control Tower Replacement

Dear Ms. Bittner:

The Federal Aviation Administration (FAA) is proposing to replace the existing Airport Traffic Control Tower (ATCT) at Fairbanks International Airport (FAI). The project consists of: (1) demolition of the existing ATCT; (2) construction of a new ATCT in a different location; and (3) connecting underground utilities from other FAA facilities and structures at several locations across the field at FAI.

Attached is a Section 106 survey and evaluation for the project, prepared by Brice Solutions, LLC, along with the required Office of History and Archaeology report coversheet. The report includes a complete National Register of Historic Places (NRHP) eligibility evaluations for the existing ATCT, which is listed with the Alaska Heritage Resource Survey as site FAI-02835, and the remote transmitter/receiver (RTR) building (FAI-02370).

Per the attached report and supporting documentation, FAA has determined that both structures - the existing ATCT (FAI-02835) and the RTR building (FAI-02370) - are not eligible for listing on the NRHP. Demolition of the ATCT will not constitute an adverse impact. FAA has thus determined a finding of **No Historic Properties Affected** for the proposed undertaking.

FAA requests your concurrence with our findings. We look forward to speaking with you soon. If you have any questions, I can be contacted at 907.841.9235, or Jamie.L.Groves@faa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Jamie L. Groves", with a long horizontal flourish extending to the right.

Jamie L. Groves
Environmental Engineer
AJW-2W16E, ATO, ES, WSA

Attachments:

1. Fairbanks International Airport Airport Traffic Control Tower Relocation: Cultural Resources Survey Report and Section 106 Review
2. Office of History and Archaeology Report Cover Sheet

Fairbanks International Airport Airport Traffic Control Tower Relocation: Cultural Resources Survey Report and Section 106 Review

Fairbanks, Alaska

Contract Number: 697-DCK-24-P-00082

Prepared for:



Federal Aviation Administration
Air Traffic Organization/Engineering
Services Western Service Area
222 W 7th Avenue #14
Anchorage, Alaska 99513

November 2024

Prepared By:



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Federally Recognized Tribes

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09 December 2024

Tracy Charles-Smith
President, Village of Dot Lake
PO Box 70494
Fairbanks, Alaska 99701

Subject: Fairbanks International Airport (FAI) Airport Traffic Control Tower (ATCT) /
Terminal Radar Approach Control Facility (TRACON) Replacement

Dear President Charles-Smith:

In respect of your tribal sovereignty and in recognition of the Federal Aviation Administration's (FAA) trust responsibility to Federally Recognized Tribes, I am writing to notify you that the FAA is preparing an Environmental Assessment (EA) under the National Environmental Policy Act to evaluate potential environmental impacts associated with replacing the Airport Air Traffic Control Tower (ATCT)/Terminal Radar Approach Control Facility (TRACON) at Fairbanks International Airport (FAI). Per Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR Part 800, the FAA is accounting for various environmental concerns and engaging early with Tribal governments as it formulates the undertaking.

As part of the proposed undertaking, the ATCT replacement includes demolishing the existing ATCT/TRACON and base building, constructing a new ATCT facility, and connecting underground utilities from other FAA facilities and structures at several locations across the field at FAI. The new ATCT cab will be approximately 214 feet above ground level and 550 square feet. The ATCT shaft will be designed as a non-occupied shaft (there will not be any administrative or operational functions). Please see the attached cultural resources reports for information regarding project location and Area of Potential Effect (APE).

Confidentiality

We understand that you may have concerns regarding the confidentiality of information on areas or resources of religious, traditional, and cultural importance to the Tribe. The FAA would be

happy to discuss these concerns and develop procedures to ensure the confidentiality of such information is maintained under government-to-government consultation.

Purpose of Government-to-Government Consultation

The FAA is in the preliminary stages of reviewing the proposed undertaking and invites you to review the information on the proposed project and evaluate whether you believe there may be potential for this action to affect Tribal trust and/or subsistence resources. The FAA is offering to consult on concerns that uniquely or significantly affect your Tribe related to the proposed project. Early identification of Tribal concerns will allow the FAA to consider ways to avoid and minimize potential impacts to Tribal resources and/or cultural practices as project planning and alternatives are developed and refined.

This invitation is made pursuant to Federal Executive Order 13175 “Consultation and Coordination with Indian Tribal Governments” and FAA’s Order 1210.20 “American Indian and Alaska Native Tribal Consultation Policy and Procedures” to ensure that Federally Recognized Tribes are given the opportunity to provide meaningful and timely input regarding proposed FAA actions that uniquely or significantly affect Tribes.

In accordance with the NHPA, the FAA would like to initiate government-to-government consultation regarding the FAI ATCT replacement. The FAA requests your input in identifying any issues or areas of concern you feel should be addressed in the environmental analysis. Additionally, please let us know if you believe this undertaking might adversely affect any historic properties of religious and cultural significance to the Village of Dot Lake.

If you have any questions, I can be contacted at 907-229-7923, or Jamie.L.Groves@faa.gov. Thank you for your attention to this matter. Alternatively, you may contact the FAA’s Alaskan Region Tribal Consultation Official (RTCO) Kendall Campbell, Alaska Region Airports Division, at 907-271-5030, or by e-mail at Kendall.D.Campbell@faa.gov.

Sincerely,



Jamie L. Groves
Environmental Engineer
AJW-2W16E, ATO, ES, WSA

Attachments:

1. *Fairbanks International Airport Airport Traffic Control Tower Relocation: Cultural Resources Survey Report and Section 106 Review*

Fairbanks International Airport Airport Traffic Control Tower Relocation: Cultural Resources Survey Report and Section 106 Review

Fairbanks, Alaska

Contract Number: 697-DCK-24-P-00082

Prepared for:



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09 December 2024

Elias Saylor
President, Healy Lake Village
600 University Avenue, Suite 100
Fairbanks, Alaska 99709

Subject: Fairbanks International Airport (FAI) Airport Traffic Control Tower (ATCT) /
Terminal Radar Approach Control Facility (TRACON) Replacement

Dear President Saylor:

In respect of your tribal sovereignty and in recognition of the Federal Aviation Administration's (FAA) trust responsibility to Federally Recognized Tribes, I am writing to notify you that the FAA is preparing an Environmental Assessment (EA) under the National Environmental Policy Act to evaluate potential environmental impacts associated with replacing the Airport Air Traffic Control Tower (ATCT)/Terminal Radar Approach Control Facility (TRACON) at Fairbanks International Airport (FAI). Per Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR Part 800, the FAA is accounting for various environmental concerns and engaging early with Tribal governments as it formulates the undertaking.

As part of the proposed undertaking, the ATCT replacement includes demolishing the existing ATCT/TRACON and base building, constructing a new ATCT facility, and connecting underground utilities from other FAA facilities and structures at several locations across the field at FAI. The new ATCT cab will be approximately 214 feet above ground level and 550 square feet. The ATCT shaft will be designed as a non-occupied shaft (there will not be any administrative or operational functions). Please see the attached cultural resources reports for information regarding project location and Area of Potential Effect (APE).

Confidentiality

We understand that you may have concerns regarding the confidentiality of information on areas or resources of religious, traditional, and cultural importance to the Tribe. The FAA would be

happy to discuss these concerns and develop procedures to ensure the confidentiality of such information is maintained under government-to-government consultation.

Purpose of Government-to-Government Consultation

The FAA is in the preliminary stages of reviewing the proposed undertaking and invites you to review the information on the proposed project and evaluate whether you believe there may be potential for this action to affect Tribal trust and/or subsistence resources. The FAA is offering to consult on concerns that uniquely or significantly affect your Tribe related to the proposed project. Early identification of Tribal concerns will allow the FAA to consider ways to avoid and minimize potential impacts to Tribal resources and/or cultural practices as project planning and alternatives are developed and refined.

This invitation is made pursuant to Federal Executive Order 13175 “Consultation and Coordination with Indian Tribal Governments” and FAA’s Order 1210.20 “American Indian and Alaska Native Tribal Consultation Policy and Procedures” to ensure that Federally Recognized Tribes are given the opportunity to provide meaningful and timely input regarding proposed FAA actions that uniquely or significantly affect Tribes.

In accordance with the NHPA, the FAA would like to initiate government-to-government consultation regarding the FAI ATCT replacement. The FAA requests your input in identifying any issues or areas of concern you feel should be addressed in the environmental analysis. Additionally, please let us know if you believe this undertaking might adversely affect any historic properties of religious and cultural significance to Healy Lake Village.

If you have any questions, I can be contacted at 907-229-7923, or Jamie.L.Groves@faa.gov. Thank you for your attention to this matter. Alternatively, you may contact the FAA’s Alaskan Region Tribal Consultation Official (RTCO) Kendall Campbell, Alaska Region Airports Division, at 907-271-5030, or by e-mail at Kendall.D.Campbell@faa.gov.

Sincerely,



Jamie L. Groves
Environmental Engineer
AJW-2W16E, ATO, ES, WSA

Attachments:

1. *Fairbanks International Airport Airport Traffic Control Tower Relocation: Cultural Resources Survey Report and Section 106 Review*

Fairbanks International Airport Airport Traffic Control Tower Relocation: Cultural Resources Survey Report and Section 106 Review

Fairbanks, Alaska

Contract Number: 697-DCK-24-P-00082

Prepared for:



Federal Aviation Administration
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09 December 2024

Caroline Ketzler
President, Nenana Native Association
PO Box 369
Nenana, Alaska 99760

Subject: Fairbanks International Airport (FAI) Airport Traffic Control Tower (ATCT) /
Terminal Radar Approach Control Facility (TRACON) Replacement

Dear President Ketzler:

In respect of your tribal sovereignty and in recognition of the Federal Aviation Administration's (FAA) trust responsibility to Federally Recognized Tribes, I am writing to notify you that the FAA is preparing an Environmental Assessment (EA) under the National Environmental Policy Act to evaluate potential environmental impacts associated with replacing the Airport Air Traffic Control Tower (ATCT)/Terminal Radar Approach Control Facility (TRACON) at Fairbanks International Airport (FAI). Per Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR Part 800, the FAA is accounting for various environmental concerns and engaging early with Tribal governments as it formulates the undertaking.

As part of the proposed undertaking, the ATCT replacement includes demolishing the existing ATCT/TRACON and base building, constructing a new ATCT facility, and connecting underground utilities from other FAA facilities and structures at several locations across the field at FAI. The new ATCT cab will be approximately 214 feet above ground level and 550 square feet. The ATCT shaft will be designed as a non-occupied shaft (there will not be any administrative or operational functions). Please see the attached cultural resources reports for information regarding project location and Area of Potential Effect (APE).

Confidentiality

We understand that you may have concerns regarding the confidentiality of information on areas or resources of religious, traditional, and cultural importance to the Tribe. The FAA would be

happy to discuss these concerns and develop procedures to ensure the confidentiality of such information is maintained under government-to-government consultation.

Purpose of Government-to-Government Consultation

The FAA is in the preliminary stages of reviewing the proposed undertaking and invites you to review the information on the proposed project and evaluate whether you believe there may be potential for this action to affect Tribal trust and/or subsistence resources. The FAA is offering to consult on concerns that uniquely or significantly affect your Tribe related to the proposed project. Early identification of Tribal concerns will allow the FAA to consider ways to avoid and minimize potential impacts to Tribal resources and/or cultural practices as project planning and alternatives are developed and refined.

This invitation is made pursuant to Federal Executive Order 13175 “Consultation and Coordination with Indian Tribal Governments” and FAA’s Order 1210.20 “American Indian and Alaska Native Tribal Consultation Policy and Procedures” to ensure that Federally Recognized Tribes are given the opportunity to provide meaningful and timely input regarding proposed FAA actions that uniquely or significantly affect Tribes.

In accordance with the NHPA, the FAA would like to initiate government-to-government consultation regarding the FAI ATCT replacement. The FAA requests your input in identifying any issues or areas of concern you feel should be addressed in the environmental analysis. Additionally, please let us know if you believe this undertaking might adversely affect any historic properties of religious and cultural significance to Nenana Native Association.

If you have any questions, I can be contacted at 907-229-7923, or Jamie.L.Groves@faa.gov. Thank you for your attention to this matter. Alternatively, you may contact the FAA’s Alaskan Region Tribal Consultation Official (RTCO) Kendall Campbell, Alaska Region Airports Division, at 907-271-5030, or by e-mail at Kendall.D.Campbell@faa.gov.

Sincerely,



Jamie L. Groves
Environmental Engineer
AJW-2W16E, ATO, ES, WSA

Attachments:

1. *Fairbanks International Airport Airport Traffic Control Tower Relocation: Cultural Resources Survey Report and Section 106 Review*

Fairbanks International Airport Airport Traffic Control Tower Relocation: Cultural Resources Survey Report and Section 106 Review

Fairbanks, Alaska

Contract Number: 697-DCK-24-P-00082

Prepared for:



Federal Aviation Administration
Air Traffic Organization/Engineering
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November 2024

Prepared By:



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Air Traffic Organization
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FAA Alaska Region
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09 December 2024

William Albert
President, Northway Village
PO Box 516
Northway, Alaska 99764-0516

Subject: Fairbanks International Airport (FAI) Airport Traffic Control Tower (ATCT) /
Terminal Radar Approach Control Facility (TRACON) Replacement

Dear President Albert:

In respect of your tribal sovereignty and in recognition of the Federal Aviation Administration's (FAA) trust responsibility to Federally Recognized Tribes, I am writing to notify you that the FAA is preparing an Environmental Assessment (EA) under the National Environmental Policy Act to evaluate potential environmental impacts associated with replacing the Airport Air Traffic Control Tower (ATCT)/Terminal Radar Approach Control Facility (TRACON) at Fairbanks International Airport (FAI). Per Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR Part 800, the FAA is accounting for various environmental concerns and engaging early with Tribal governments as it formulates the undertaking.

As part of the proposed undertaking, the ATCT replacement includes demolishing the existing ATCT/TRACON and base building, constructing a new ATCT facility, and connecting underground utilities from other FAA facilities and structures at several locations across the field at FAI. The new ATCT cab will be approximately 214 feet above ground level and 550 square feet. The ATCT shaft will be designed as a non-occupied shaft (there will not be any administrative or operational functions). Please see the attached cultural resources reports for information regarding project location and Area of Potential Effect (APE).

Confidentiality

We understand that you may have concerns regarding the confidentiality of information on areas or resources of religious, traditional, and cultural importance to the Tribe. The FAA would be

happy to discuss these concerns and develop procedures to ensure the confidentiality of such information is maintained under government-to-government consultation.

Purpose of Government-to-Government Consultation

The FAA is in the preliminary stages of reviewing the proposed undertaking and invites you to review the information on the proposed project and evaluate whether you believe there may be potential for this action to affect Tribal trust and/or subsistence resources. The FAA is offering to consult on concerns that uniquely or significantly affect your Tribe related to the proposed project. Early identification of Tribal concerns will allow the FAA to consider ways to avoid and minimize potential impacts to Tribal resources and/or cultural practices as project planning and alternatives are developed and refined.

This invitation is made pursuant to Federal Executive Order 13175 “Consultation and Coordination with Indian Tribal Governments” and FAA’s Order 1210.20 “American Indian and Alaska Native Tribal Consultation Policy and Procedures” to ensure that Federally Recognized Tribes are given the opportunity to provide meaningful and timely input regarding proposed FAA actions that uniquely or significantly affect Tribes.

In accordance with the NHPA, the FAA would like to initiate government-to-government consultation regarding the FAI ATCT replacement. The FAA requests your input in identifying any issues or areas of concern you feel should be addressed in the environmental analysis. Additionally, please let us know if you believe this undertaking might adversely affect any historic properties of religious and cultural significance to Northway Village.

If you have any questions, I can be contacted at 907-229-7923, or Jamie.L.Groves@faa.gov. Thank you for your attention to this matter. Alternatively, you may contact the FAA’s Alaskan Region Tribal Consultation Official (RTCO) Kendall Campbell, Alaska Region Airports Division, at 907-271-5030, or by e-mail at Kendall.D.Campbell@faa.gov.

Sincerely,



Jamie L. Groves
Environmental Engineer
AJW-2W16E, ATO, ES, WSA

Attachments:

1. *Fairbanks International Airport Airport Traffic Control Tower Relocation: Cultural Resources Survey Report and Section 106 Review*

Fairbanks International Airport Airport Traffic Control Tower Relocation: Cultural Resources Survey Report and Section 106 Review

Fairbanks, Alaska

Contract Number: 697-DCK-24-P-00082

Prepared for:



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November 2024

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U.S. Department
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09 December 2024

Herbert Demit
President, Native Village of Tanacross
PO Box 76009
Tanacross, Alaska 99776-6009

Subject: Fairbanks International Airport (FAI) Airport Traffic Control Tower (ATCT) /
Terminal Radar Approach Control Facility (TRACON) Replacement

Dear President Demit:

In respect of your tribal sovereignty and in recognition of the Federal Aviation Administration's (FAA) trust responsibility to Federally Recognized Tribes, I am writing to notify you that the FAA is preparing an Environmental Assessment (EA) under the National Environmental Policy Act to evaluate potential environmental impacts associated with replacing the Airport Air Traffic Control Tower (ATCT)/Terminal Radar Approach Control Facility (TRACON) at Fairbanks International Airport (FAI). Per Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR Part 800, the FAA is accounting for various environmental concerns and engaging early with Tribal governments as it formulates the undertaking.

As part of the proposed undertaking, the ATCT replacement includes demolishing the existing ATCT/TRACON and base building, constructing a new ATCT facility, and connecting underground utilities from other FAA facilities and structures at several locations across the field at FAI. The new ATCT cab will be approximately 214 feet above ground level and 550 square feet. The ATCT shaft will be designed as a non-occupied shaft (there will not be any administrative or operational functions). Please see the attached cultural resources reports for information regarding project location and Area of Potential Effect (APE).

Confidentiality

We understand that you may have concerns regarding the confidentiality of information on areas or resources of religious, traditional, and cultural importance to the Tribe. The FAA would be

happy to discuss these concerns and develop procedures to ensure the confidentiality of such information is maintained under government-to-government consultation.

Purpose of Government-to-Government Consultation

The FAA is in the preliminary stages of reviewing the proposed undertaking and invites you to review the information on the proposed project and evaluate whether you believe there may be potential for this action to affect Tribal trust and/or subsistence resources. The FAA is offering to consult on concerns that uniquely or significantly affect your Tribe related to the proposed project. Early identification of Tribal concerns will allow the FAA to consider ways to avoid and minimize potential impacts to Tribal resources and/or cultural practices as project planning and alternatives are developed and refined.

This invitation is made pursuant to Federal Executive Order 13175 “Consultation and Coordination with Indian Tribal Governments” and FAA’s Order 1210.20 “American Indian and Alaska Native Tribal Consultation Policy and Procedures” to ensure that Federally Recognized Tribes are given the opportunity to provide meaningful and timely input regarding proposed FAA actions that uniquely or significantly affect Tribes.

In accordance with the NHPA, the FAA would like to initiate government-to-government consultation regarding the FAI ATCT replacement. The FAA requests your input in identifying any issues or areas of concern you feel should be addressed in the environmental analysis. Additionally, please let us know if you believe this undertaking might adversely affect any historic properties of religious and cultural significance to the Native Village of Tanacross.

If you have any questions, I can be contacted at 907-229-7923, or Jamie.L.Groves@faa.gov. Thank you for your attention to this matter. Alternatively, you may contact the FAA’s Alaskan Region Tribal Consultation Official (RTCO) Kendall Campbell, Alaska Region Airports Division, at 907-271-5030, or by e-mail at Kendall.D.Campbell@faa.gov.

Sincerely,



Jamie L. Groves
Environmental Engineer
AJW-2W16E, ATO, ES, WSA

Attachments:

1. *Fairbanks International Airport Airport Traffic Control Tower Relocation: Cultural Resources Survey Report and Section 106 Review*

Fairbanks International Airport Airport Traffic Control Tower Relocation: Cultural Resources Survey Report and Section 106 Review

Fairbanks, Alaska

Contract Number: 697-DCK-24-P-00082

Prepared for:



Federal Aviation Administration
Air Traffic Organization/Engineering
Services Western Service Area
222 W 7th Avenue #14
Anchorage, Alaska 99513

November 2024

Prepared By:



Brice Solutions, LLC
3700 Centerpoint Drive, Suite 8133
Anchorage, Alaska 99503
907.275.2896 PH
www.BriceSolutions.com



U.S. Department
of Transportation
**Federal Aviation
Administration**

Air Traffic Organization
Engineering Services
Western Service Area

FAA Alaska Region
222 West 7th Avenue #14
Anchorage, Alaska 99513-7587

09 December 2024

Michael Sam
President, Native Village of Tetlin
PO Box 797
Tok, Alaska 99780

Subject: Fairbanks International Airport (FAI) Airport Traffic Control Tower (ATCT) /
Terminal Radar Approach Control Facility (TRACON) Replacement

Dear President Sam:

In respect of your tribal sovereignty and in recognition of the Federal Aviation Administration's (FAA) trust responsibility to Federally Recognized Tribes, I am writing to notify you that the FAA is preparing an Environmental Assessment (EA) under the National Environmental Policy Act to evaluate potential environmental impacts associated with replacing the Airport Air Traffic Control Tower (ATCT)/Terminal Radar Approach Control Facility (TRACON) at Fairbanks International Airport (FAI). Per Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR Part 800, the FAA is accounting for various environmental concerns and engaging early with Tribal governments as it formulates the undertaking.

As part of the proposed undertaking, the ATCT replacement includes demolishing the existing ATCT/TRACON and base building, constructing a new ATCT facility, and connecting underground utilities from other FAA facilities and structures at several locations across the field at FAI. The new ATCT cab will be approximately 214 feet above ground level and 550 square feet. The ATCT shaft will be designed as a non-occupied shaft (there will not be any administrative or operational functions). Please see the attached cultural resources reports for information regarding project location and Area of Potential Effect (APE).

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We understand that you may have concerns regarding the confidentiality of information on areas or resources of religious, traditional, and cultural importance to the Tribe. The FAA would be

happy to discuss these concerns and develop procedures to ensure the confidentiality of such information is maintained under government-to-government consultation.

Purpose of Government-to-Government Consultation

The FAA is in the preliminary stages of reviewing the proposed undertaking and invites you to review the information on the proposed project and evaluate whether you believe there may be potential for this action to affect Tribal trust and/or subsistence resources. The FAA is offering to consult on concerns that uniquely or significantly affect your Tribe related to the proposed project. Early identification of Tribal concerns will allow the FAA to consider ways to avoid and minimize potential impacts to Tribal resources and/or cultural practices as project planning and alternatives are developed and refined.

This invitation is made pursuant to Federal Executive Order 13175 “Consultation and Coordination with Indian Tribal Governments” and FAA’s Order 1210.20 “American Indian and Alaska Native Tribal Consultation Policy and Procedures” to ensure that Federally Recognized Tribes are given the opportunity to provide meaningful and timely input regarding proposed FAA actions that uniquely or significantly affect Tribes.

In accordance with the NHPA, the FAA would like to initiate government-to-government consultation regarding the FAI ATCT replacement. The FAA requests your input in identifying any issues or areas of concern you feel should be addressed in the environmental analysis. Additionally, please let us know if you believe this undertaking might adversely affect any historic properties of religious and cultural significance to the Native Village of Tetlin.

If you have any questions, I can be contacted at 907-229-7923, or Jamie.L.Groves@faa.gov. Thank you for your attention to this matter. Alternatively, you may contact the FAA’s Alaskan Region Tribal Consultation Official (RTCO) Kendall Campbell, Alaska Region Airports Division, at 907-271-5030, or by e-mail at Kendall.D.Campbell@faa.gov.

Sincerely,



Jamie L. Groves
Environmental Engineer
AJW-2W16E, ATO, ES, WSA

Attachments:

1. *Fairbanks International Airport Airport Traffic Control Tower Relocation: Cultural Resources Survey Report and Section 106 Review*

Fairbanks International Airport Airport Traffic Control Tower Relocation: Cultural Resources Survey Report and Section 106 Review

Fairbanks, Alaska

Contract Number: 697-DCK-24-P-00082

Prepared for:



Federal Aviation Administration
Air Traffic Organization/Engineering
Services Western Service Area
222 W 7th Avenue #14
Anchorage, Alaska 99513

November 2024

Prepared By:



Brice Solutions, LLC
3700 Centerpoint Drive, Suite 8133
Anchorage, Alaska 99503
907.275.2896 PH
www.BriceSolutions.com

U.S. Army Corps of Engineers

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DEPARTMENT OF THE ARMY
ALASKA DISTRICT, U.S. ARMY CORPS OF ENGINEERS
REGULATORY DIVISION
P.O. BOX 6898
JBER, AK 99506-0898

April 10, 2025

Regulatory Division
POA-2022-00402

Ms. Jamie Groves
Federal Aviation Administration
222 West 7th Avenue
Anchorage, AK 99513

Dear Ms. Groves:

This letter is in response to your March 11, 2025 request for an Approved Jurisdictional Determination (AJD) for a review area located within Section 19, T. 1 S., R. 1 W. and Section 24, T. 1 S., R. 2 W., Fairbanks Meridian; Latitude 64.8121° N., Longitude 147.8430° W.; Fairbanks North Star Borough; Fairbanks International Airport Traffic Control Tower Lease Lot 6A at 3729 University Avenue South near Fairbanks, Alaska. (

Based on our review of information available to our office, the information you provided, and an on-site assessment on August 25, 2022 during a pre-application meeting, we have determined that the review area contains wetlands and waters that are not a water of the U.S., under the U.S. Army Corps of Engineers (Corps) regulatory jurisdiction. The wetlands and waters on your property are non-navigable, lack a continuous surface connection with a requisite jurisdictional water, and have no connection to interstate or foreign commerce. Therefore, pursuant to federal guidance, regulation, and law, a Department of the Army (DA) permit is not required for any activities that may occur within the review area.

A copy of the AJD form is available at:
<https://www.poa.usace.army.mil/Missions/Regulatory/Jurisdictional-Determinations/Issued-Approved-Jurisdictional-Determinations/> under your file number.

This AJD does not establish any precedent with respect to any other JD under Section 404 of the Clean Water Act.

The wetlands and waters in the review area were reviewed pursuant to Section 404 of the Clean Water Act which requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including wetlands, prior to conducting the work (33 U.S.C. 1344). For regulatory purposes, the Corps defines wetlands as those areas that are inundated or saturated by surface or groundwater at a

frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

This AJD is valid for a period of five (5) years from the date listed on the AJD form, unless new information supporting a revision is provided to us before the expiration date. Enclosed is a Notification of Administrative Appeals Options and Process and Request for Appeal form regarding this AJD (see section labeled "Approved Jurisdictional Determination").

Nothing in this letter excuses you from compliance with other federal, state, or local statutes, ordinances, or regulations.

Please contact me via email at Gregory.j.mazer@usace.army.mil, by mail at the address above, by phone at (907) 347-9059, or toll free from within Alaska at (800) 478-2712, if you have questions. For more information about the Regulatory Program, please visit our website at www.poa.usace.army.mil/Missions/Regulatory.

Sincerely,

A handwritten signature in cursive script that reads "Greg Mazer".

Greg Mazer
Project Manager

Enclosures

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Ms. Jamie Groves, Federal Aviation Administration		File Number: POA-2022-00402	Date: April 10, 2025
Attached is:			See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
	PERMIT DENIAL	C	
X	APPROVED JURISDICTIONAL DETERMINATION	D	
	PRELIMINARY JURISDICTIONAL DETERMINATION	E	

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at

http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Greg Mazer, PM
Alaska District Corps of Engineers
Fairbanks Regulatory Field Office (CEPOA-RD-N-C)
2175 University Avenue, Suite 201E
Fairbanks, Alaska 99709-4927
(907) 347-9059

If you only have questions regarding the appeal process you may also contact:

Ms. Kate Bliss
Regulatory Program Manager
U.S. Army Corps of Engineers, Pacific Ocean Division
CEPOD-PDC, Bldg 525
Fort Shafter, HI 96858-5440
(808) 835-4626
kate.m.bliss@usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:

U.S. Army Corps of Engineers – Alaska District - Regulatory Division
REQUEST FOR CORPS JURISDICTIONAL DETERMINATION (JD) / DELINEATION
(For Jurisdictional Status and Identifying Wetlands and Other Aquatic Resources)

The Regulatory Division is now offering paperless/electronic documents as a primary means of accepting project submittals and responding to requests. While electronic submittals are preferred, we will continue to accept paper documents that meet our file requirements in order to accommodate those with limited computer access. Depending on the project location, requests should be submitted to the appropriate office below. Please visit <https://www.poa.usace.army.mil/Missions/Regulatory/Jurisdictional-Determinations/> and <https://www.poa.usace.army.mil/Missions/Regulatory/How-to-Apply/> for additional information on jurisdictional determinations, permit applications, and electronic submittals.

U.S. Army Corps of Engineers (USACE) Regulatory Division, CEPOA-RD P.O. Box 6898, 2204 3rd St. JBER, AK 99506-0898 regpagemaster@usace.army.mil	USACE Regulatory Division Southeast Section, Juneau Office P.O. Box 22270 Juneau, AK 99802-9998 regpagemaster@usace.army.mil	USACE Regulatory Division Southeast Section, Kenai Field Office P.O. Box 6898, 2204 3rd St. JBER, AK 99506-0898 cepoa-rd-kenai@usace.army.mil	USACE Regulatory Division North Central Section 1046 Marks Rd Fort Wainwright, AK 99703 regpagemaster@usace.army.mil
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I. PROPERTY AND AGENT INFORMATION

A. Site Details/Location:

Site Name: FAA Fairbanks International Airport (FAI) Airport Traffic Control Tower ATCT/TRACON Lease Lot 6A Date: 03/10/2025
City: Fairbanks, Alaska Borough: North Star Borough
Latitude/Longitude: 64.812081°N / -147.842980°W Acreage: 5.946
Property Address(es): 3729 University Avenue South, Fairbanks, Alaska 99701

An accurate depiction of the review area must be provided (survey, map, **OR** GPS coordinates). **See the attached Checklist for information that should be submitted for a complete and proper submittal.**

B. Requestor of Jurisdictional Determination/Delineation (if there are multiple property owners, please attach additional pages)

Name: Jamie L. Groves Company Name (if applicable): Federal Aviation Administration
Address: 222 West 7th Avenue, Anchorage, Alaska 99513 3rd Floor
Phone: 907-229-7923 Email: jamie.l.groves@faa.gov
Check one: ☐ I currently own this property ☐ I plan to purchase this property ☒ Other: Lease from FAI Airport

C. Agent/Environmental Consultant Acting on Behalf of the Requestor (if applicable):

Consultant/Agent Name: _____
Company Name: _____
Address: _____ Phone: _____
Email: _____

II. REASON FOR REQUEST (check all that apply):

- ☐ I intend to construct/develop a project or perform activities on this site which would be designed to avoid all aquatic resources.
- ☐ I intend to construct/develop a project or perform activities on this site which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
- ☒ I intend to construct/develop a project or perform activities on this site which may require authorization from the Corps, and the Jurisdictional Determination would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.
- ☐ I intend to construct/develop a project or perform activities on this site which may require authorization from the Corps; this request is accompanied by my permit application and the jurisdictional determination is to be used in the permitting process.
- ☐ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is subject to the ebb and flow of the tide.
- ☐ A Corps jurisdictional determination is required to obtain my local/state authorization.
- ☐ I intend to contest jurisdiction over a particular aquatic resource and request the Corps to confirm that jurisdiction does/does not exist over the aquatic resource on the parcel.
- ☐ I believe that the site may be comprised entirely of dry land.
- ☐ Other: _____

*Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.

Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.

Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.

Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an jurisdictional determination cannot be evaluated nor can a jurisdictional determination be issued.

III. TYPE OF REQUEST:

¹**Delineation Concurrence (DC)** – A DC provides concurrence that the delineated boundaries of wetlands on a property are a reasonable representation of the aquatic resources on-site. A DC does not address the jurisdictional status of the aquatic resources. (NOTE: A DC is generally the quickest type of standalone request for the Corps to review and process.)

²**Approved** – An AJD is defined in Corps regulations at 33 CFR 331.2. As explained in further detail in RGL 16-01, an AJD is used to indicate that this office has identified the presence or absence of wetlands and/or other aquatic resources on a site, including their accurate location(s) and boundaries, as well as their jurisdictional status. AJDs are valid for 5 years.

³**Preliminary** – A PJD is defined in Corps regulations at 33 CFR 331.2. As explained in further detail in RGL 16-01, a PJD is used to indicate that this office has identified the approximate location(s) and boundaries of wetlands and/or other aquatic resources on a site that are presumed to be subject to regulatory jurisdiction of the Corps of Engineers. Unlike an AJD, a PJD does not represent a definitive, official determination that there are, or that there are not, jurisdictional aquatic resources on a site, and does not have an expiration date.

⁴ **“No Permit Required” (NPR) Letter**- A NPR letter may be provided by the Corps to notify the requestor that an activity will not require a permit (authorization) from the Corps; this letter can only be used if the proposed activity is not a regulated activity, regardless of where the activity may occur. A NPR letter cannot be used to indicate the presence or absence of wetlands and/or other aquatic resources, nor can it be used to determine their jurisdictional status.

NOTE 1: Pre-approved Delineations and/or JDs are NOT a pre-requisite for submitting a DA permit application. Requests for JDs and/or DCs that are not associated with a DA permit application (Standalone Delineation / JD requests) will be reviewed and processed as time allows and based on available resources.

NOTE 2: Although not a requirement, it is recommended that Standalone requests be prepared and submitted by an environmental consultant to expedite the review process.

Select the Appropriate Request:

☐ **Pre-Construction Notification or Department of the Army permit application**

- ☐ with Delineation only (no written concurrence of delineation)
- ☐ with Delineation Concurrence¹
- ☐ with Preliminary Jurisdictional Determination (PJD)³
- ☐ with Approved Jurisdictional Determination (AJD)²

☒ **Standalone Delineation / Jurisdictional Determination**

Standalone Delineation / Jurisdictional Determination requests will be reviewed and processed as time allows and based on available resources.

- ☐ Delineation Concurrence¹
- ☐ Preliminary Jurisdictional Determination (PJD)³
- ☒ Approved Jurisdictional Determination (AJD)²

☐ I request that the **Corps delineate** the wetlands and/or other aquatic resources that may be present on my property.

These requests have historically been conducted as a courtesy for private property owners for minor actions. Due to current workload and priorities, the Alaska District Regulatory Division will only provide this service on a limited, case-by-case basis for private individuals on small tracts of land.

- ☐ with the attached Pre-Construction Notification or Department of the Army permit application
(This may delay processing times. The review of the permit application will not start until the delineation has been completed by the Corps.)
- ☐ with a Delineation Only, an AJD or PJD

☐ **“No Permit Required” (NPR) Letter** as I believe my proposed activity is not regulated⁴

☐ **Unclear** and require additional information to inform my decision.

IV. LEGAL RIGHT OF ENTRY

By signing below, I am indicating that I have the authority, or am acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant U.S. Army Corps of Engineers personnel right of entry to legally access the property(ies) subject to this request for the purposes of conducting on-site investigations (e.g., digging and refilling shallow holes) and issuing a jurisdictional determination. I acknowledge that my signature is an affirmation that I possess the requisite property rights to request a jurisdictional determination on the properties subject to this request.

222 W. 7th Ave. Anchorage, AK 99513

Mailing Address

jamie.l.groves@faa.gov

Email Address

JAMIE L GROVES

Digitally signed by JAMIE L GROVES
Date: 2025.03.10 16:38:54 -08'00'

*Signature:

3729 University Ave. S, Fairbanks, AK 99701

Property Address

907-229-7923

Daytime Phone Number

Jamie L. Groves

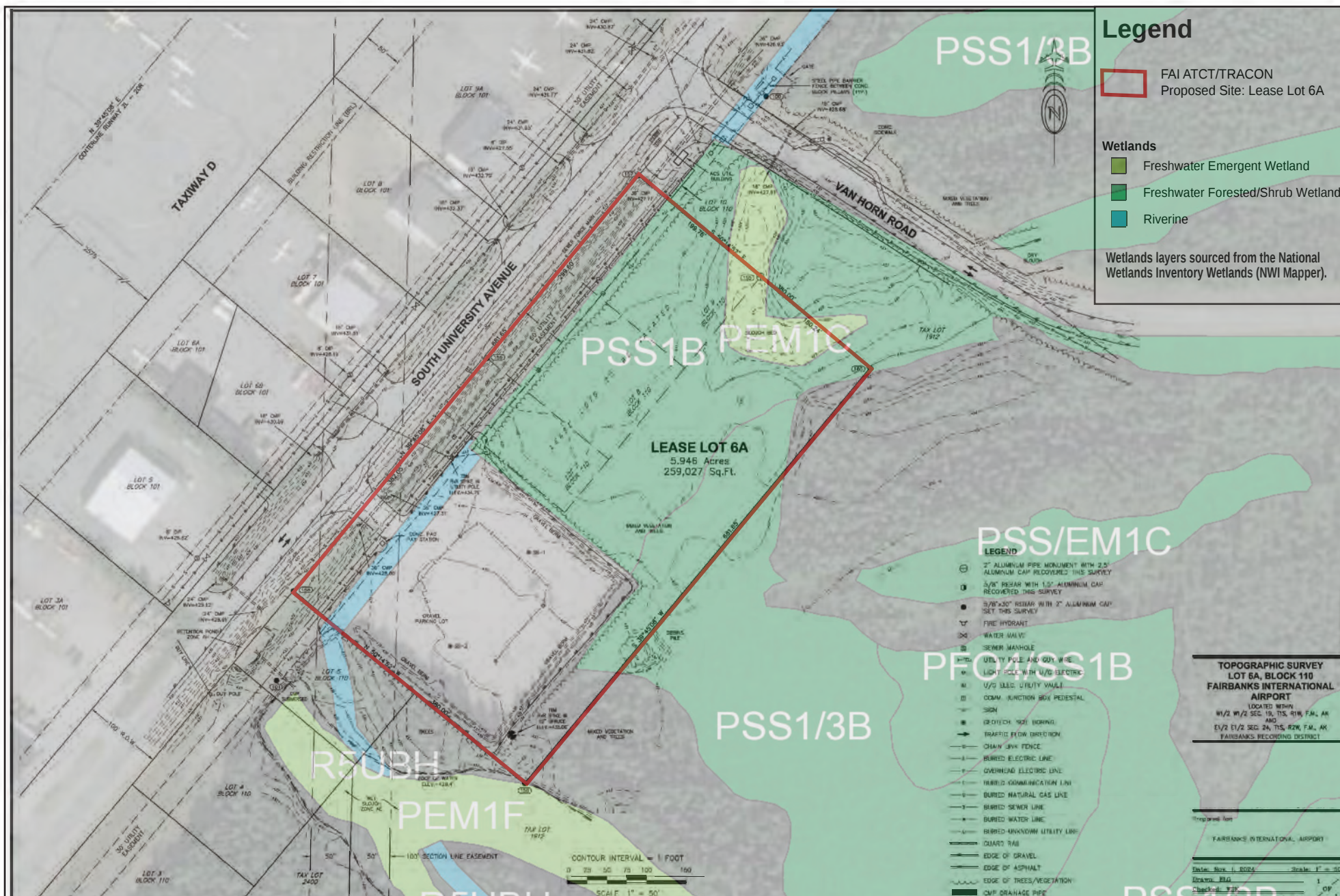
Printed Name and Date

^{*}**Authorities:** Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.

Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.

Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.

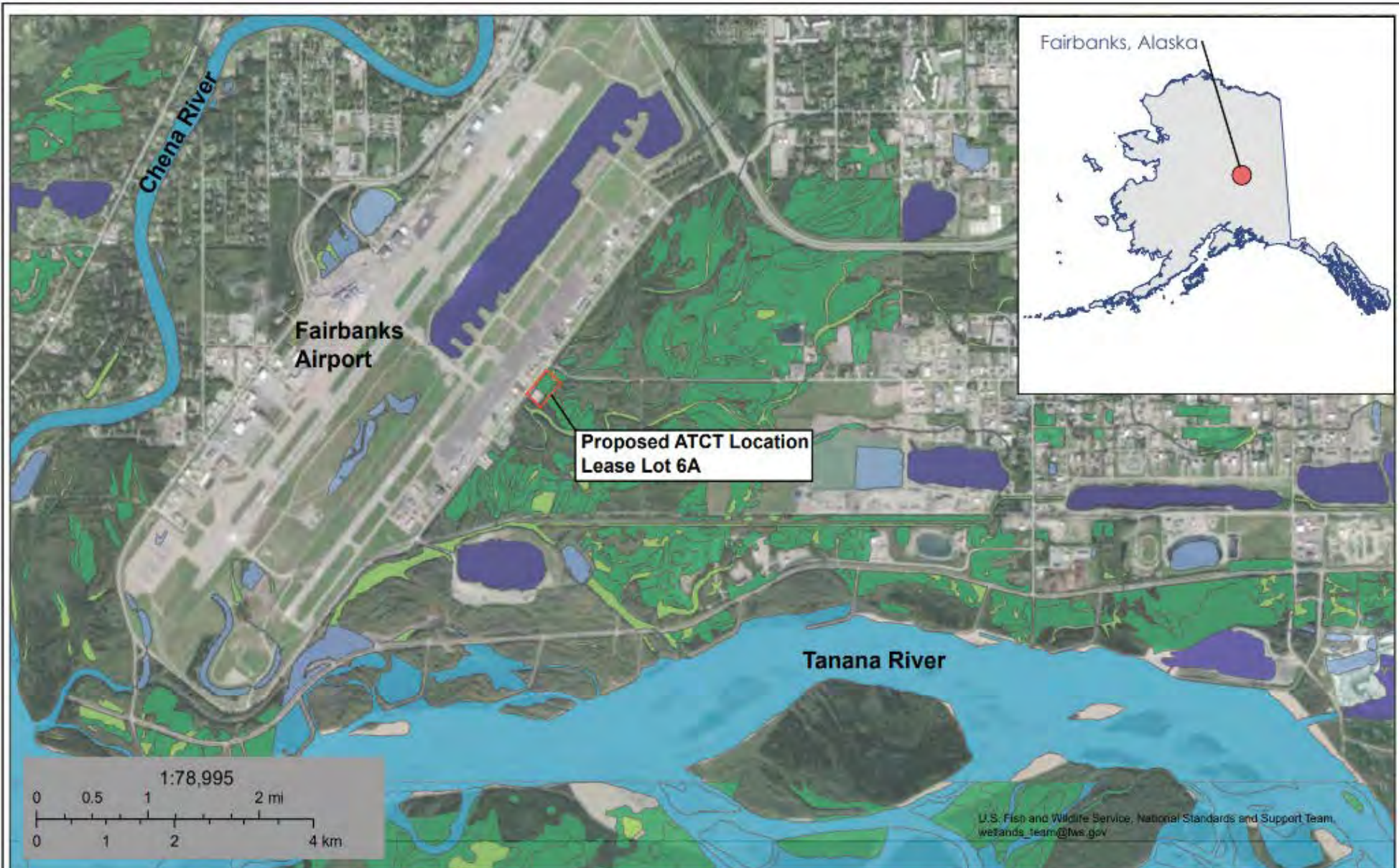
Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an jurisdictional determination cannot be evaluated nor can a jurisdictional determination be issued.



FAA
Air Traffic Organization

Federal Aviation Administration
Fairbanks International Airport (FAI)
ATCT / TRACON
Fairbanks, Alaska

Figure 1



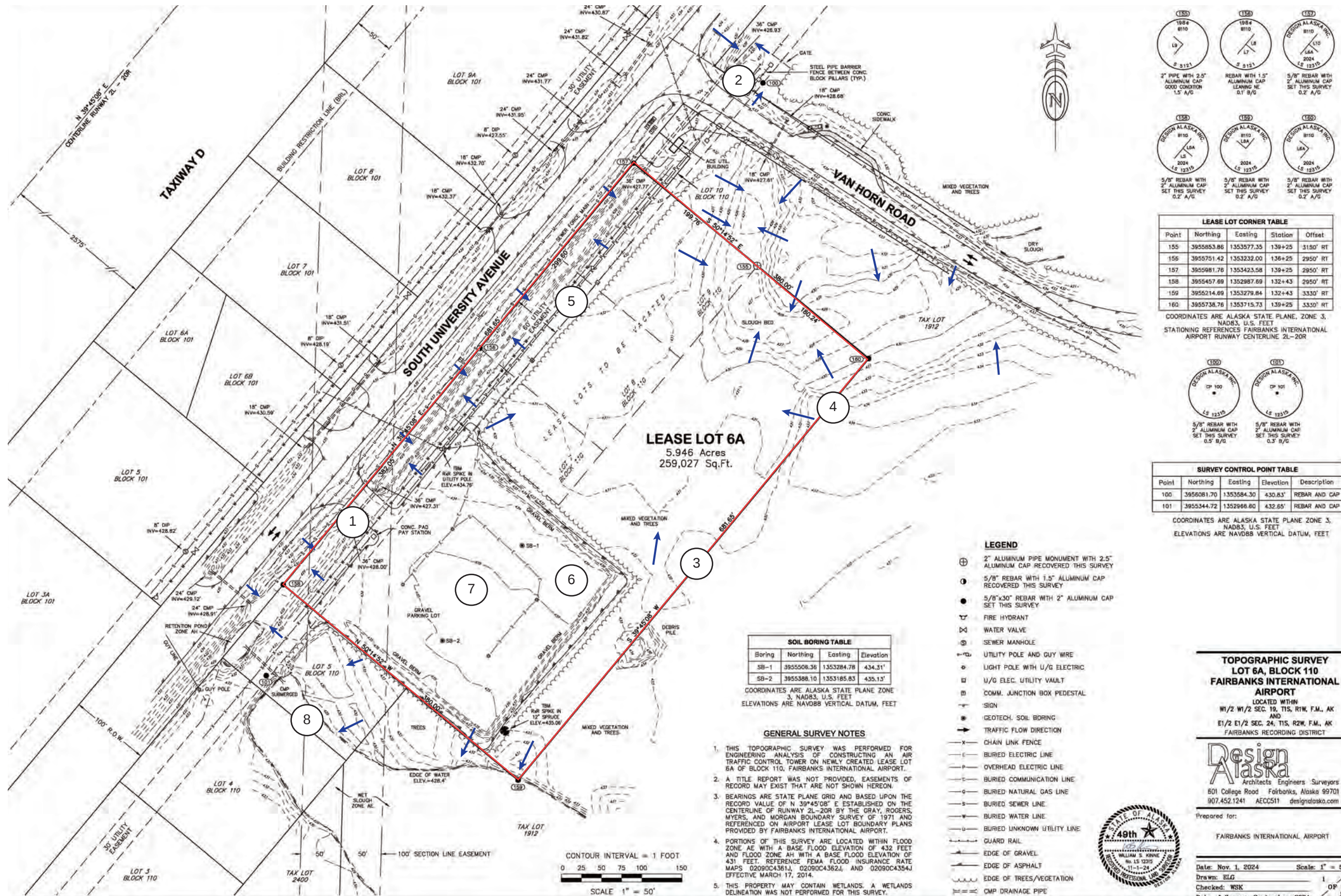
FAA
Air Traffic Organization

Federal Aviation Administration
Fairbanks International Airport (FAI)

108 / 360

Figure 2

in



Legend

FAI ATCT/TRACON
Proposed Site: Lease Lot 6A

Inferred Flowpath*

*Flowpaths are based on inferences made from review of the topographic land survey and from observations in the field.

Locations from Photo Log



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Photograph 1: Utility ROW and drainage ditch along University Avenue South, Lease Lot 6A (facing southwest).



Photograph 2: Drainage ditch south of University Avenue South, Lease Lot 6A (facing northwest).



Photograph 3: Mixed black spruce forest, the predominant vegetation within Lease Lot 6A (facing south).



Photograph 4: Mixed black spruce forest, the predominant vegetation within Lease Lot 6A (facing west).



Photograph 5: Utility ROW between drainage ditch along University Avenue South, Lease Lot 6A (facing northeast).



Photograph 6: Northern edge where undisturbed and previously cleared areas meet in southwest portion of new ATCT/TRACON site (facing west).



Photograph 7: Gravel pad, Lease Lot 6A (facing northwest).



Photograph 8: Unnamed slough directly adjacent to southern corner of new ATCT/TRACON site (facing southeast).

U.S. Fish and Wildlife Service

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From: [Ott, Kaithryn](#)
To: [Mandy Hope](#); [Ajmi, Amal R](#); [Hope, Pauline](#)
Subject: Re: [EXTERNAL] USFWS Contact Info for ESA Consultation
Date: Thursday, May 29, 2025 2:54:38 PM
Attachments: [image001.png](#)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon Mandy,

Thank you for reaching out. We do have a shared inbox for section 7 consultation and we encourage you to use this address for all official section 7 requests: Fairbanks_ES@fws.gov. That said, if the referenced project is located in Fairbanks, Alaska, I can confirm that no ESA-listed species occur in the vicinity of Fairbanks and section 7 consultation is not necessary. Thanks again for reaching out, please let us know if you have any additional questions.

Kaiti

--

Kaithryn Ott
Fish and Wildlife Biologist
U.S. Fish & Wildlife Service
Northern Alaska Field Office
101 12th Avenue, Room 110
Fairbanks, AK 99701
Office Phone (907) 344-5378

From: Mandy Hope <mandy.hope@bricesolutions.com>
Sent: Thursday, May 29, 2025 2:39 PM
To: Ott, Kaithryn <Kaithryn_Ott@fws.gov>; Ajmi, Amal R <amal_ajmi@fws.gov>; Hope, Pauline <Pauline_Hope@fws.gov>
Subject: [EXTERNAL] USFWS Contact Info for ESA Consultation

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Good afternoon,

My name is Mandy Hope, I'm a NEPA scientist with Brice Solutions. Brice has been contracted to prepare an environmental assessment (EA) on behalf of the Federal Aviation Administration (FAA) for a proposed project in Fairbanks, AK. As part of the EA process, we are preparing an

ESA Section 7 consultation letter for submittal to the USFWS. I was told that one (or all) of you might be able to provide the appropriate point of contact for the Northern Alaska F&W Field Office that the letter should be addressed to. Or is there a general email inbox where ESA correspondence should be submitted?

Thank you,



Mandy Hope

NEPA Scientist

mandy.hope@bricesolutions.com

907-342-7943 CELL

3700 Centerpoint Drive, Suite 8133

Anchorage, Alaska 99503



U.S. Department
of Transportation
**Federal Aviation
Administration**

Air Traffic Organization
Engineering Services
Western Service Area

FAA Alaska Region
222 West 7th Avenue #14
Anchorage, Alaska 99513-7587

April 8, 2025

Robert J. Henszey, Ph.D.
Branch Lead – Conservation Planning Assistance
U.S. Fish and Wildlife Service
Northern Alaska F&W Field Office
101 12th Ave. Rm 110
Fairbanks, AK 99701

Subject: Section 7 Consultation for Replacement of the Federal Aviation Administration Airport Traffic Control Tower/Terminal Radar Approach Control Facility at Fairbanks International Airport

Dear Dr. Henszey,

The Federal Aviation Administration (FAA) proposes to construct a new Airport Traffic Control Tower (ATCT) and Terminal Radar Approach Control Facility (TRACON) and demolish the existing ATCT/TRACON at Fairbanks International Airport (FAI) in Fairbanks, Alaska. We request your concurrence with our assessment and determination of the potential effects of the proposed project on bird species of concern with ranges that could extend into the project area.

Project Description and Action Area

An ATCT/TRACON is an airport observation facility that allows air traffic controllers to visually and electronically monitor aircraft take-offs, landings, and ground traffic within the airport to ensure proper separation of aircraft as they approach, depart, or pass through airspace controlled by the ATCT/TRACON and enhance the safety of aircraft operations at and in the vicinity of the airport.

The existing ATCT/TRACON site at FAI occupies approximately 1.5 acres of ADOT&PF-owned land centered at coordinates 64°48'38.88"N, 147°50'54.77"W. The ATCT, commissioned in 1977, consists of a tower, which is owned and operated by FAA, and a base building, which is owned and operated by the Alaska Department of Transportation and Public Facilities (ADOT&PF). FAA also leases a wing of the base building from ADOT&PF. The tower has a cab size of approximately 350 square feet with a cab eye level of 74 feet above ground level (AGL). The TRACON is housed within the ATCT shaft. The tower cab height of the existing ATCT is too low, resulting in line-of-sight obstructions and visibility issues. Additionally, the facility lacks sufficient space to meet Air Traffic Control mission requirements.

The new ATCT/TRACON site would occupy approximately 5 acres centered at coordinates 64°48'44.0017"N, 147°50'33.4357"W (Attachment 1). The site would include the ATCT/TRACON and a paved parking lot as well as room for a cleared and filled construction laydown area, if needed. The new

ATCT would have a cab size of approximately 550 square feet with a cab eye level of 214 feet AGL. No administrative or operational functions would be inside the new ATCT shaft. The new TRACON would be located in a base building attached to the ATCT.

In addition to the new structures, new underground utility lines would be constructed to connect the building with existing FAA facilities at several locations across FAI.

Construction of the new ATCT/TRACON is anticipated to begin in 2027 and conclude in 2032. The existing ATCT/TRACON would be demolished after the new ATCT/TRACON is completed and commissioned. The construction and operation of the proposed ATCT/TRACON would not change flight patterns or increase operations at the airport.

Federally Threatened and Endangered Species and Critical Habitat

A species list was requested from the U.S. Fish and Wildlife Service (USFWS) Northern Alaska Fish and Wildlife Field Office on 21 October 2024 (Attachment 2). There are no federally listed, proposed, or candidate species or critical habitat under USFWS jurisdiction in the project area.

Effects Determinations

1. Federally Threatened and Endangered Species

Due to the absence of federally listed, proposed, or candidate species in the project area, the FAA has determined that the proposed project warrants a determination of **No Effect**.

2. Birds

A species list retrieved from the USFWS Information for Planning and Consultation (IPaC) system (Attachment 2) indicates that the following species protected under the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act may be present in the project area: American golden-plover (*Pluvialis dominica*), bald eagle (*Haliaeetus leucocephalus*), golden eagle (*Aquila chrysaetos*), Hudsonian godwit (*Limosa haemastica*), lesser yellowlegs (*Tringa flavipes*), and olive-sided flycatcher (*Contopus cooperi*). Brice Solutions, LLC, conducted a field survey of the proposed project area on September 23, 2024, in which the project area was visually inspected for the presence of biological resources. Four bird species were observed: mallard (*Anas platyrhynchos*), black-capped chickadee (*Parus atricapillus*), common raven (*Corvus corax*), and gray jay (*Perisoreus canadensis*). Of these, only one species (mallard) was visually observed; the rest were identified by their calls.

The FAA has determined that the proposed project warrants a determination of **May Affect, Not Likely to Adversely Affect** for these species.

A determination of **May Affect** is warranted for the project based on the following rationale:

- The presence of potential habitat at the proposed new ATCT/TRACON site. It is estimated that up to 3.3 acres of forest would be disturbed.
- Disturbances from construction noise and human activities could startle and disturb these birds if present.

A determination of **Not Likely to Adversely Affect** is based on the following rationale:

- All construction would occur within the FAI perimeter.
- Construction would take place outside of the USFWS vegetation clearing recommendations (e.g., during the nesting season between March 1 and August 31) to the extent practicable.
- Noise from construction would be short term and temporary.

- Construction workers would follow the USFWS nationwide avoidance and minimization measures for birds, including:
 - When project activities cannot occur outside the bird nesting season, conduct surveys prior to scheduled activity to determine if active nests are present within the area of impact and buffer any nesting locations found during surveys.
 - Educate all employees, contractors, and/or site visitors of relevant rules and regulations that protect wildlife.
 - Prior to removal of an inactive nest, ensure that the nest is not protected under the ESA or the BGEPA. Nests protected under these acts cannot be removed without a valid permit.
 - Do not collect birds (live or dead) or their parts (e.g., feathers) or nests, or remove active nests without a valid authorization or permit.
 - Provide enclosed solid waste receptacles at all project areas. Non-hazardous solid waste (trash) should be collected and deposited in the on-site receptacles. Solid waste would be collected and disposed of by a local waste disposal contractor.
- The 2024 FAI Wildlife Hazard Management Plan (WHMP) defines habitat management objectives and wildlife control procedures which will help to reduce the potential for a damaging collision between wildlife and aircraft operating at FAI and includes copies of state and federal wildlife control permits. FAI operations would not be expected to have a significant adverse effect on bird species of concern due to the continued implementation of the mitigation measures identified in the WHMP, including:
 - Routine wildlife patrol by U.S. Department of Agriculture Animal and Plant Health Inspection Service-Wildlife Services-trained employees.
 - Random nest searches in May and June to discourage nesting and detect and remove on-site nests.
 - Habitat management, to include:
 - Elimination of temporary standing water.
 - Removal of trees and shrubs.
 - Grading/filling ruts and depressions caused by construction or snow removal equipment.
 - Mowing.
 - Pesticide application.
 - Removal and/or reduction of food sources.
 - Exclusionary devices such as perimeter fencing, wire grids, netting, and anti-perching devices.
 - Repulsion techniques such as mylar tape, pyrotechnics, and paintball guns.
 - Removal techniques such as capture and relocation, shooting, and nest/egg removal.
 - Ensuring complete closure of dumpsters at all times.
 - Discouraging wildlife feeding by the public.

- o Carcass removal.
- o Hazing to discourage bird presence in potentially dangerous areas in accordance with federal depredation permits and state concurrence letters.
- o Procedures for documenting wildlife observations and wildlife control activities.
- FAA would employ any additional best management practices recommended by the USFWS for this project to avoid impacts on bird species, as necessary.

We seek your concurrence with our determinations. Please provide your response to Jamie Groves, FAA Environmental Engineer, by e-mail at **jamie.l.groves@faa.gov**. Thank you for your assistance in this matter.

Sincerely,



Jamie L. Groves
Environmental Engineer
FAA ATO Engineering Services WSA
AJW-2W16E
jamie.l.groves@faa.gov

Attachments:

1. Map of Project Area
2. USFWS Species List (Project Code 2025-0008971)

Attachment 1: Map of Project Area

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Document Path: G:\PROJECTS\BRS\FAACBP_FAI_ATCT_EA_GIS1_MXD\SSHP\F04_1_ATCT_Siting_Als.mxd



1 INCH

ENVIRONMENTAL ASSESSMENT FOR PROPOSED
AIRPORT TRAFFIC CONTROL TOWER/TERMINAL
RADAR APPROACH CONTROL FACILITY
REPLACEMENT
FAIRBANKS INTERNATIONAL AIRPORT, ALASKA
REPLACEMENT ATCT/TRACON SITE
ALTERNATIVES CONSIDERED



Legend

- Existing ATCT/TRACON
- ATCT Siting Alternatives

Abbreviations

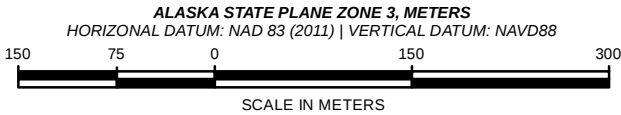
- ATCT Airport Traffic Control Tower
- TRACON Terminal Radar Approach Control Facility

Notes

- For conceptual purposes only. All locations are approximate.

References

- FAA. 2023. Airport Traffic Control Tower Siting Report. June 29.
- Basemap source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.



PROJECT No.: ACBP01	DATE: 10/31/2024	FIGURE: 4-1-1
P.M.: M.H.	DRAWN: R.R.	

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Attachment 2: USFWS Species List (Project Code 2025-0008971)

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United States Department of the Interior

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



In Reply Refer To:

10/21/2024 21:48:08 UTC

Project Code: 2025-0008971

Project Name: FAA FAI ATCT Replacement

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

To Whom It May Concern:

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

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

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

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

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

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

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

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

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

This species list is provided by:

Northern Alaska Fish & Wildlife Field Office

101 12th Avenue

Room 110

Fairbanks, AK 99701-6237

(907) 456-0203

PROJECT SUMMARY

Project Code: 2025-0008971

Project Name: FAA FAI ATCT Replacement

Project Type: Airport - New Construction

Project Description: The Federal Aviation Administration (FAA) proposes to construct a new Airport Traffic Control Tower (ATCT)/Terminal Radar Approach Control Facility (TRACON) and demolish the existing ATCT/TRACON at Fairbanks International Airport (FAI). The new ATCT/TRACON site would occupy approximately 5 acres centered at coordinates 64°48'44.0017"N, 147°50'33.4357"W and would include the ATCT/TRACON and a paved parking lot as well as room for a cleared and filled construction laydown area if needed. The new ATCT would have a cab size of approximately 550 SF with a cab eye level of 214 feet AGL. No administrative or operational functions would be housed within the new ATCT shaft. The new TRACON would be located in a base building attached to the ATCT. Construction of the new ATCT/TRACON would begin in 2026 and conclude in 2029. The existing ATCT/TRACON would be demolished after the new ATCT/TRACON is completed and commissioned. As part of the Proposed Action, new underground utility lines would be installed to connect the new ATCT/TRACON to water, sewer, gas, electrical, and telephone services along S. University Ave and to the FAA-owned Fiber Optic Transmission System (FOTS) at several locations across FAI. The FOTS consists of fiber optic cables, communications, monitoring, and auxiliary equipment that support critical services and facilities at the airport.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@64.81831305,-147.85003810481444,14z>



Counties: Fairbanks North Star County, Alaska

ENDANGERED SPECIES ACT SPECIES

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

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

CRITICAL HABITATS

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

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

Please refer to [Alaskas Bird Nesting Season](#) for recommendations to minimize impacts to migratory birds, including eagles.

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Mar 1 to Aug 31
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Mar 1 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

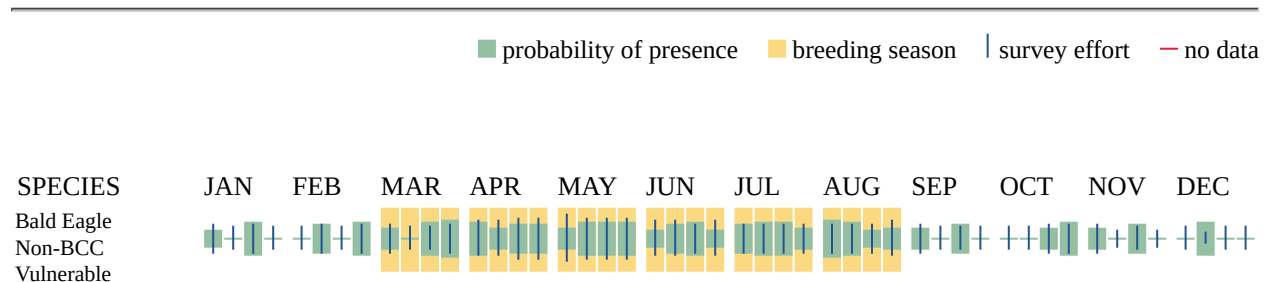
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

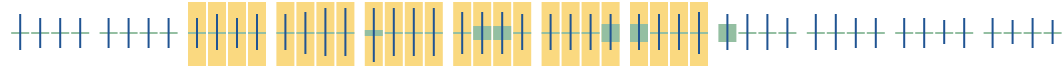
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.



Golden Eagle
Non-BCC
Vulnerable



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

There are migratory birds in your project area. Please refer to [Alaska's Bird Nesting Season](#) for recommendations to minimize impacts to migratory birds, including eagles.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds May 20 to Aug 15

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Mar 1 to Aug 31
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Mar 1 to Aug 31
Hudsonian Godwit <i>Limosa haemastica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9482	Breeds May 15 to Jul 31
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds May 1 to Aug 15
Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- R5UBH
- R2UBG
- R2UBH
- R2UBHx

FRESHWATER EMERGENT WETLAND

- PEM1F
- PEM1C
- PEM1B

FRESHWATER FORESTED/SHRUB WETLAND

- PSS1/3B
- PSS4/1B
- PFO4/SS1B
- PSS/EM1B
- PSS1B

FRESHWATER POND

- PUBHx
- PUBH

LAKE

- L1UBHx

IPAC USER CONTACT INFORMATION

Agency: Brice Solutions LLC

Name: Mandy Hope

Address: 3700 Centerpoint Dr Suite 8133

City: Anchorage

State: AK

Zip: 99503

Email: mandy.hope@bricesolutions.com

Phone: 9073427943

APPENDIX B

SCOPING

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Persons and agencies contacted in the preparation of this EA are listed in Table B-1. Responses received are listed in Table B-2.

Table B-1 Persons, Agencies, Tribes, and Organizations Contacted

FEDERAL AGENCIES	
Kevin Hubbard Acting Regional Administrator – Alaska Region Federal Aviation Administration 222 W. 7th Ave. #14 Anchorage, AK 99513	Kaiti Ott Fish and Wildlife Biologist U.S. Fish and Wildlife Service Northern Alaska F&W Field Office kaithryn_ott@fws.gov
U.S. Environmental Protection Agency Region 10 Alaska Operations Office 222 W. 7th Ave. #19 Anchorage, AK 99513	U.S. Army Corps of Engineers – Alaska District Regulatory Division PO Box 6898 JBER, AK 99506-0898
Alaska Area Native Health Service 4141 Ambassador Dr. Ste 300 Anchorage, AK 99508-5928	Sarah Creachbaum Regional Director – Region 11 National Park Service 240 W. 5th Ave. Ste 114 Anchorage, AK 99501
U.S. Army Garrison Alaska Public Affairs Office 1016 Gaffney Rd. Ste 5900 Fort Wainwright, AK 99703-5900	354th Fighter Wing Public Affairs* 354 Broadway St. Ste 15A Eielson Air Force Base, AK 99702-2299
354 CES/CEIE 2310 Central Ave. Ste 100 Eielson Air Force Base, AK 99702	
STATE AGENCIES	
Judith Bittner State Historic Preservation Officer Alaska Department of Natural Resources Office of History and Archaeology 550 W. 7th Ave. Ste 1310 Anchorage, AK 99501 oha.revcomp@alaska.gov	Stephanie Buss Contaminated Sites Program Manager Alaska Department of Environmental Conservation PO Box 111800 Juneau, AK 99811-1800
Alaska Department of Fish and Game Fairbanks Office 1300 College Rd. Fairbanks, AK 99701-1551	Joe Kemp Director – Northern Region Alaska Department of Transportation and Public Facilities 2301 Peger Rd. Fairbanks, AK 99709
Alaska Department of Environmental Conservation* Division of Air Quality 555 Cordova St. Anchorage, AK 99501	
LOCAL AGENCIES/ORGANIZATIONS	
Bryce J. Ward Mayor Fairbanks North Star Borough PO Box 71267 Fairbanks, AK 99707	Steven Hoke Air Quality Manager Fairbanks North Star Borough 3175 Peger Rd. Fairbanks, AK 99709
Adam Pruett Flood Plain Administrator Fairbanks North Star Borough PO Box 71267 Fairbanks, AK 99707	David Pruhs Mayor City of Fairbanks 800 Cushman St. Fairbanks, AK 99701

Table B-1 Persons, Agencies, Tribes, and Organizations Contacted

Chandra Clack* Mayor City of North Pole 125 Snowman Ln. North Pole, AK 99705	Jomo Stewart* President/CEO Fairbanks Economic Development Corporation 330 Wendell Ave. Ste E Fairbanks, AK 99701
Greater Fairbanks Chamber of Commerce* 100 Cushman St. Ste 102 Fairbanks, AK 99701	
FEDERALLY RECOGNIZED TRIBES	
Caroline Ketzler President Nenana Native Association PO Box 369 Nenana, AK 99760 ta.nenana.ak@gmail.com	Elias Saylor President Healy Lake Village 600 University Ave. Ste 100 Fairbanks, AK 99709 elias.saylor@healylake.org marie.haley@healylake.org
Tracy Charles-Smith President Native Village of Dot Lake PO Box 70494 Fairbanks, AK 99701 chance.shank@dotlakevillage.org	Herbert Demit President Native Village of Tanacross PO Box 76009 Tanacross, AK 99776-6009 jerry_isaac@hotmail.com
Michael Sam President Native Village of Tetlin PO Box 797 Tok, AK 99780 tetlinvillagecouncil@gmail.com	William Albert President Northway Village PO Box 516 Northway, AK 99764-0516 nicholr@aptalaska.net
ALASKA NATIVE ORGANIZATIONS/HISTORIC PRESERVATION GROUPS	
Brian Ridley Chief/Chairman Tanana Chiefs Conference Chief Peter John Tribal Building 122 1st Ave. Fairbanks, AK 99701 brian.ridley@tananachiefs.org	Dr. Jessica Black President Fairbanks Native Association 3830 Cushman St. Ste 100 Fairbanks, AK 99701 sdublin@fairbanksnative.org
Aaron M. Schutt President/CEO Doyon, Limited 11500 Sukdu Wy Anchorage, AK 99515 admin@doyon.com	Sarah Lukin President Cook Inlet Region, Inc. 725 E Fireweed Ln. Ste 800 Anchorage, AK 99503 info@ciri.com
Jack Wholecheese First Chief Denakkanaaga, Inc. 101 Dunkel St. Ste 135 Fairbanks, AK 99701 info@denakkanaaga.org	Matthew Reckard Chair Historic Preservation Commission Fairbanks North Star Borough PO Box 71267 Fairbanks, AK 99707 matthew.reckard@bc.fnsb.gov
Tanana-Yukon Historical Society PO Box 71336 Fairbanks, AK 99707-1336 tyhs@alaska.net	

Table B-1 Persons, Agencies, Tribes, and Organizations Contacted

OTHER STAKEHOLDERS	
Fairbanks International Airport 6450 Airport Way Fairbanks, AK 99709	Metropolitan Area Commuter System* 501 Cushman St. Fairbanks, AK 99701
Wright Air Service* PO Box 60142 Fairbanks, AK 99706	Kirst Aviation* 4650 Armistead Way Fairbanks, AK 99709
Everts Air Alaska 5525 Airport Industrial Rd. Fairbanks, AK 99709	ProFlite of Alaska, LLC 3900 University Ave. S. Fairbanks, AK 99709
Northern Alaska Tour Company PO Box 82991-W Fairbanks, AK 99708	Airframe Innovations 3706 University Ave. S. Fairbanks, AK 99709
Northland Aviation Services 3708 University Ave. S. Fairbanks, AK 99709	Stoots Aviation 3686 University Ave. S. Fairbanks, AK 99709
Aircom Avionics Sales and Service* 3628 University Ave. S. Fairbanks, AK 99709	Arctic Aviation 3580 University Ave. S. Fairbanks, AK 99709
Delcourt Aviation* 3558 University Ave. S. Fairbanks, AK 99709	University of Alaska Fairbanks PO Box 757500 Fairbanks, AK 99775
Fairbanks 9th Composite Squadron Civil Air Patrol 3774 University Ave. S. Fairbanks, AK 99709	

Notes:

* – letter was not delivered to recipient

Table B-2 Scoping and Consultation Letter Responses

COMMENT	DATE	AGENCY/ ORGANIZATION	PRECEDED BY	RESPONSE RECEIVED
1	9/29/2023	USACE	Early Scoping Email	An individual Section 404 permit may be required for discharge of fill into WOTUS, including wetlands. If an individual permit is required, an individual Section 401 Water Quality Certification from the ADEC would also be required. Compensatory mitigation may be required for unavoidable impacts to WOTUS. Prior to submitting a permit application, use available information to identify avoidance and minimization measures to the maximum extent practicable.
2	11/7/2024	FNSB	Early Scoping Email	Because Proposed Site 1 is within a SFHA, a split flood zone permit will be required. The permit application should include site plans indicating the location of the SFHA and where development will occur in relation to the SFHA.

Table B-2 Scoping and Consultation Letter Responses

COMMENT	DATE	AGENCY/ ORGANIZATION	PRECEDED BY	RESPONSE RECEIVED
3	1/3/2025	SHPO	NHPA Section 106 Request for Concurrence	The Fairbanks ATCT (FAI-02835) and the RTR building (FAI-02370) are not eligible for the NRHP. Therefore, SHPO concurs with the finding of No Historic Properties Affected. This may need to be re-evaluated if the project's scope or design change or if comments are received from other consulting parties. Should unidentified cultural resources be discovered in the course of the project, work must be interrupted until the resources have been evaluated. Note that some sites can be deeply buried and that fossils are considered cultural resources subject to the Alaska Historic Preservation Act.
4	4/10/2025	USACE	CWA Section 404 Request for Jurisdictional Determination	The review area contains wetlands and waters that are not WOTUS under USACE regulatory jurisdiction for the following reasons: they are non-navigable; lack a continuous surface connection with a requisite jurisdictional water; and have no connection to interstate or foreign commerce. A Department of the Army permit is not required for any activities that may occur within the review area.
5	5/30/2025	ADEC	Scoping Letter	A CMMP would be required for potentially contaminated soil. It is recommended that the plan be prepared at the permitting stage of project development. Note that dewatering should be addressed separately with the ADEC Division of Water at that time.

Notes:

For definitions, refer to the Acronyms and Abbreviations list (Appendix J).

FAA Early Scoping

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FAA engaged in early scoping with the U.S. Army Corps of Engineers and the Fairbanks North Star Borough regarding the proposed project. Correspondence is presented below.

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From: Manbeck, Rebecca S CIV USARMY CEPOA (USA) <Rebecca.S.Manbeck2@usace.army.mil>

Sent: Friday, September 29, 2023 2:28 PM

To: Groves, Jamie L (FAA) <Jamie.L.Groves@faa.gov>

Cc: Lyons, Ellen H CIV USARMY CEPOA (USA) <Ellen.H.Lyons@usace.army.mil>; Mazer, Gregory J CIV USARMY CEPOA (USA) <Gregory.J.Mazer@usace.army.mil>; Williams, Allison T (FAA) <Allison.T.Williams@faa.gov>; Louie, John (FAA) <john.louie@faa.gov>

Subject: FAA Fairbanks Airport ATCT Replacement Project - Request for Comment

Good afternoon,

Thank you for the opportunity to provide comments on the Fairbanks International Airport (FAI) Air Traffic Control Tower (ATCT) replacement project. This proposed action has been assigned Corps' File No. POA-2022-00160, Tanana River. Please refer to this in all correspondence with us.

Based on the information provided, the U.S. Army Corps of Engineers, Regulatory Division (the Corps) has the following comments:

- A permit would be required for the discharge of fill into waters of the U.S. (WOTUS), including wetlands. Given the extent of potential impacts to WOTUS for your project, an individual permit may be required.
- If an individual permit is required from the Corps, an individual 401 Water Quality Certification from the Alaska Department of Environmental Conservation (ADEC) would also be required.
- Compensatory mitigation may be required for unavoidable impacts to waters of the U.S.
- Prior to the submittal of an application, please utilize available information to identify ways to avoid and minimize impacts to wetlands and waters to the maximum extent practicable, while still meeting the project needs. The Corps encourages contacting us early to review any delineations and ensure all potential impacts areas have been adequately evaluated.

Please let me know if you have any questions. Thank you.

Respectfully,

Rebecca (Becky) Manbeck
Regulatory Specialist
North Central Section
U.S. Army Corps Engineers – Alaska District
Rebecca.S.Manbeck2@usace.army.mil
Phone: (907)-251-6716



**US Army Corps
of Engineers®**

From: Adam Pruett <adam.pruett@fnsb.gov>

Sent: Tuesday, November 7, 2023 10:35 AM

To: Groves, Jamie L (FAA) <Jamie.L.Groves@faa.gov>

Subject: RE: FAA Fairbanks Airport ATCT Replacement Project - Request for Comment

Hello Jamie,

I attached the zip file which contains the most relevant FIRM panel for reference. I also attached a more user friendly version of the same information as a pdf.

Since the parcel where the project is located contains a special flood hazard area (SFHA), a split flood zone permit will be required. If you intend to develop fully outside of the SFHA the below application is the correct one. This is the simplest of the floodplain permitting processes, and the key to ensuring it stays simple is indicating via site plans where the SFHA is and clearly showing that all development is outside of it. Based on what you have shown so far this seems like it should not be an issue.

<https://www.fnsb.gov/DocumentCenter/View/6808/Floodplain-Application-Split-Flood-Zone-Permit-Development-in-Flood-Zone-X->

Please let me know if you have any questions, concerns or just want more clarity.

Best Regards,

Adam Pruett

Floodplain Administrator

Department of Community Planning

adam.pruett@fnsb.gov | 907.459.1256



From: Kellen Spillman <kellen.spillman@fnsb.gov>
Sent: Monday, October 30, 2023 9:27 AM
To: Groves, Jamie L (FAA) <Jamie.L.Groves@faa.gov>
Cc: Adam Pruett <adam.pruett@fnsb.gov>; Melissa Kellner <melissa.kellner@fnsb.gov>
Subject: RE: FAA Fairbanks Airport ATCT Replacement Project - Request for Comment

Jamie,

Adam Pruett is the FNSB's Floodplain Administrator. Could you please update your contacts.

Did you already receive the information that you need?

Thanks,

Kellen D. Spillman
FNSB Community Planning



From: Groves, Jamie L (FAA) <Jamie.L.Groves@faa.gov>
Sent: Tuesday, October 10, 2023 10:40 AM
To: Kellen Spillman <kellen.spillman@fnsb.gov>
Subject: FW: FAA Fairbanks Airport ATCT Replacement Project - Request for Comment

Good Afternoon,

I was referred to you as a contact for the Fairbanks NSB Floodplain from the local FEMA office. I wanted to forward you this correspondence and request for comment that I sent out to your office last month. Please let me know if you have any questions.

Cheers,

Jamie L. Groves
Environmental Engineer
AJW-2W16E, ATO, ES, WSA
Cell: (907) 841-9235 (primary)
Desk: (907) 271-5954

From: Groves, Jamie L (FAA)

Sent: Wednesday, September 20, 2023 5:32 PM

To: planning@fnsb.gov

Cc: Louie, John (FAA) <john.louie@faa.gov>; Williams, Allison T (FAA) <Allison.T.Williams@faa.gov>

Subject: FAA Fairbanks Airport ATCT Replacement Project - Request for Comment

Good afternoon,

Please see the attached correspondence regarding the proposed Fairbanks International Airport (FAI) Air Traffic Control Tower (ATCT) replacement project. Please reply to me via e-mail with any comments or questions that you have regarding this project.

Respectfully,

Jamie L. Groves

Environmental Engineer

AJW-2W16E, ATO, ES, WSA

Cell: (907) 841-9235 (primary)

Desk: (907) 271-5954

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Scoping Letter

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A copy of the following letter was distributed to the stakeholders listed in Table B-1.

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U.S. Department
of Transportation
**Federal Aviation
Administration**

Air Traffic Organization
Engineering Services
Western Service Area

FAA Alaska Region
222 West 7th Avenue #14
Anchorage, Alaska 99513-7587

8 April 2025

Kevin Hubbard
Acting Regional Administrator - Alaska Region
Federal Aviation Administration
222 W. 7th Ave. #14, Anchorage, AK 99513

Subject: Public Scoping for Replacement of the Federal Aviation Administration Airport Traffic Control Tower/Terminal Radar Approach Control Facility at Fairbanks International Airport

Greetings,

The Federal Aviation Administration (FAA) proposes to construct a new Airport Traffic Control Tower (ATCT) and Terminal Radar Approach Control Facility (TRACON) and demolish the existing ATCT/TRACON at Fairbanks International Airport (FAI) in Fairbanks, Alaska. In addition to the new structures, new underground utility lines would be installed to connect the new ATCT/TRACON to water, sewer, gas, electrical, and telephone services along University Avenue South and to the FAA-owned Fiber Optic Transmission System and other communication cables at several locations across FAI.

As required by the National Environmental Policy Act (NEPA) of 1969, as amended, FAA is developing an Environmental Assessment (EA) evaluating the potential environmental impacts of the Proposed Action. In accordance with the U.S. Council on Environmental Quality (CEQ) NEPA implementing regulations at 40 Code of Federal Regulations [CFR] Part 1501.9; Section 2(a)(4) of Executive Order (EO) 11988, "Floodplain Management"; and Section 2 (b) of EO 11990, "Protection of Wetlands," FAA is providing the opportunity for early public review of the Proposed Action and invites the participation of likely affected federal, state, Tribal, and local agencies and governments and other likely affected or interested persons to determine the scope of issues for analysis.

Proposed Action

An ATCT/TRACON is an airport observation facility that allows air traffic controllers to visually and electronically monitor aircraft take-offs, landings, and ground traffic within the airport to ensure proper separation of aircraft as they approach, depart, or pass through airspace controlled by the ATCT/TRACON and enhance the safety of aircraft operations at and in the vicinity of the airport.

The Proposed Action would relocate and replace the existing ATCT/TRACON with a taller, 12-sided tower that provides an unobstructed 360-degree view of all controlled airport surface areas and maximum visibility of all airborne traffic. The new ATCT/TRACON would conform with national design standards and would be built to resist seismic events. The construction and operation of the proposed ATCT/TRACON would not change flight patterns or increase operations at the airport. Construction of the new

ATCT/TRACON is anticipated to begin in 2027 and conclude in 2032. The existing ATCT/TRACON would be demolished after the new ATCT/TRACON is completed and commissioned.

Purpose and Need

The tower cab height of the existing ATCT at FAI is too low, resulting in line-of-sight obstructions and visibility issues. Additionally, the facility lacks sufficient space to meet Air Traffic Control mission requirements. Therefore, the purpose of the Proposed Action is to replace the outdated ATCT/TRACON with an adequately sized, code compliant replacement facility that meets the space, height, cab orientation, operational (i.e., staffing and equipment), and safety requirements specified in FAA orders and regulations, and the need for the Proposed Action is to address the existing ATCT/TRACON's structural and functional deficiencies and ensure safe movement of aircraft by providing a cleared line-of-sight between the ATCT and all active movement areas.

Action Area

The existing ATCT/TRACON site at FAI occupies approximately 1.5 acres of ADOT&PF-owned land centered at coordinates 64°48'38.88"N, 147°50'54.77"W. The ATCT, commissioned in 1977, consists of a tower, which is owned and operated by FAA, and a base building, which is owned and operated by ADOT&PF. FAA also leases a wing of the base building from ADOT&PF. The tower has a cab size of approximately 350 square feet with a cab eye level of 74 feet above ground level (AGL). The TRACON is housed within the ATCT shaft.

The new ATCT/TRACON site would occupy approximately 5 acres centered at coordinates 64°48'44.0017"N, 147°50'33.4357"W. The site would include the ATCT/TRACON and a paved parking lot as well as room for a cleared and filled construction laydown area if needed. The new ATCT would have a cab size of approximately 550 square feet composed of mullions and slat-wall consoles with a cab eye level of 214 feet AGL. No administrative or operational functions would be housed within the new ATCT shaft. The new TRACON would be located in a base building attached to the ATCT.

Alternatives Considered

In 2023, FAA conducted a siting study to evaluate eight proposed locations at FAI for construction of a new ATCT/TRACON. Sites 2, 3, 4, and 7 were removed from further consideration because they did not meet FAA Order 6480.8B (*Airport Traffic Control Tower Siting Process*) siting criteria. Sites 1, 5, 6, and 8 met the siting criteria and were considered viable options; however, Sites 5, 6, and 8 were ultimately eliminated from further study, and Site 1 was selected as the Preferred Alternative. Attachment 1 presents the location of the existing ATCT/TRACON and the replacement site alternatives considered.

1. **Site 1 (Preferred Alternative)** – Site 1 is located approximately 1,000 feet east northeast of and on the same side of the airfield as the existing ATCT/TRACON. Site 1 was determined to be the preferred alternative and will be carried forward as the Proposed Action to be evaluated in the EA.
2. **Site 5** – Site 5 is located approximately 780 feet southwest of and on the same side of the airfield as the existing ATCT/TRACON in a parking lot area northeast of Wright Air Service. Site 5 was removed from consideration because the current lessee has plans for the site and has the first right of refusal under the lease.
3. **Site 6** – Site 6 is located approximately 4,200 feet northwest of the existing ATCT/TRACON on the opposite side of the airfield in a ramp area approximately 500 feet southwest of the main passenger terminal. Site 6 was removed from consideration as the site was determined to be non-viable due to a light prism issue associated with its use as a snow storage area.

4. **Site 8** – Site 8 is located approximately 220 feet southwest and on the same side of the airfield as the existing ATCT/TRACON in a parking lot area northeast of Air Arctic. Site 8 was removed from consideration as the current lessee has plans for the site and has the first right of refusal under the lease.
5. **No Action Alternative** – Under the No Action Alternative, a new ATCT/TRACON would not be constructed, and the existing ATCT/TRACON would continue to monitor aircraft and ground traffic at FAI from its current location.

Only the Preferred Alternative (construction of a new replacement ATCT/TRACON at Preferred Site 1) and the No Action Alternative are further evaluated in the EA.

Preliminary review of the affected environment and available materials indicate that the following categories may require detailed analysis: Air Quality, Biological Resources, Climate, Hazardous Materials/Solid Waste/Pollution Prevention, Historical/Architectural/Archaeological/Cultural Resources, Land Use, Natural Resources and Energy Supply, Noise and Noise-Compatible Land Use, Socioeconomics/Environmental Justice/Children's Environmental Health and Safety Risks, Visual Effects, and Water Resources.

I invite you to participate in the public outreach process by responding to this letter with any information, concerns, potential impacts, relevant effects of past actions and possible alternative actions regarding this Proposed Action. Any information you provide will be taken into consideration by the FAA as it develops its Environmental Assessment. The Draft Environmental Assessment is anticipated to be available for public review and comment in April 2025. If you have any questions or concerns, please contact Jamie Groves, FAA Environmental Engineer, by e-mail at jamie.l.groves@faa.gov. Thank you in advance for your assistance in this effort.

Sincerely,



Jamie L. Groves
Environmental Engineer
FAA ATO Engineering Services WSA
AJW-2W16E
jamie.l.groves@faa.gov

Attachments:

1. Figure 1 Replacement ATCT/TRACON Site Alternatives Considered

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Attachment 1. Figure 1 Replacement ATCT/TRACON Site Alternatives Considered

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Document Path: G:\PROJECTS\BRS\FAACBP_FAI_ATCT_EA_GIS1_MXD\SSHP\F04_1_ATCT_Siting_Als.mxd



ENVIRONMENTAL ASSESSMENT FOR PROPOSED
AIRPORT TRAFFIC CONTROL TOWER/TERMINAL
RADAR APPROACH CONTROL FACILITY
REPLACEMENT
FAIRBANKS INTERNATIONAL AIRPORT, ALASKA
REPLACEMENT ATCT/TRACON SITE
ALTERNATIVES CONSIDERED



Legend

- Existing ATCT/TRACON
- ATCT Siting Alternatives

Abbreviations

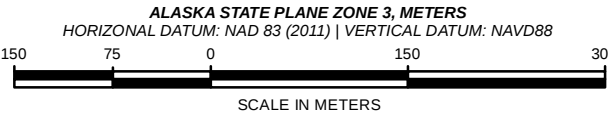
- ATCT Airport Traffic Control Tower
- TRACON Terminal Radar Approach Control Facility

Notes

- For conceptual purposes only. All locations are approximate.

References

- FAA. 2023. Airport Traffic Control Tower Siting Report. June 29.
- Basemap source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.



PROJECT No.: ACBP01	DATE: 10/31/2024	FIGURE: 1
P.M.: M.H.	DRAWN: R.R.	

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Scoping Letter Response

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From: Burgess, Robert A (DEC) <robert.burgess@alaska.gov>
Sent: Friday, May 30, 2025 10:26 AM
To: Groves, Jamie L (FAA) <Jamie.L.Groves@faa.gov>
Subject: RE: Inquiry regarding Need for a CMMP for the Proposed Replacement FAA ATCT at FAI

CAUTION: This email originated from outside of the Federal Aviation Administration (FAA). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Good morning,

Thanks for reaching out. I did review the initial letter, forwarded from Stephanie Buss, in April, and I elected not to comment because I had no immediate concerns based on the location alone. The additional information about trenching locations is appreciated. I do have concerns about the potential to encounter petroleum contaminated soil in the trench running towards the runways (northwest) from the existing ATCT location as well as potential PFAS contamination in the trench that goes to the southwest and in particular, the last leg of it that turns northwest. These areas have not been characterized for PFAS. In addition, the plume from the City of Fairbanks Regional Fire Training Center, which is visible in the top right corner of the provided figure, may extend beyond the boundaries currently mapped, so PFAS could be a concern in this area as well depending on the depth of trenches.

Dewatering at the selected new ATCT site may also be a concern, depending on how much water is being extracted and other concerns.

To get to your questions, I do not necessarily see a need to include a CMMP as part of the EA process. A CMMP should be produced but I think it can wait until later in the design process as part of the permitting that will be required at that point. I would suggest that any dewatering concerns can be addressed in the permitting process with our Division of Water, while soil concerns should be addressed in a CMMP for review by my program. DEC has reports in our files for each of the contaminated sites that may be encountered, which should be used as resources during CMMP development. Most of these reports should be attached to our public database entries for each site; if not they can be requested from either DEC or the airport.

I hope this helps, but please feel free to reach out via email or phone if you have any additional questions or concerns.

Thank you,
Robert

Robert A. Burgess (he/him)

Environmental Program Specialist IV

Alaska Department of Environmental Conservation

Contaminated Sites Program

(907)451-2153

Robert.burgess@alaska.gov

From: Groves, Jamie L (FAA) <Jamie.L.Groves@faa.gov>

Sent: Thursday, May 29, 2025 2:04 PM

To: Burgess, Robert A (DEC) <robert.burgess@alaska.gov>

Subject: Inquiry regarding Need for a CMMP for the Proposed Replacement FAA ATCT at FAI

You don't often get email from jamie.l.groves@faa.gov. [Learn why this is important](#)

CAUTION: This email originated from outside the State of Alaska mail system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Afternoon,

I am reaching out to request your guidance regarding the proposed replacement project of the FAA Airport Traffic Control Tower (ATCT) at the Fairbanks International Airport (FAI) that is currently undergoing environmental review under the FAA's NEPA process. The FAA submitted a scoping letter to the ADEC CS Program Manager Stephanie Buss in early April, though I do not believe we have received any comment on our project from your office.

The ATCT replacement project includes replacement of the tower structure in an area not known to be contaminated, however the project also involves trenching for utility upgrades, installation of conduit, etc., and portions of this work will be in areas near or within the known PFAS-impacted plume at FAI. The trenching in the area that overlaps with the PFAS plume will extend up to 3 feet below the ground surface, and we anticipate that there will be no excess soil and that any from the trench could be returned back to the excavation without the need to remove it from the project site. Ground disturbance at the site of the replacement ATCT will include deeper excavations and dewatering. The PFAS plume has not been identified to extend to the area of the proposed ATCT, however PFAS has been detected in surface water samples at the adjacent slough, though that was below ADEC action levels. Please reference the attached figure showing the location of the proposed action and where it overlaps with the PFAS plume (the light blue line indicates where trenching for underground utilities will be installed/upgraded). I have also included the original scoping letter that was mailed earlier this spring.

The FAA is currently preparing the Draft Environmental Assessment (EA) for the project, and I would like to determine whether development of a Contaminated Materials Management Plan (CMMP) would be appropriate at this stage for ADEC review and comment, or if such a plan would be more appropriately deferred to final design and permitting. The EA will describe the known site conditions, including proximity to the PFAS plume and planned ground disturbance.

Specifically, I am requesting your input on:

- Whether a CMMP is recommended or required at this level of review,
- If so, whether ADEC would anticipate the need to review and approve the CMMP prior to completion of the EA,
- And any guidance or resources ADEC recommends we consult during CMMP preparation, if applicable.

I am happy to provide additional details about the project scope, location, and anticipated depth of ground disturbance if helpful.

Thank you for your time and assistance. I look forward to your recommendations.

Respectfully,

Jamie L. Groves *Environmental Engineer*
ATO Tech Ops, WSA Engineering Services AJW-2W16E
FEDERAL AVIATION ADMINISTRATION
222 W 7th Ave # 14 Anchorage, AK 99513
C 907.841.9235 | E jamie.l.groves@faa.gov



FAA
Air Traffic Organization

APPENDIX C
PUBLIC REVIEW/COMMENT PERIOD

(To be included in Final)

APPENDIX D
BIOLOGICAL RESOURCES SURVEY TECHNICAL MEMORANDUM

Biological Resources Survey

Date:	21 February 2025
Contract:	697DCK-24-P-00082
Project:	Proposed Airport Traffic Control Tower/Terminal Radar Approach Control Facility Replacement
To:	Jamie Groves, Federal Aviation Administration
From:	Mandy Hope, Brice Solutions, LLC
Attachments:	Figures Attachment 1 Photograph Log Attachment 2 Probability of Presence Summary for Bird Species Occurring at Fairbanks international Airport

EXECUTIVE SUMMARY

This 2025 Biological Resources Survey Technical Memorandum presents the findings of the biological resources survey and the assessment of potential effects to sensitive biological resources within the region of influence (ROI) for the Federal Aviation Administration (FAA)'s proposed Airport Traffic Control Tower (ATCT)/Terminal Radar Approach Control Facility (TRACON) relocation project in Fairbanks, Alaska. This determination is based on the criteria in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* (FAA 2015) and the National Environmental Policy Act (NEPA; 40 Code of Federal Regulations [CFR] Parts 1500-1508). The field survey indicates the potential for sensitive biological resources to be present in the ROI.

1.0 INTRODUCTION

1.1 Background and Purpose

Fairbanks International Airport (FAI) is a public use airport occupying approximately 3,550 acres in Fairbanks, Alaska. FAI is owned by the State of Alaska and administered by the Alaska Department of Transportation and Public Facilities (ADOT&PF). It is the state's second-busiest airport after Ted Stevens Anchorage International Airport (ANC) in Anchorage, Alaska, and the regional link to interior Alaska communities. FAI facilitates regularly scheduled passenger air service to interior Alaska villages, the North Slope, Anchorage, and the contiguous United States. This is especially important for remote villages with no road network that can only be accessed via aircraft (or boat during certain times of year). Together, FAI and ANC compose the Alaska International Airport System. As such, FAI plays a critical role in supporting international cargo technical stops between Asia and North America to refuel, service, and perform other maintenance. FAI also serves as a hub of General Aviation activity for the Fairbanks area.

An ATCT and associated TRACON is an airport observation facility that allows air traffic controllers to visually and electronically monitor aircraft take-offs, landings, and ground traffic within the airport to confirm proper separation of aircraft as they approach, depart, or pass through airspace controlled by the ATCT/TRACON and enhance the safety of aircraft operations at and in the vicinity of the airport.

The existing ATCT/TRACON site at FAI occupies approximately 1.5 acres of ADOT&PF-owned land centered at coordinates 64°48'38.88"N, 147°50'54.77"W. The ATCT, commissioned in 1977, consists of a tower, which is owned and operated by FAA, and a base building, which is owned and operated by ADOT&PF. FAA also leases a wing of the base building from ADOT&PF. The tower has a cab size of approximately 350 square feet (sq ft) with a cab eye level of 74 feet above ground level (AGL). The TRACON is housed within the ATCT shaft.

The tower cab height of the existing ATCT at FAI is too low, resulting in line-of-sight obstructions and visibility issues. Additionally, the facility lacks sufficient space to meet Air Traffic Control mission requirements. The proposed project would replace the outdated tower with an adequately sized, code compliant facility that meets the space, height, cab orientation operational (i.e., staffing and equipment), and safety requirements specified in FAA orders and regulations.

1.2 Project Description

FAA proposes to construct a new ATCT/TRACON and demolish the existing ATCT/TRACON at FAI. The preferred new ATCT/TRACON site would occupy approximately 5 acres centered at coordinates 64°48'44.0017"N, 147°50'33.4357"W (Figure 1). The new ATCT would have a cab size of approximately 550 sq ft with a cab eye level of 214 feet AGL. No administrative or operational functions would be inside the new ATCT shaft. The new TRACON would be located in a base building attached to the ATCT. Construction of the new ATCT/TRACON would begin in 2027 and conclude in 2032. The existing ATCT/TRACON would be demolished after the new ATCT/TRACON is completed and commissioned.

As part of the proposed project, new underground utility lines would be installed to connect the new ATCT/TRACON to water, sewer, gas, electrical, and telephone services along University Avenue South and to the FAA-owned Fiber Optic Transmission System (FOTS) at several locations across FAI. The FOTS consists of fiber optic cables, communications, monitoring, and auxiliary equipment that support critical services and facilities at the airport.

2.0 PHYSICAL AND BIOLOGICAL SETTING

The area affected by the proposed project is the discontinuous area consisting of the 1.5-acre existing ATCT/TRACON demolition footprint and staging area adjacent to the FAI east ramp tiedown area; the 5-acre new ATCT/TRACON construction footprint and staging area/laydown yard on the east side of University Avenue South; and 5 acres (4 linear miles of 10-foot-wide corridor) of utility lines composed of FOTS cable west of Runway 2R/20L; northeast of the FAI float pond; and along University Avenue South. One acre of water, sewer, gas, electrical, and telephone service lines is also included in the corridor along University Avenue South (Figure 2). Table 1 describes land use adjacent to FAI.

Table 1 Adjacent Land Use

DIRECTION	LAND USE
North	Mitchell Expressway; undeveloped FAI land owned by FAA; private residences; University of Alaska Fairbanks; Chena River.
East	Undeveloped FAI land owned by ADOT&PF; privately owned industrial and commercial sites outside airport property along Van Horn Road.
South	Tanana River; U.S. Army Fort Wainwright.
West	Partially developed FAI land owned by ADOT&PF; South Cushman ponds; mixed residential/commercial property; Chena River.

Notes:

ADOT&PF – Alaska Department of Transportation and Public Facilities

FAA – Federal Aviation Administration

FAI – Fairbanks International Airport

Source: Bureau of Land Management (BLM) 2024

FAI is situated in the Tanana Valley in an area of riparian shrub land and forested lowland habitat between the Chena River to the northwest and the Tanana River to the south. Most of the airport property is developed; however, the southwestern periphery and the land east of University Avenue South are relatively undisturbed and partially covered with dense stands of spruce (*Picea*) and birch (*Betula*) mixed with thickets of scrub alder (*Alnus*) and willow (*Salix spp.*; ADOT&PF 2014). Freshwater forested/shrub wetlands consisting primarily of mixed black spruce (*Picea mariana*) forest with shrub understory are generally concentrated on the eastern side of FAI property (ADOT&PF 2014; U.S. Fish and Wildlife Service [USFWS] 2024a). Upland communities are prominent on the western side of FAI property and include mixed needleleaf/deciduous forests consisting primarily of paper birch (*Betula papyrifera*) and white spruce (*Picea glauca*; U.S. Geological Survey [USGS] 1995).

Lakes, ponds, rivers, and streams are abundant in the Tanana Valley and provide aquatic habitat for multiple resident and anadromous fish species, including king salmon (*Oncorhynchus tshawytscha*), rainbow trout (*Oncorhynchus mykiss*), Arctic grayling (*Thymallus arcticus*), and northern pike (*Esox Lucius*; ADOT&PF 2014; U.S. Department of the Air Force [DAF] 2024). Sloughs, ponds, and wetland complexes adjacent to FAI provide varying levels of habitat for some resident fish species. Anecdotally, northern pike occur in the FAI float pond (ADOT&PF 2014).

The Tanana Valley provides year-round habitat for resident bird species and summer breeding habitat for migratory bird species. Species commonly found at FAI include sandhill cranes (*Grus canadensis*), ducks and geese (*Anatidae*), ravens (*Corvus corax*), and shorebirds (ADOT&PF 2014). East of the airport, a braided channel of the Tanana River runs along the southern edge of Fairbanks, and a number of gravel pits, sloughs, and ponds draw wildlife and especially birds to the area. The gravel pits and sloughs attract migrating birds, and adjacent grasslands and woodlands harbor a wide range of shorebirds and songbirds, particularly during the spring migration from late April to late May (Alaska Department of Fish and Game [ADF&G] 2024). A full list of bird species that may occur at FAI, which includes abundance and relative probability of presence summaries throughout the year, is included as Attachment 2.

Mammal species that may be present in the ROI include moose (*Alces alces*), black bear (*Ursus americanus*), marten (*Martes americana*), red squirrel (*Tamiasciurus hudsonicus*), snowshoe hare (*Lepus americanus*), muskrat (*Ondatra zibethicus*), and beaver (*Castor canadensis*; ADOT&PF 2014; DAF 2024). Small mammals attract and provide a year-round food source for terrestrial predators (e.g., fox and lynx), common ravens, and raptors (FAI 2024).

3.0 POTENTIALLY SENSITIVE BIOLOGICAL RESOURCES

Sensitive biological resources include habitats or natural communities that are either unique, of relatively limited distribution in the region, or of particularly high value for wildlife; and plant and wildlife species that are identified as sensitive, special status, candidate, threatened, or endangered or as eligible for listing as threatened or endangered by federal or state resource agencies in regional or local plans, regulations, or policies.

The Endangered Species Act (ESA; 16 United States Code [USC] 1531 et seq.) requires federal agencies, in consultation with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS; “the Services”), to confirm that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat essential to the conservation of a threatened or endangered species. As of October 2024, in the State of Alaska there are 40 species listed as threatened or endangered and one species listed as proposed threatened under the ESA (USFWS 2024b; National Oceanic and Atmospheric Administration [NOAA] 2024).

Alaska’s Wildlife Action Plan, prepared by ADF&G, is used to assess the needs of species of conservation concern and to prioritize conservation actions and research. The Plan identifies “Species of Greatest Conservation Need” (SGCN), including species whose population is small, declining, or under significant threat; species that are culturally, ecologically, or economically important; sentinel species, which are used as indicators of environmental change; and stewardship species, which have a high percentage of their North American or global populations in Alaska. There are 137 SGCN in the Central Alaska Bioregion, including fish, freshwater invertebrates, birds, amphibians, and mammals (ADF&G 2015).

The Migratory Bird Treaty Act (MBTA; 16 USC 703-712), as amended, protects most birds, nests, and eggs from being destroyed or possessed, whether or not they migrate. Federal agencies taking actions that could have measurable negative impacts on migratory birds are directed by Executive Order (EO) 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, to develop and implement a Memorandum of Understanding with USFWS to promote the conservation of migratory bird populations.

The Bald and Golden Eagle Protection Act (BGEPA; 16 USC 668-668c) prohibits the “take” of Bald (*Haliaeetus leucocephalus*) and golden (*Aquila chrysaetos*) eagles in the U.S., including harassing or destroying their nests or eggs, without a 50 CFR 22.26 permit.

Floodplains are lowland areas adjoining inland and coastal waters that are periodically inundated by flood waters, including flood-prone areas of offshore islands. Floodplains are valued for their natural flood and erosion control, enhancement of biological productivity, and socioeconomic benefits and functions. Floodplains are often discussed in terms of the *100-year flood*, also known as the *base flood*, which is a flood having a 1% chance of occurring in any given year. The area that will be inundated by a 100-year flood event is called a Special Flood Hazard Area (SFHA). EO 11988, *Floodplain Management*, requires federal agencies to avoid, to the extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of 100-year floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative. EO 11988 also directs federal agencies to comply with the National Flood Insurance Program (NFIP). The administration of the NFIP has been delegated to the Fairbanks North Star Borough (FNSB), which has established floodplain management regulations in Title 15, Chapter 4 of the Borough Code to regulate development within a SFHA by establishing methods, practices, and construction standards for minimizing flood damage.

The Clean Water Act (CWA; 33 USC 1251-1387) is the primary federal law that regulates water pollution and quality in the U.S. Section 404 of the CWA established a program administered by the U.S. Army Corps

of Engineers (USACE) to regulate the discharge of dredged or fill material into “waters of the U.S.” (WOTUS). Under CWA Section 404, any federal agency planning to work in WOTUS must obtain a Section 404 permit from USACE before initiating any regulated activity.

4.0 METHODOLOGY

Prior to performing the field survey, a desktop review of publicly available data was conducted to identify sensitive biological resources known to occur in the general vicinity of the ROI. Data sources that assisted in this analysis included:

- FAI Master Plan (ADOT&PF 2014)
- USFWS National Wetlands Inventory (NWI; USFWS 2024a)
- USFWS list of species that may occur in the vicinity of the ROI (USFWS 2024c)
- NOAA endangered, threatened, and candidate species in Alaska (NOAA 2024)
- State of Alaska endangered species list (ADF&G 2024)
- Google Earth aerial imagery of the ROI
- Avian Knowledge Network (AKN) phenology tool for birds of interest in the ROI (AKN 2024)

Mandy Hope, a NEPA Scientist with Brice, conducted a field survey of the proposed ROI on 23 September 2024; the ROI was visually inspected for the presence of biological resources. Photograph documentation is provided in Attachment 1.

5.0 RESULTS

5.1 Vegetation

The primary vegetation type observed in the ROI was mixed spruce/birch forest. Willow shrub and cottonwood (*Populus trichocarpa*) were observed with less frequency. Disturbed areas associated with the airfield were either paved or covered by grass. In the eastern portion of the ROI, including the proposed new ATCT/TRACON site, black spruce was the dominant conifer, with an understory comprised of willow, lowbush cranberry (*Vaccinium vitis-idaea* L.), wild rose (*Rosa acicularis*), tamarack (*Larix laricina*), and forbs.

5.2 Wildlife

During the field survey, a small group of ducks (likely mallards [*Anas platyrhynchos*]) was observed in a pond directly south of the FAI float pond, approximately 0.45 miles southwest of the proposed new ATCT/TRACON site and 0.30 miles west-southwest of the existing ATCT/TRACON. Other evidence of wildlife included moose droppings, bird calls, and squirrel calls. A full list of species directly and indirectly observed during the field survey is presented in Table 2. The status of each species (protected and if so, by what law/regulation) is also indicated.

Table 2 Wildlife Species Observed in the ROI

COMMON NAME	SCIENTIFIC NAME	STATUS
Black-capped chickadee ¹	<i>Poecile atricapillus</i>	Protected: MBTA
Common raven ¹	<i>Corvus corax</i>	Protected: MBTA
Gray Jay ^{1,2}	<i>Perisoreus canadensis</i>	Protected: MBTA
Mallard	<i>Anas platyrhynchos</i>	Protected: MBTA
Moose	<i>Alces alces</i>	Not protected
Red squirrel ^{1,2}	<i>Tamiasciurus hudsonicus</i>	Not protected

Notes:

¹ Species is also listed as SGCN in Alaska's *Wildlife Action Plan* (ADF&G 2015).

² Species was not physically observed but evidence of the species (e.g., droppings, calls, burrows, etc.) was observed.

ADF&G – Alaska Department of Fish and Game

MBTA – Migratory Bird Treaty Act

ROI – region of influence

SGCN – Species of Greatest Conservation Need

5.3 Waters and Wetlands

There are no surface water bodies in the ROI. An unnamed water-filled slough intersects University Avenue South adjacent to the southwest side of the proposed new ATCT/TRACON site. Another slough channel is present northeast of the site (FAA 2023a).

Groundwater has been encountered at FAI in most drilled boreholes and is typically found at depths from about ground surface to 12 feet below ground surface (bgs; FAA 2023b). Groundwater flow ranges seasonally between the northwest and southwest and groundwater depth is influenced by the Tanana and Chena Rivers, which fluctuate seasonally in response to snowmelt and glacial runoff (ADOT&PF 2019b; Claar and Lilly 1997). A USGS water well is located in the undeveloped portion of the new ATCT/TRACON site and is used for measuring groundwater elevation for the USGS National Water Information System. (FAA 2023b).

The entire FAI property is within the 500-year floodplain of the Tanana and Chena Rivers but is protected by earthen levees to the east and south. The new ATCT/TRACON site is located in the 100-year floodplain (ADOT&PF 2014; FEMA 2014; FAA 2023b).

The USFWS NWI indicates that approximately 3.3 acres of the proposed 5-acre new ATCT/TRACON site consists of undisturbed freshwater forested/shrub wetlands (USFWS 2024a).

6.0 EFFECTS ASSESSMENT

6.1 Vegetation

Up to 3.3 acres of vegetation in undeveloped areas may be cleared at the proposed new ATCT/TRACON site to accommodate a paved parking lot and potential construction laydown area. While this would result in long-term impacts on vegetation, it represents a small fraction of the forested area at FAI and would not impact the survival of any plant species. Therefore, adverse effects to vegetation would be minor.

6.2 Wildlife

The proposed project is unlikely to impact wildlife in the majority of the ROI, which is heavily developed with little suitable habitat. The portion of the ROI encompassing the new ATCT/TRACON site is approximately 65% forested, and although habitat would be removed for the proposed project, there is suitable forest and wetland habitat immediately adjacent to the site to the north, east, and south. Therefore, adverse impacts to wildlife in the vicinity of the construction area would be expected to be moderate and short-term.

The Proposed Action would have no effect on federally listed species or their designated critical habitat, as none were observed during the field survey or are expected to occur in the ROI (USFWS 2024c). Of the six wildlife species observed, four are listed as SGCN in Alaska's Wildlife Action Plan (ADF&G 2015; Table 2). There is no formal legislation protecting SGCN; however, it is recommended that every effort be made to avoid harming SGCN or their habitat during implementation of the proposed project.

Four bird species, all protected under the MBTA, were observed (directly or indirectly) in the ROI during the field survey (Table 2). In addition, the following species protected under the MBTA and/or BGEPA may be present in the project area (USFWS 2024c): American golden-plover (*Pluvialis dominica*), bald eagle, golden eagle, Hudsonian godwit (*Limosa haemastica*), lesser yellowlegs (*Tringa flavipes*), and olive-sided flycatcher (*Contopus cooperi*). USFWS has established recommended avoidance windows for vegetation clearing, ground disturbance, and other site construction activities during bird breeding and nesting seasons. In interior Alaska, this avoidance window is 1 May to 20 July for seabird colonies; 1 March to 31 August for eagles; and 1 May to 15 July for all other species (USFWS 2024d). Furthermore, to avoid impacts to eagles, USFWS generally recommends that no clearing of vegetation should occur within 330 feet of any eagle nest; no activity should occur within 660 feet of any eagle nests between 1 March and 1 June; and no activity should occur within 660 feet of active eagle nests between 1 June and 31 August until after juvenile birds have fledged, unless specifically authorized by USFWS (Alaska Department of Natural Resources [DNR] 2024). Construction workers should follow the USFWS nationwide avoidance and minimization measures for birds, including (USFWS 2024e):

- When project activities cannot occur outside the bird nesting season, conduct surveys prior to scheduled activity to determine if active nests are present within the area of impact and buffer any nesting locations found during surveys.
- Educate all employees, contractors, and/or site visitors of relevant rules and regulations that protect wildlife.
- Prior to removal of an inactive nest, verify that the nest is not protected under the ESA or the BGEPA. Nests protected under these acts cannot be removed without a valid permit.
- Do not collect birds (live or dead) or their parts (e.g., feathers) or nests, or remove active nests without a valid authorization or permit.
- Provide enclosed solid waste receptacles at all project areas. Non-hazardous solid waste (trash) should be collected and deposited in the onsite receptacles. Solid waste would be collected and disposed of by a local waste disposal contractor.

FAA would employ any additional best management practices (BMPs) recommended by the USFWS for this project as necessary to avoid impacts on bird species. If during project implementation it is determined that take of species protected under the MBTA and/or BGEPA may be necessary, FAA would coordinate with USFWS to obtain a federal permit.

6.3 Waters and Wetlands

Surface water flow at the southern end of the site generally follows the slough to the south, and flow at the northern end of the site is generally to the northeast. Construction activities such as clearing, grading, trenching, and excavating could displace sediment into nearby waterbodies through stormwater. The Alaska Pollutant Discharge Elimination System stormwater program requires facility owners and operators with stormwater discharges associated with applicable industrial activities to obtain a Multi-Sector General Permit. In addition, construction site operators engaged in activities that disturb 1 acre or more are required to obtain a Construction General Permit for Stormwater Discharge for Large and Small Construction Activities. The CGP mandates the use of BMPs to verify that the facility's operations and soil disturbed during construction do not pollute nearby water bodies. Site/facility operators must prepare a Notice of Intent to discharge stormwater and a Stormwater Pollution Prevention Plan to be implemented during construction and throughout facility operations.

During the construction phase, the proposed project could result in accidental spills or leaks of substances such as fuels, oils, and other materials, that could contaminate groundwater and aquifers beneath FAI. Such risk would be minimized by following equipment maintenance standards, use of secondary containment for temporary storage of hazardous materials, and other project-specific BMPs.

The proposed project would result in 217,800 square feet (5 acres) of disturbance and the addition of 217,800 square feet (5 acres) of new impervious surface into the SFHA floodplain. The loss of permeable surface area due to the proposed project would result in displacement of 435,600 cubic feet of floodwater, equating to a 0.007-foot increase in base flood elevation. FAA would be required to obtain a Floodplain Permit for the proposed project from the FNSB to confirm any new construction is elevated to the proper height to minimize flood loss. The increase in base flood elevation resulting from the loss of permeable surface area would not significantly impact the floodplain's ability to moderate floodwaters, as most of the area outside the developed portion of the ROI is heavily vegetated with forest, brush, and wetlands, which slow or impede the flow of floodwaters and trap or filter out woody debris and silt. The airport is also protected by earthen levees, and flooding is managed by the Chena River Lakes Flood Control Project.

Approximately 3.3 acres of presumed freshwater forested/shrub wetlands would be paved and filled as part of the proposed project. While this would result in a long-term adverse impact on wetland function, the loss represents only 0.000038% of the total wetlands in the Greater Fairbanks area (USFWS 2010, 2011) and would not be expected to significantly affect groundwater recharge, water quality, stormwater attenuation, aesthetic and noise buffering, or habitat values in the ROI. Wetland habitat is present adjacent to the ROI and would not be filled; the nearby wetlands would likely compensate for the loss of wetland function caused by the Proposed Action.

A wetland delineation has not been conducted at the new site to determine whether such wetlands would be considered WOTUS subject to USACE jurisdiction. FAA is currently working with USACE to determine the need for wetlands delineation and subsequent permitting pursuant to Section 404 of the CWA. The wetland permitting process, if required, and project execution would be conducted in accordance with federal, state, and local regulations, thereby ensuring that this impact would be reduced to the maximum extent practicable.

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FIGURES

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Document Path: G:\PROJECTS\BRS\FAACBP_FAI_ATCT_EA_GIS1_MXD\SSHP\F04_1_ATCT_Siting_Als.mxd



ENVIRONMENTAL ASSESSMENT FOR PROPOSED
AIRPORT TRAFFIC CONTROL TOWER/TERMINAL
RADAR APPROACH CONTROL FACILITY
REPLACEMENT
FAIRBANKS INTERNATIONAL AIRPORT, ALASKA
REPLACEMENT ATCT/TRACON SITE
ALTERNATIVES CONSIDERED



Legend

- Existing ATCT/TRACON
- ATCT Siting Alternatives

Abbreviations

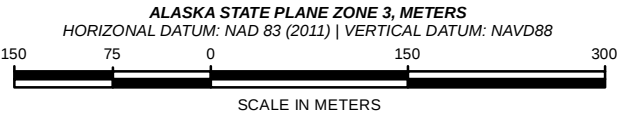
- ATCT Airport Traffic Control Tower
- TRACON Terminal Radar Approach Control Facility

Notes

- 1. For conceptual purposes only. All locations are approximate.

References

- 1. FAA. 2023. Airport Traffic Control Tower Siting Report. June 29.
- 2. Basemap source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.



PROJECT No.: ACBP01	DATE: 10/31/2024	FIGURE: 1
P.M.: M.H.	DRAWN: R.R.	



ENVIRONMENTAL ASSESSMENT FOR PROPOSED
AIRPORT TRAFFIC CONTROL TOWER/TERMINAL
RADAR APPROACH CONTROL FACILITY
REPLACEMENT
FAIRBANKS INTERNATIONAL AIRPORT, ALASKA
REGION OF INFLUENCE FOR THE PROPOSED
ACTION

- Legend**
- Existing ATCT/TRAcon
 - ATCT/TRAcon Site Alternative
 - Underground Utilities
 - Fairbanks International Airport Boundary

Abbreviations

ATCT Airport Traffic Control Tower
TRAcon Terminal Radar Approach Control Facility

Notes

1. For conceptual purposes only. All locations are approximate.

References

1. Basemap source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

ALASKA STATE PLANE ZONE 3, METERS
HORIZONTAL DATUM: NAD 83 (2011) | VERTICAL DATUM: NAVD88

350 175 0 350 700

SCALE IN METERS

PROJECT No.: ACBP01	DATE: 2/12/2025	FIGURE: 2
P.M.: M.H.	DRAWN: R.R.	

ATTACHMENT 1
PHOTOGRAPH LOG

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Photograph 1: Communications building (foreground) and FAI airfield (background; facing north-northeast).



Photograph 2: Cleared utility easement directly south of the Parks Highway at northern end of FAI (facing southeast).



Photograph 3: Remote Transmitter/Receiver (RTR) building at northeast end of FAI (facing south-southwest).



Photograph 4: Cleared utility easement at northeast end of FAI (facing southwest).



Photograph 5: Intersection of Float Pond Road and University Avenue South (facing northwest).



Photograph 6: Utility easement between University Avenue South and undeveloped portion of FAI to the east (facing northwest).



Photograph 7: Mixed black spruce forest at northwest corner of new ATCT/TRACON site (facing south).



Photograph 8: Mixed black spruce forest at northwest corner of new ATCT/TRACON site (facing west).



Photograph 9: Moose droppings observed in forested northern portion of new ATCT/TRACON site.



Photograph 10: Northern edge where undisturbed and previously cleared areas meet in southwest portion of new ATCT/TRACON site (facing west).



Photograph 11: Previously cleared area in southwest portion of new ATCT/TRACON site (facing northwest).



Photograph 12: Unnamed slough directly adjacent to southern corner of new ATCT/TRACON site (facing southeast).



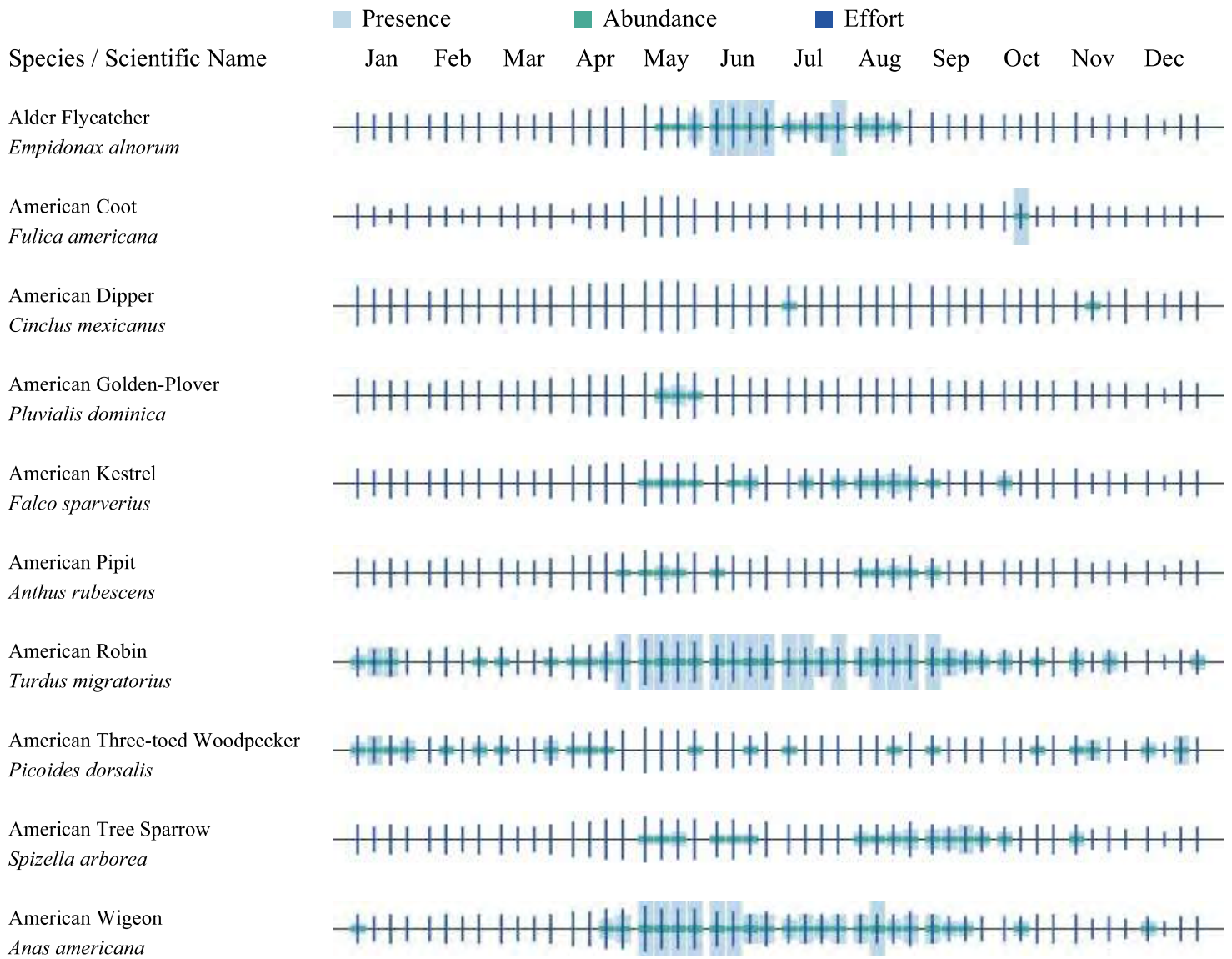
Photograph 13: Existing ATCT/TRACON (facing southwest).

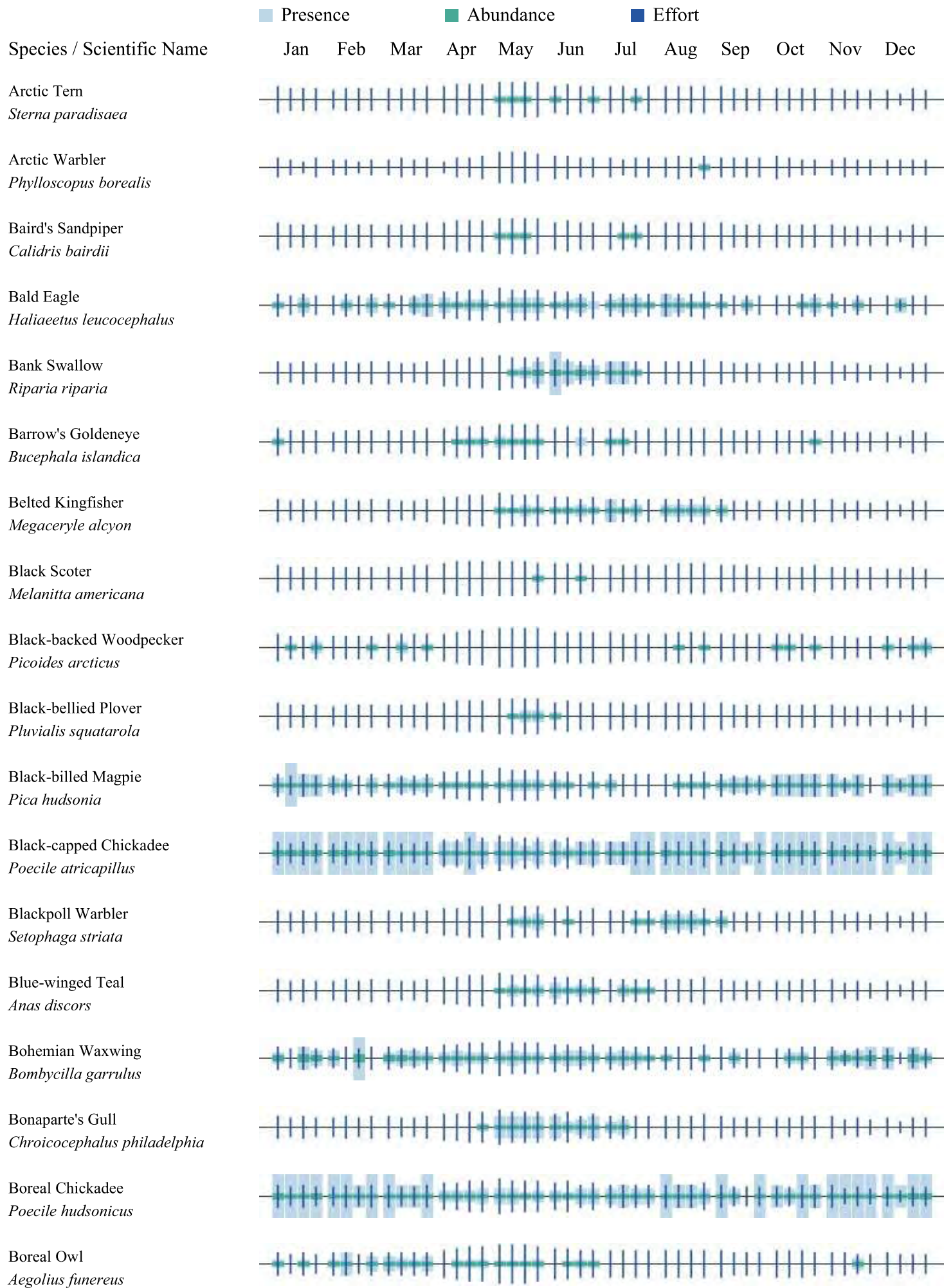
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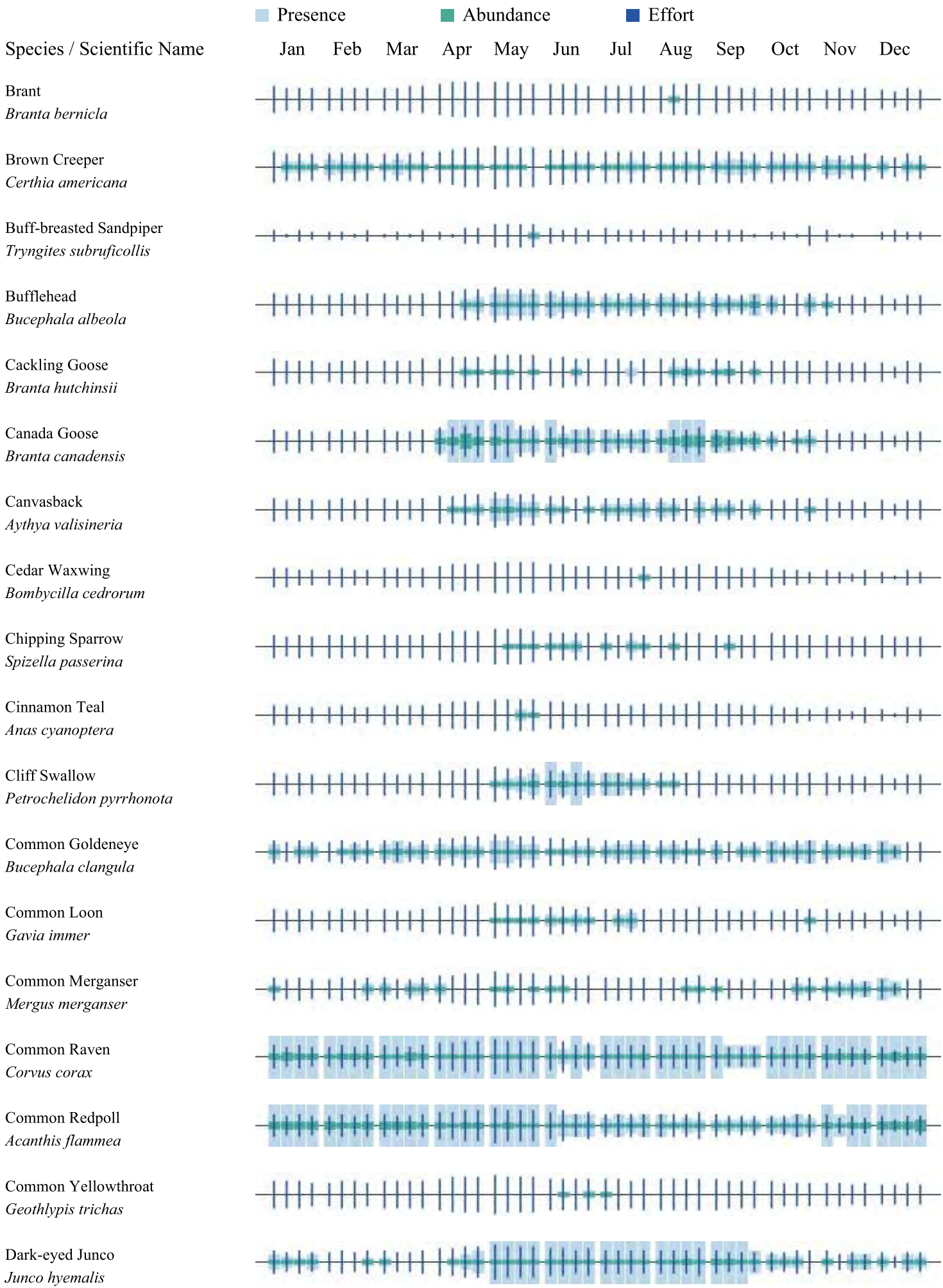
ATTACHMENT 2
PROBABILITY OF PRESENCE SUMMARY FOR BIRD SPECIES OCCURRING
AT FAIRBANKS INTERNATIONAL AIRPORT

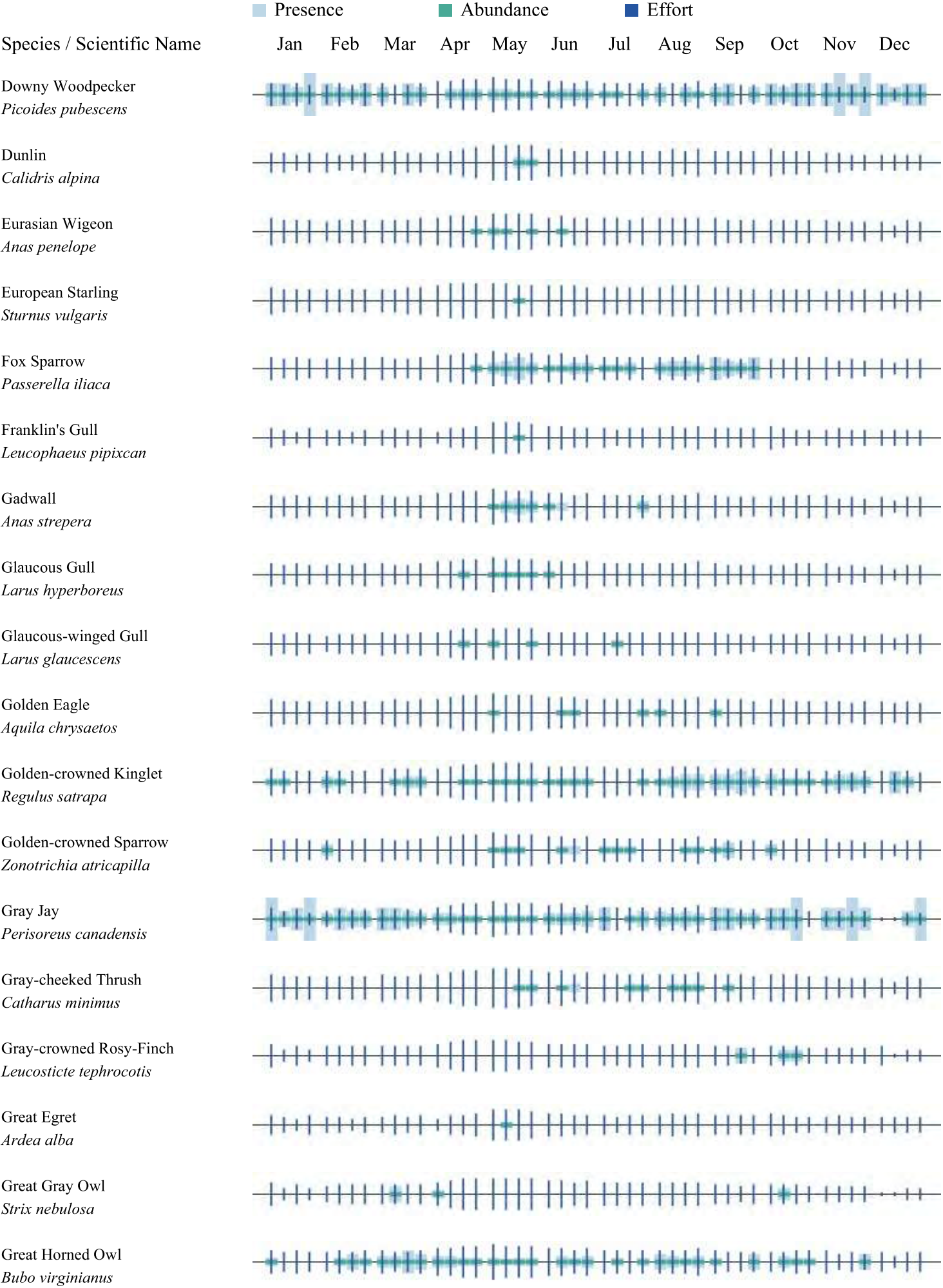
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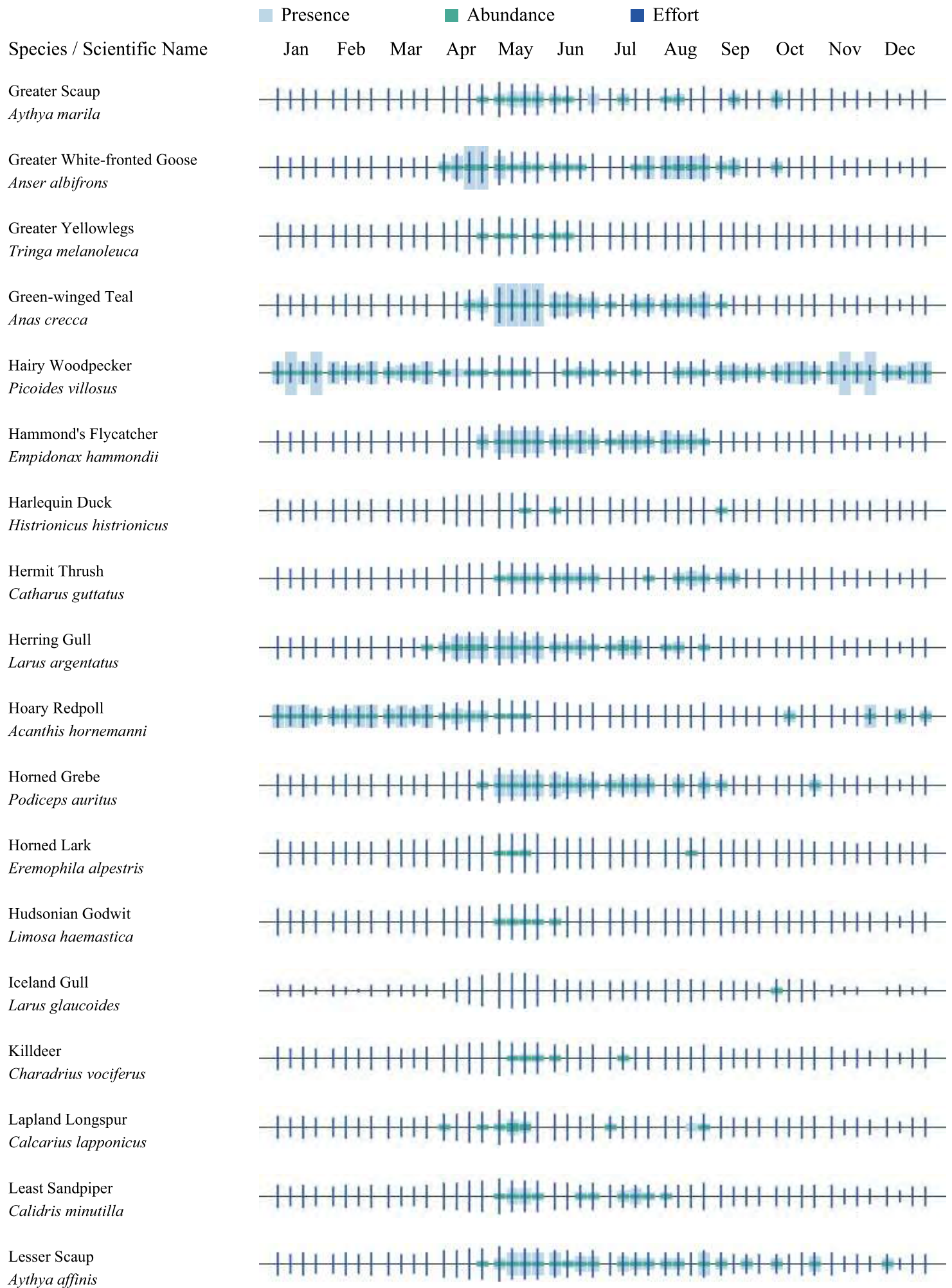
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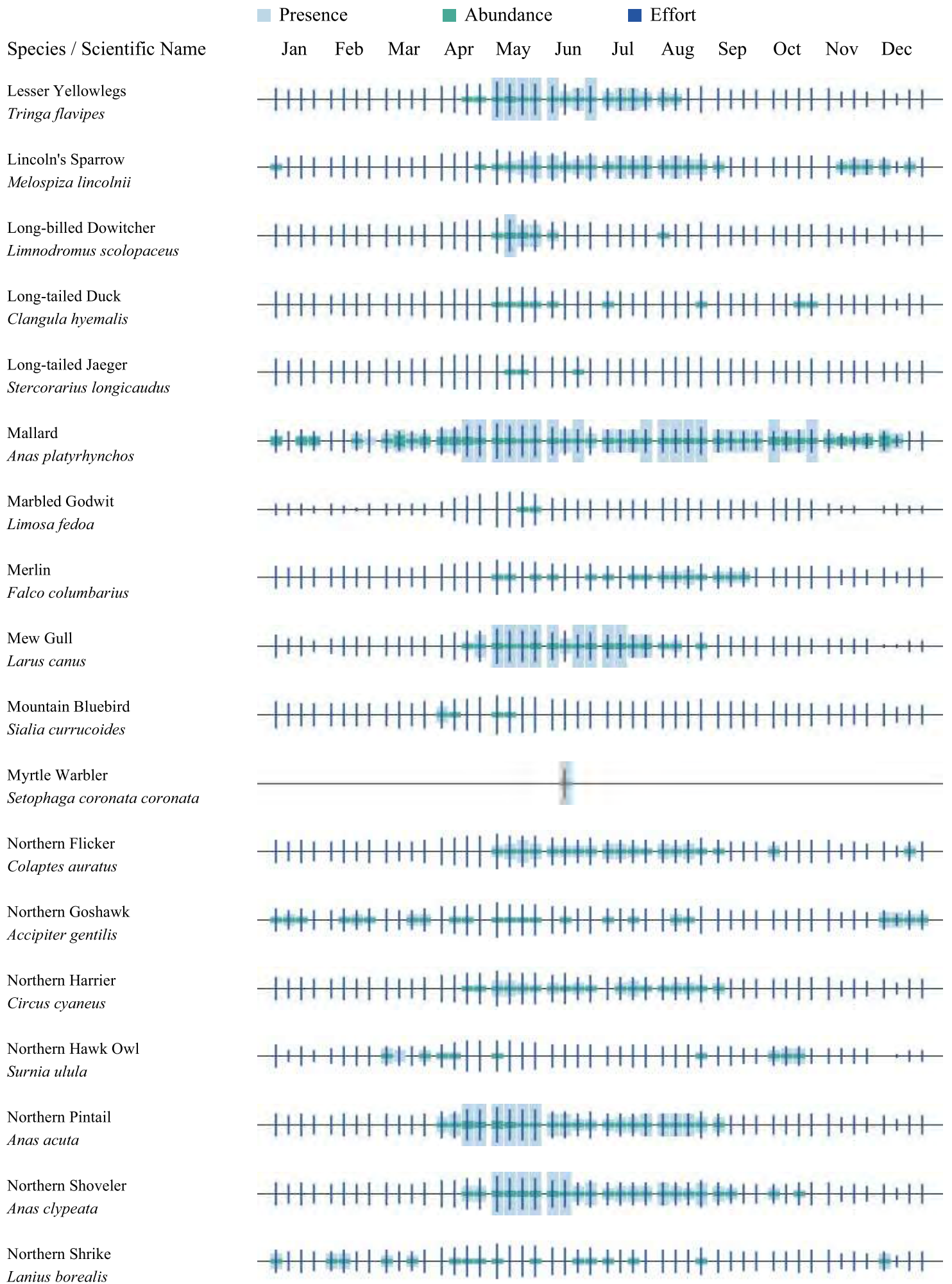


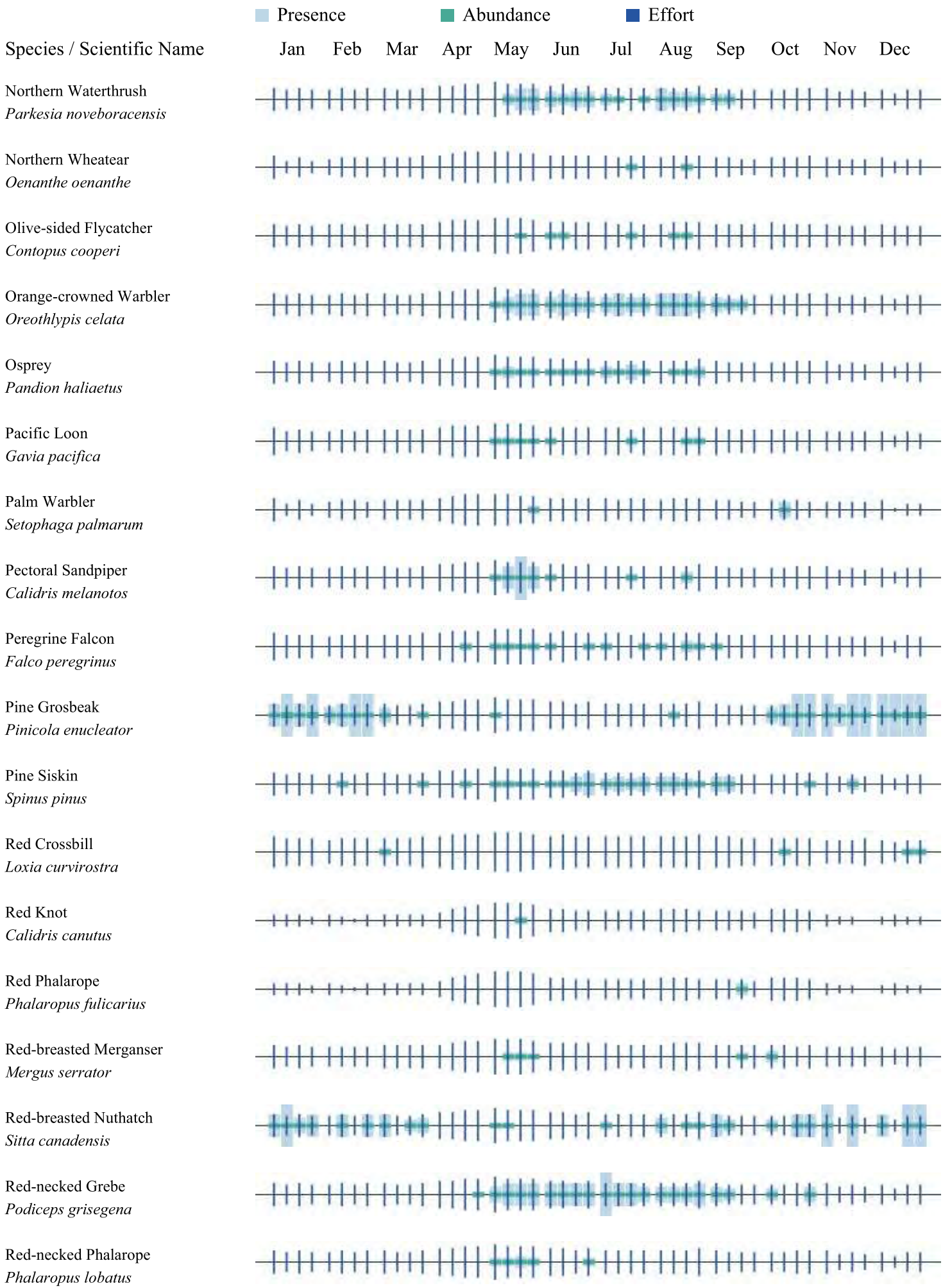


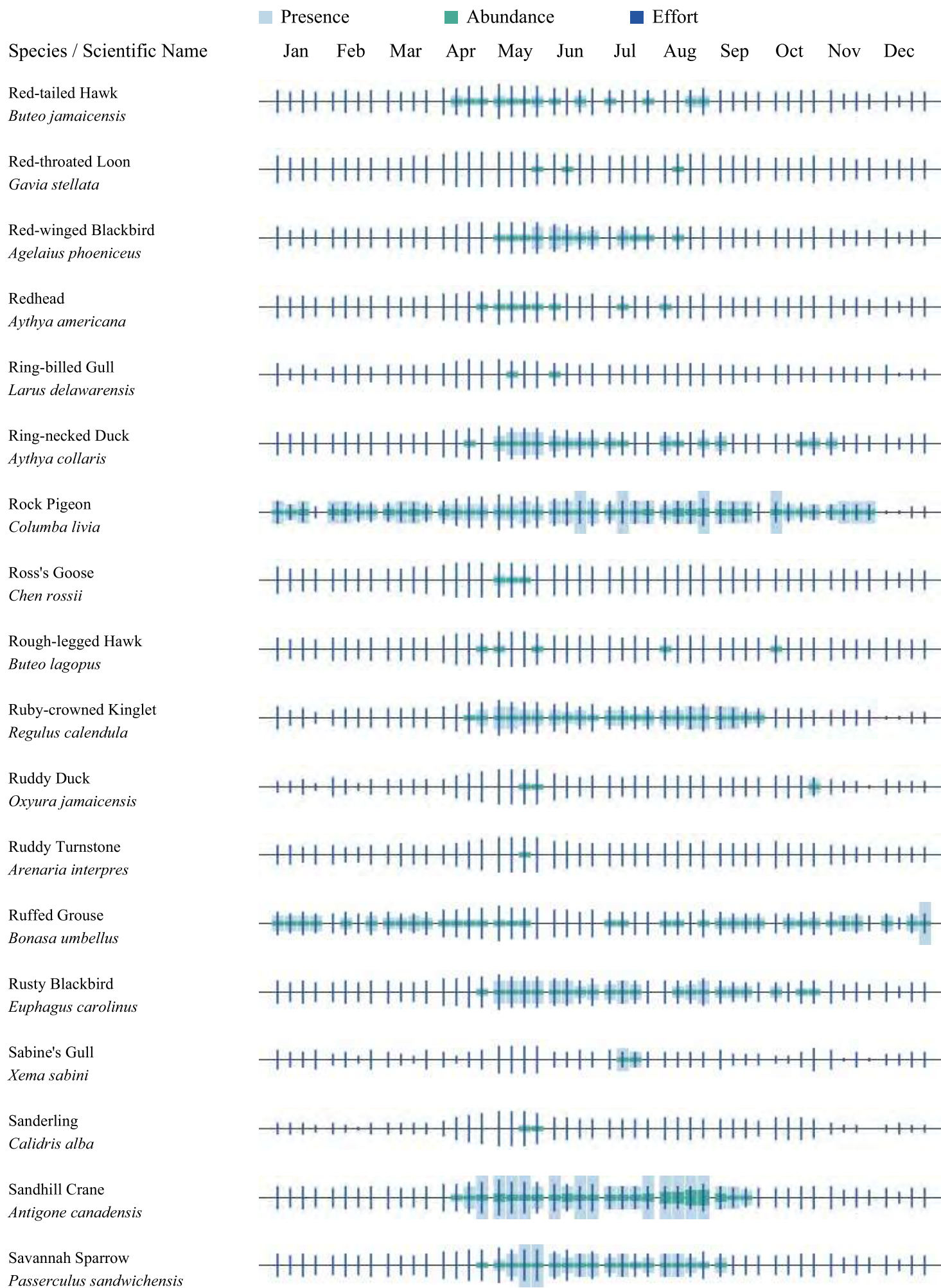


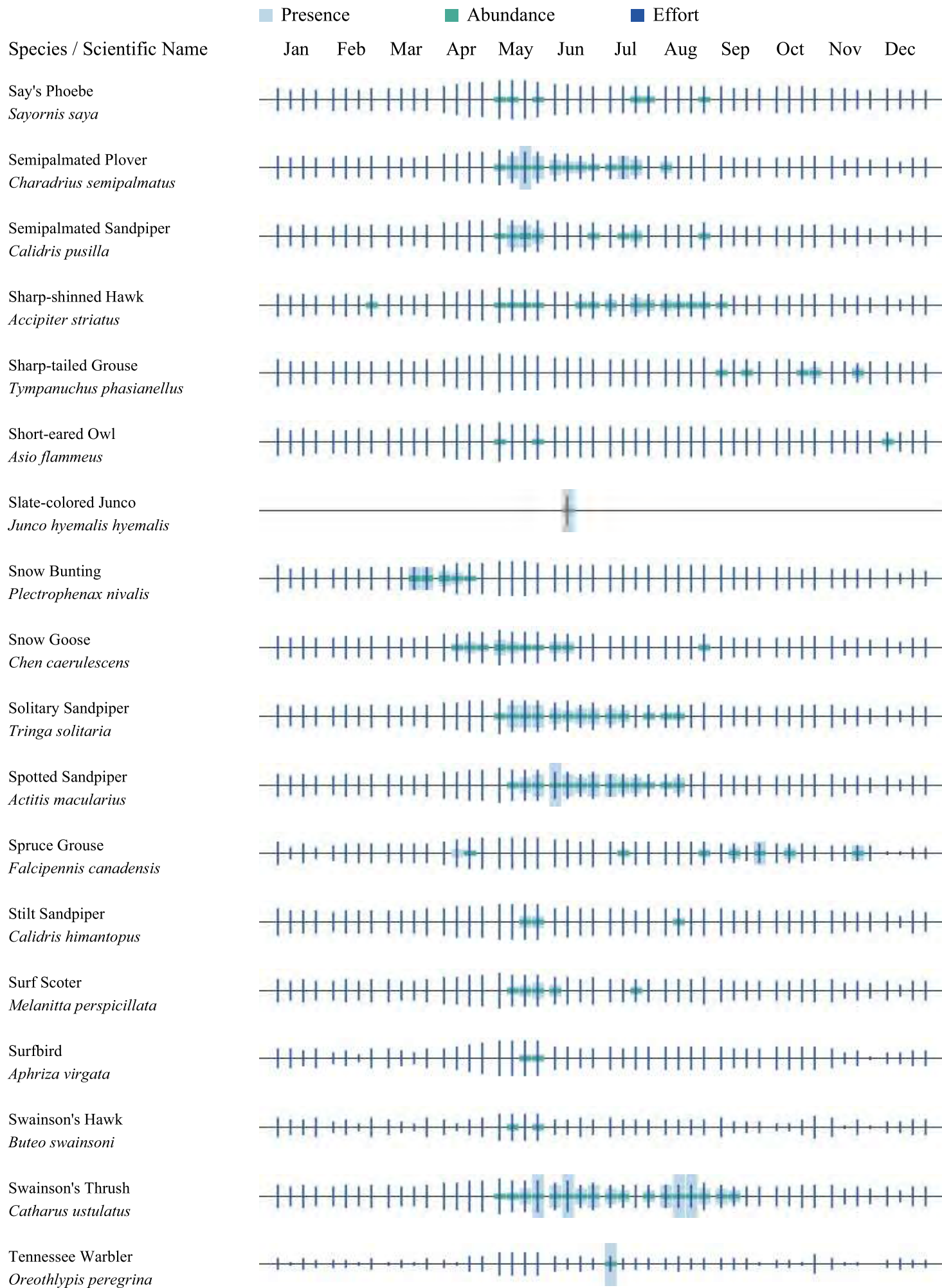


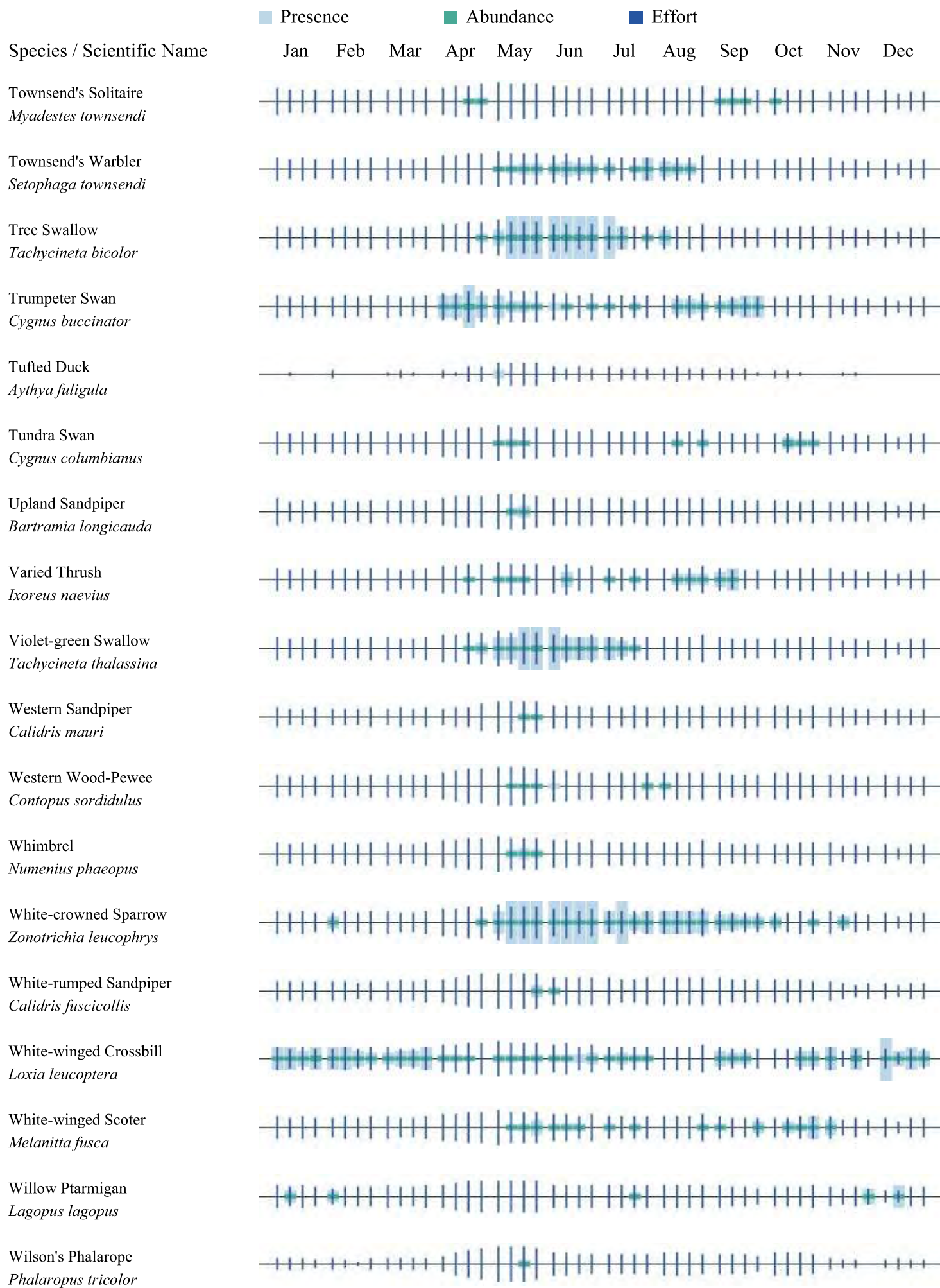


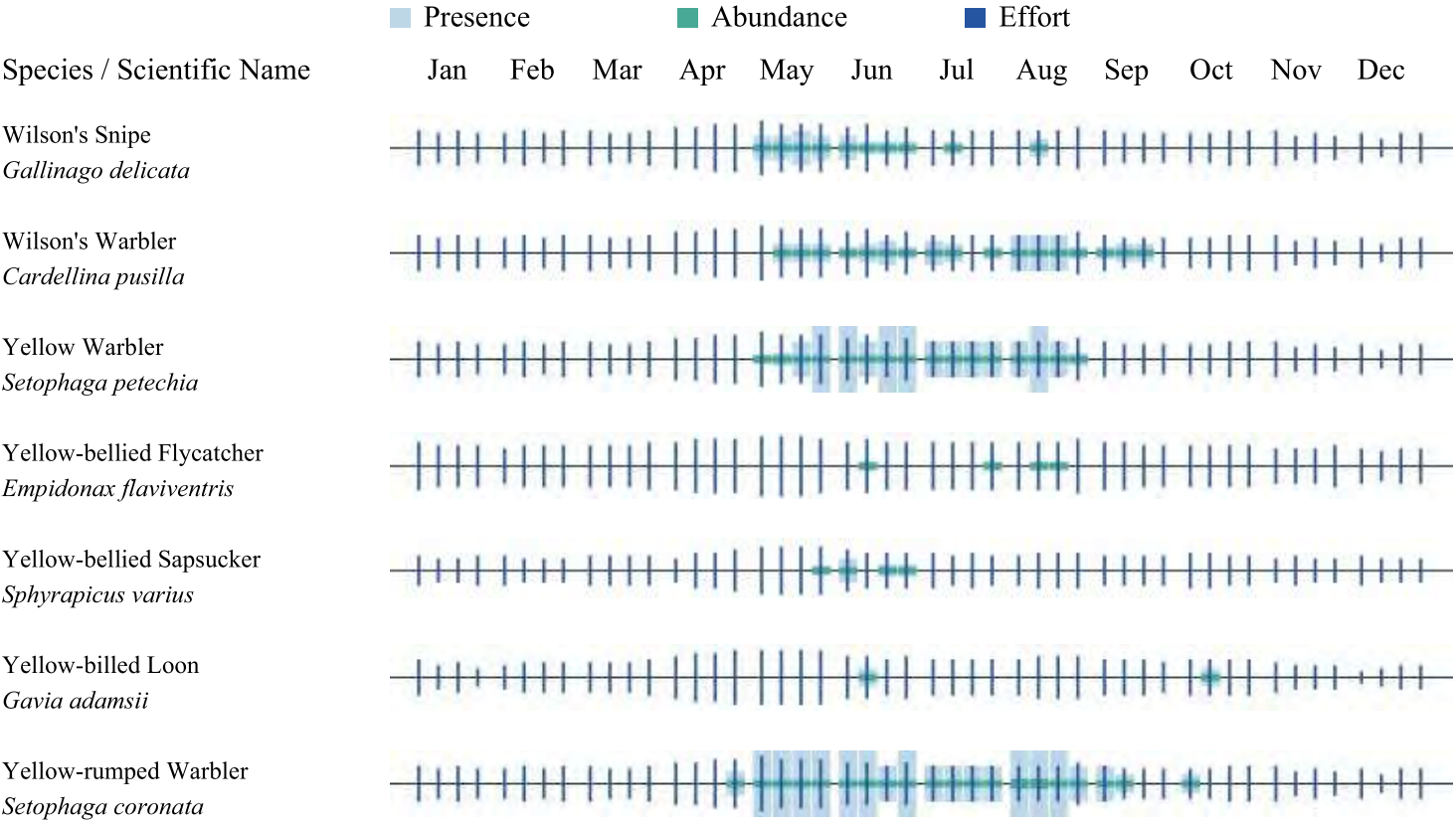












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APPENDIX E
EPA SIMPLIFIED GREENHOUSE GAS EMISSIONS CALCULATOR

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Emissions Summary

Guidance

The total GHG emissions from each source category are provided below. You may also use this summary sheet to fill out the *Annual GHG Inventory Summary and Goal Tracking Form* (.xls) as this calculator only quantifies one year of emissions at a time.

<https://www.epa.gov/climateleadership/target-setting>

By entering the data below into the appropriate cell of the *Annual GHG Inventory Summary and Goal Tracking Form*, you will be able to compare multiple years of data.

If you have multiple Calculator files covering sub-sets of your inventory for a particular reporting period, sum each of the emission categories (e.g. Stationary Combustion) to an organizational total, which then can be entered into the *Annual GHG Inventory Summary and Goal Tracking Form*.

(A) Enter organization information into the orange cells. Other cells on this sheet will be automatically calculated from the data entered in the sheets in this workbook. Blue cells indicate required emission sources if applicable. Green cells indicate scope 3 emission sources and offsets, which organizations may optionally include in its inventory.

(B) The "Go To Sheet" buttons can be used to navigate to the data entry sheets.

Organizational Information:

Organization Name:	Fairbanks International Airport	
Organization Address:	6450 Airport Way, Fairbanks, AK 99709	
Inventory Reporting Period:		
	Start: 5/1/2026	End: 9/30/2029
Name of Preparer:	Mandy Hope	
Phone Number of Preparer:		
Date Prepared:	10/30/2024	

Scope 1 Emissions

Go To Sheet	Stationary Combustion	0
Go To Sheet	Mobile Sources	410
Go To Sheet	Refrigeration / AC Equipment Use	0
Go To Sheet	Fire Suppression	0
Go To Sheet	Purchased Gases	0

Location-Based Scope 2 Emissions

Go To Sheet	Purchased and Consumed Electricity	0
Go To Sheet	Purchased and Consumed Steam	0

Market-Based Scope 2 Emissions

Go To Sheet	Purchased and Consumed Electricity	0
Go To Sheet	Purchased and Consumed Steam	0

Total Scope 1 & Location-Based Scope 2	410
Total Scope 1 & Market-Based Scope 2	410

Go To Sheet	Offsets	0
-------------	---------	---

Net Scope 1 and 2 Location-Based Emissions	410
Net Scope 1 and 2 Market-Based Emissions	410

Go To Sheet	Employee Business Travel	0
Go To Sheet	Employee Commuting	0
Go To Sheet	Upstream Transportation and Distribution	0
Go To Sheet		0

Go To Sheet	Biomass CO ₂ Emissions from Stationary Sources	0
Go To Sheet	Biomass CO ₂ Emissions from Mobile Sources	0

Scope 1 Emissions from Mobile Sources

Guidance

(A) Enter annual data for each vehicle or group of vehicles (grouped by vehicle type, vehicle year, and fuel type) in ORANGE cells in **Table 1**. Example entry is shown in first row (**GREEN Italic**). Only enter vehicles owned or leased by your organization on this sheet. All other vehicle use such as employee commuting or business travel is considered a scope 3 emissions source and should be reported in the corresponding scope 3 sheets.

- Note: As of the v9 Simplified GHG Calculation tool update, the latest mobile combustion factors reflect year 2020 data. Therefore, for all vehicle model years 2021 onward, the 2020 year factor is used.
- Select "On-Road" or "Non-Road" from drop down box to determine the Vehicle Types available. **Must make this selection before picking vehicle type.**
- Select "Vehicle Type" from drop down box (closest type available).
- Enter "Fuel Usage" in appropriate units (units appear when vehicle type is selected).
 - If mileage or fuel usage is unknown, estimate using approximate fuel economy values (see [Reference Table](#) below).
 - Vehicle year and Miles traveled are not necessary for non-road equipment.

(B) When using biofuels, typically the biofuel (biodiesel or ethanol) is mixed with a petroleum fuel (diesel or gasoline) for use in vehicles. Enter the biodiesel and ethanol percentages of the fuel if known, or leave default values.

Biodiesel Percent:	0
Ethanol Percent:	0

(C) Biomass CO₂ emissions from biodiesel and ethanol are not reported in the total emissions, but are reported separately at the bottom of the sheet.

Table 1. Mobile Source Fuel Combustion and Miles Traveled[illegible]

Reference Table: Average Fuel Economy by Vehicle Type		
Vehicle Type	Average Fuel Economy (mpg)	
Passenger Cars		25.3
Motorcycles		44.0
Diesel Buses (Diesel Heavy-Duty Vehicles)		7.3
Other 2-axle, 4-Tire Vehicles		18.0
Single unit 2-Axle 6-Tire or More Trucks		7.6
Combination Trucks		6.2

Average mpg values from the U.S. Department of Transportation, Federal Highway Administration, Highway Statistics 2020 (November 2022), Table VM-1.

GHG Emissions

Total Organization-Wide Mobile Source Fuel Usage and CO₂ Emissions (On-Road and Off-Road Vehicles)

Fuel Type	Fuel Usage	Units	CO ₂ (kg)
		0	
	33,600		
	0		
Aviation Gasoline	0	gallons	0.0
Kerosene-Type Jet Fuel	0	gallons	0.0
Liquefied Petroleum Gas (LPG)	0	gallons	0.0
Ethanol	0	gallons	0.0
Biodiesel	0	gallons	0.0
Liquefied Natural Gas (LNG)	0	gallons	0.0
Compressed Natural Gas (CNG)	0	scf	0.0

Note: emissions here are only for the gasoline portion of the fuel, biogenic CO₂ emissions are reported below
Note: emissions here are only for the diesel portion of the fuel, biogenic CO₂ emissions are reported below

Total Organization-Wide On-Road Gasoline Mobile Source Mileage and CH₄/N₂O Emissions

Vehicle Type	Vehicle Year	Mileage (miles)	CH ₄ (g)	N ₂ O (g)
Passenger Cars - Gasoline	1984-93	0	0.0	0.0
	1994	0	0.0	0.0
	1995	0	0.0	0.0
	1996	0	0.0	0.0
	1997	0	0.0	0.0
	1998	0	0.0	0.0
	1999	0	0.0	0.0
	2000	0	0.0	0.0
	2001	0	0.0	0.0
	2002	0	0.0	0.0
	2003	0	0.0	0.0
	2004	0	0.0	0.0
	2005	0	0.0	0.0
	2006	0	0.0	0.0
	2007	0	0.0	0.0
	2008	0	0.0	0.0
	2009	0	0.0	0.0
	2010	0	0.0	0.0
	2011	0	0.0	0.0
	2012	0	0.0	0.0
	2013	0	0.0	0.0
	2014	0	0.0	0.0
	2015	0	0.0	0.0
	2016	0	0.0	0.0
	2017	0	0.0	0.0
Light-Duty Trucks - Gasoline (Vans, Pickup Trucks, SUVs)	1987-93	0	0.0	0.0
	1994	0	0.0	0.0
	1995	0	0.0	0.0
	1996	0	0.0	0.0
	1997	0	0.0	0.0
	1998	0	0.0	0.0
	1999	0	0.0	0.0
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	2012	0	0.0	0.0
	2013	0	0.0	0.0
	2014	0	0.0	0.0
	2015	0	0.0	0.0
	2016	0	0.0	0.0
	2017	0	0.0	0.0
Heavy-Duty Vehicles - Gasoline	1985-86	0	0.0	0.0
	1987	0	0.0	0.0
	1988-1989	0	0.0	0.0
	1990-1995	0	0.0	0.0
	1996	0	0.0	0.0
	1997	0	0.0	0.0
	1998	0	0.0	0.0
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	2011	0	0.0	0.0
	2012	0	0.0	0.0
	2013	0	0.0	0.0
	2014	0	0.0	0.0
	2015	0	0.0	0.0
	2016	0	0.0	0.0
Motorcycles - Gasoline	1960-1995	0	0.0	0.0
	1996-2005	0	0.0	0.0
	2006-2023	0	0.0	0.0

Total Organization-Wide On-Road Non-Gasoline Mobile Source Mileage and CH₄/N₂O Emissions

Vehicle Type	Fuel Type	Vehicle Year	Mileage (miles)	CH ₄ (g)	N ₂ O (g)
		2007-2023	0	0	0
Light-Duty Trucks - Diesel	Diesel	1960-1982	0	0	0
		1983-2006	0	0	0
		2007-2023	0	0	0
Medium- and Heavy-Duty Vehicles	Diesel	1960-2006	0	0	0
		2007-2023	0	0	0
Light-Duty Cars	Methanol		0	0.0	0.0
	Ethanol		0	0.0	0.0
	CNG		0	0.0	0.0
	LPG		0	0.0	0.0
	Biodiesel		0	0.0	0.0
Light-Duty Trucks	Ethanol		0	0.0	0.0
	CNG		0	0.0	0.0
	LPG		0	0.0	0.0
	LNG		0	0.0	0.0
	Biodiesel		0	0.0	0.0
Medium-Duty Trucks	CNG		0	0.0	0.0
	LPG		0	0.0	0.0
	LNG		0	0.0	0.0
	Biodiesel		0	0.0	0.0
Heavy-Duty Trucks	Methanol		0	0.0	0.0
	Ethanol		0	0.0	0.0
	CNG		0	0.0	0.0
	LPG		0	0.0	0.0
	LNG		0	0.0	0.0
Buses	Biodiesel		0	0.0	0.0
	Methanol		0	0.0	0.0
	Ethanol		0	0.0	0.0
	CNG		0	0.0	0.0
	LPG		0	0.0	0.0
			0	0.0	0.0

Total Organization-Wide Non-Road Mobile Source Fuel Usage and CH₄/N₂O Emissions

Vehicle Type	Fuel Type	Fuel Usage (gallons)	CH ₄ (g)	N ₂ O (g)
Ships and Boats	Residual Fuel Oil	-	-	-
	Gasoline (2 stroke)	-	-	-
	Gasoline (4 stroke)	-	-	-
	Diesel	-	-	-
Locomotives	Diesel	-	-	-
Aircraft	Jet Fuel	-	-	-
Agricultural Equipment	Aviation Gasoline	-	-	-
	Gasoline (2 stroke)	-	-	-
	Gasoline (4 stroke)	-	-	-
	Gasoline Off-Road Trucks	-	-	-
	Diesel Equipment	-	-	-
	Diesel Off-Road Trucks	-	-	-
Construction/Mining Equipment	LPG	-	-	-
	Gasoline (2 stroke)	-	-	-
	Gasoline (4 stroke)	-	-	-
	Gasoline Off-Road Trucks	-	-	-
	Diesel Equipment	220,500	222,705	207,270
	Diesel Off-Road Trucks	-	-	-
Lawn and Garden Equipment	LPG	-	-	-
	Gasoline (2 stroke)	-	-	-
	Gasoline (4 stroke)	-	-	-
	Diesel	-	-	-
Airport Equipment	LPG	-	-	-
	Gasoline	-	-	-
	Diesel	-	-	-
Industrial/Commercial Equipment	LPG	-	-	-
	Gasoline (2 stroke)	-	-	-
	Gasoline (4 stroke)	-	-	-
Logging Equipment	Diesel	-	-	-
	Gasoline (4 stroke)	-	-	-
	Gasoline (2 stroke)	-	-	-
Railroad Equipment	LPG	-	-	-
	Diesel	-	-	-
	Gasoline	-	-	-
Recreational Equipment	LPG	-	-	-
	Diesel	-	-	-
	Gasoline (4 stroke)	-	-	-

Total CO₂ Equivalent Emissions (metric tons) - Mobile Sources	410.4
Total Biomass CO₂ Equivalent Emissions (metric tons) - Mobile Sources	0.0

APPENDIX F

FAIRBANKS INTERNATIONAL AIRPORT TOWER SITING REPORT

Note: The attached ATCT Siting Report is included to provide background information regarding site selection for the Proposed Action. Certain appendices referenced within the Siting Report consist of supporting technical documentation maintained separately from the report. Those materials were not incorporated into this EA because they are outside the scope of the environmental analysis and are not relied upon for environmental impact determinations presented herein. Accordingly, those materials are not included in Appendix F.

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Federal Aviation
Administration

Fairbanks International Airport Fairbanks, Alaska

**Airport Traffic Control Tower
Siting Report**

**Engineering Service
Terminal Engineering Center**

**Developed by:
Susan Bertram**

Effective Date: June 29, 2023

EXECUTIVE SUMMARY

The Fairbanks International Airport (FAI) Airport Traffic Control Tower (ATCT) is an FAA-owned facility. The existing FAI tower was commissioned in 1977. The existing cab size is approximately 350 square feet with a cab eye level of 74 feet above ground level (AGL). The FAI ATCT is a tier level 3 facility. This siting report provides a discussion of the siting process, evaluation criteria for the new tower, an overview of all potential sites considered, a detailed evaluation of the primary site options, and the conclusions and recommendations.

The cost estimates and building sizes presented in this report are for planning and site selection purposes only.

The proposed action is to identify and reserve a location on the airport for a potential replacement of the ATCT facility. Representatives from the FAA and the FAI airport authority met at the Airport Facilities Terminal Integration Laboratory (AFTIL) in Atlantic City, New Jersey October 18–20, 2022 to participate in ATCT siting activities. The team followed FAA Siting Order 6480.4, Airport Traffic Control Tower Siting Process, to determine viable/preferred sites for a potential new ATCT.

Recommended Action/Location

The recommended site is Site 1. The tower center coordinates are 64°48'44.0017"N, 147°50'33.4357"W. The proposed tower cab floor elevation is 209 feet AGL and 604 feet above mean sea level (AMSL). This is the shortest possible ATCT that meets all siting criteria and is deemed safe under the Safety Management System (SMS). The proposed tower provides unobstructed views of all controlled airport surface areas and maximum visibility of all airborne traffic.

The tower will have a 12-sided, 550 square-foot cab with mullions and slat-wall consoles. The proposed tower will facilitate a safe operating environment for aeronautical activity at FAI well into the future and will be built to resist seismic events. The recommended site provides the best available location for visibility of airport traffic control.

Impacts

The proposed structure at Site 1 will require amendment of Instrument Flight Procedures and must be marked with a red obstruction light(s) per advisory circular 70/7460-1M, Obstruction Marking and Lighting. In addition, Site 1 is located in wetlands and 100-year flood plain. The FAA will need to obtain flood plain and wetland permits. Site 1 will also require wetland delineation during the Environmental Assessment/before design and all mitigations will need to be determined. There are no other known impacts in terms of line of sight, future airport development, and local weather phenomena with the potential to impair visibility.

APPROVAL AUTHORITIES

**DANIEL N
PUTERBAUGH**

Digitally signed by DANIEL
N PUTERBAUGH
Date: 2023.08.17 16:01:18
-06'00'

Director of Air Traffic Services, Western Service Area

**THOMAS K
WALDRON**

Digitally signed by
THOMAS K WALDRON
Date: 2023.08.08
08:45:22 -07'00'

Director of Technical Operations, Western Service Area

**RANDALL D
BURKE**

Digitally signed by
RANDALL D BURKE
Date: 2023.08.24
12:43:27 -04'00'

Director of Air Traffic Control Facilities, FAA Headquarters

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1.0 PREFERRED SITES

All quadrants of the airport were explored for pre-site locations. All pre-sites were evaluated against the required siting criteria. Visibility and impacts were assessed and documented to determine which sites were viable sites. Air Traffic representatives selected the following preferred sites based on team discussion and inputs on the advantages and disadvantages of each site: Site 1, Site 5, Site 6, and Site 8. Subsequent to the siting assessment, Site 6 was determined to be non-viable and was removed from consideration as the site is the airport's snow storage area and has a light prism issue. Site 5 and Site 8 were removed from consideration as the current lessee has plans for the sites (i.e., a charter terminal) and has first right of refusal under the lease. Site 1 is the only remaining preferred site.

1.1 Preferred Sites Aerial View



Figure 1. Preferred Site Aerial View

1.2 Site Comparison Chart

Item Description	Site 1		
Recommended Site:	Recommended		
Latitude	64°48'44.0017"N		
Longitude	147°50'33.4357"W		
Cab Floor Level (AGL)	209'		
Cab Floor Level (AMSL)	640'		
Eye-Level (AGL)	214'		
Eye-Level (AMSL)	645'		
Top of Tower (AGL)	244'		
Top of Tower (AMSL)	675'		
Estimated Ground Level (AMSL)	431'		
Maximum Distance (to farthest point on all runways and taxi ways)	7,602'		
2-Point Lateral Discrimination (Deg)	Pass		
Object Discrimination (Pass/Fail) Front View (Dodge Caravan)	Pass		
Object Discrimination (Pass/Fail) Front View (C-172)	Pass		
Line of Sight Angle of Incidence	Pass – 1.57		
ATCT Orientation Direction	NW		
Cab Size	550 sf		
Columns/Mullions	Mullions		
Console Type (traditional, slat wall)	Slat wall		
Land Area	3 acres		
Access to ATCT Site (Yes or No)	Yes		
Tech Ops Preliminary Review Issues	Yes		
TERPS Impacts	Yes		
14 CFR Part 77 Impacts	No		
Environmental Issues	Yes		
ATCT Potential Impacts to Future & Existing Nav aids	No		
Comparative Cost Estimate* (\$100K per vertical foot)	\$20,900,000		
Safety Assessment Initial Risk Ranking	L	M	H
	0	0	0
Safety Assessment Predicted Residual Risk Ranking	L	M	H
	0	0	0

* The comparative cost estimate is not for budgetary purposes; it is for site comparison purposes only.

1.3 Site 1

1.3.1 Description

Site 1 is located approximately 1,000 feet east northeast of and on the same side of the field as the existing ATCT and is oriented to the Local Control (LC) position facing northwest. FAI ATC stated that Site 1 provided an unobstructed view of the airport and a good discriminatory view of all movement areas and most non-movement areas, the approach ends, approach/departure paths and entry/exit points to all runways. No disadvantages were identified.

1.3.2 Site Reference Data

Site 1 is located 64°48'44.0017"N, 147°50'33.4357"W with a cab floor height of 209 feet AGL. Refer to [Paragraph 1.2](#), Site Comparison Chart, for additional site reference data.

1.3.3 Siting Criteria Evaluation

A. TERPS

Per the airspace case, the proposed structure at Site 1 will require amendment of Instrument Flight Procedures as shown below.

- Obstacle impacts the circling areas. ILS OR LOC RWY 2L, RNAV (GPS) Y RWY 2L, ILS Z OR LOC Z RWY 20R, RNAV (GPS) RWY 2R, RNAV (GPS) RWY 20L, VOR or TACAN RWY 20R CIRCLING cMDA CAT A/B/C to raise to 980. HI-ILS Y OR LOC Y RWY 20R circling cMDA CAT C to raise to 980.
- Penetrates the ILS Z or LOC Z RWY 20R LOC Sec 2 (Zone 2) missed approach surface by 21.4 feet; MDA required to raise 40 feet to 920 (New LOC HAT 481).
- Penetrates the RNAV (GPS) RWY 20L LPV Sec 1 straight missed approach surface by 9.83 feet (New LPV HAT 259/DA 693). Penetrates the LNAV/VNAV Sec 1 straight missed approach surface by 135 feet (New LNAV/VNAV HAT 402/DA 836).

Refer to [Appendix F](#) for additional information.

B. 14 CFR Part 77, Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) requirements

The proposed structure at Site 1 must be marked with a red obstruction light(s) per advisory circular 70/7460-1M, Obstruction Marking and Lighting. Refer to [Appendix F](#) for additional information.

C. Impacts to Communications, Navigation and Surveillance Equipment

Site 1 has no impacts to communications, navigation, or surveillance equipment. Refer to [Appendix F](#) for additional information.

D. Visibility Performance Requirements

A visibility siting requirements analysis was conducted using the FAA's human factors tool to address the unobstructed view, object discrimination, and Line of Sight (LOS) angle of incidence requirements. Site 1 passed all analyses and does not require any additional mitigation strategies. Refer to [Appendix H](#) for additional information.

E. Safety Assessment

No hazards were identified for Site 1. The full report is shown in [Appendix K](#).

F. Operational Requirements

1. ATCT Orientation: Northeast
2. Weather: Double shades will be installed if needed to mitigate sun glare. Site 1 may have above normal anticipated fog layer at this height. No other issues were identified.
3. Look-Down Angle: The look-down angle is adequate to see all movement areas of the airport.
4. Look-Up Angle: Look Up LOS in the cab is adequate to see all necessary areas.
5. Look Across LOS: Look Across LOS in the cab is adequate to see all necessary areas.
6. Cab Mullion/Column Orientation: A 12-sided mullion 550 square foot cab structure was presented during the siting.
7. Construction: During construction of the new tower, there will be an issue seeing the crosswind from headings 010-230 for 2 to 3 seconds. FAI Air Traffic Control (ATC) determined, due to the time and area of blockage, ATC awareness and familiarization would suffice, and no further analysis of mitigations would be necessary.
8. Access: Secure access will be provided.
9. Non-Movement Areas: The majority of non-movement areas are visible.
10. Cab Size Evaluation: A space study was conducted in a 550 square foot cab. No issues were identified.
11. Rotating Beacon: The rotating beacon will be shielded if needed.

G. Economic Considerations

Consideration was given to economic factors when evaluating ATCT sites. Refer to [Appendix B](#) for a detailed cost estimate.

H. Environmental

Environmental impacts are unknown as of the date this siting report. Refer to [Appendix G](#) for details of the environmental considerations.

J. Servicing Security Element

Physical security protective measures shall be implemented based on a Facility Security Level (FSL) 2 Critical Infrastructure (CI) site, per FAA Order 1600.69C.

2.0 FINAL SITE RECOMMENDATION

Site 1 is the Final Recommended Site for the replacement ATCT at FAI. The structure at Site 1 has a proposed 550 square foot cab and a floor height of 209 feet AGL. The tower has five authorized positions in the cab.

3.0 CAB SIZE AND ORIENTATION

The cab at Site 1 is a 12-sided 550 square foot cab facing northeast.

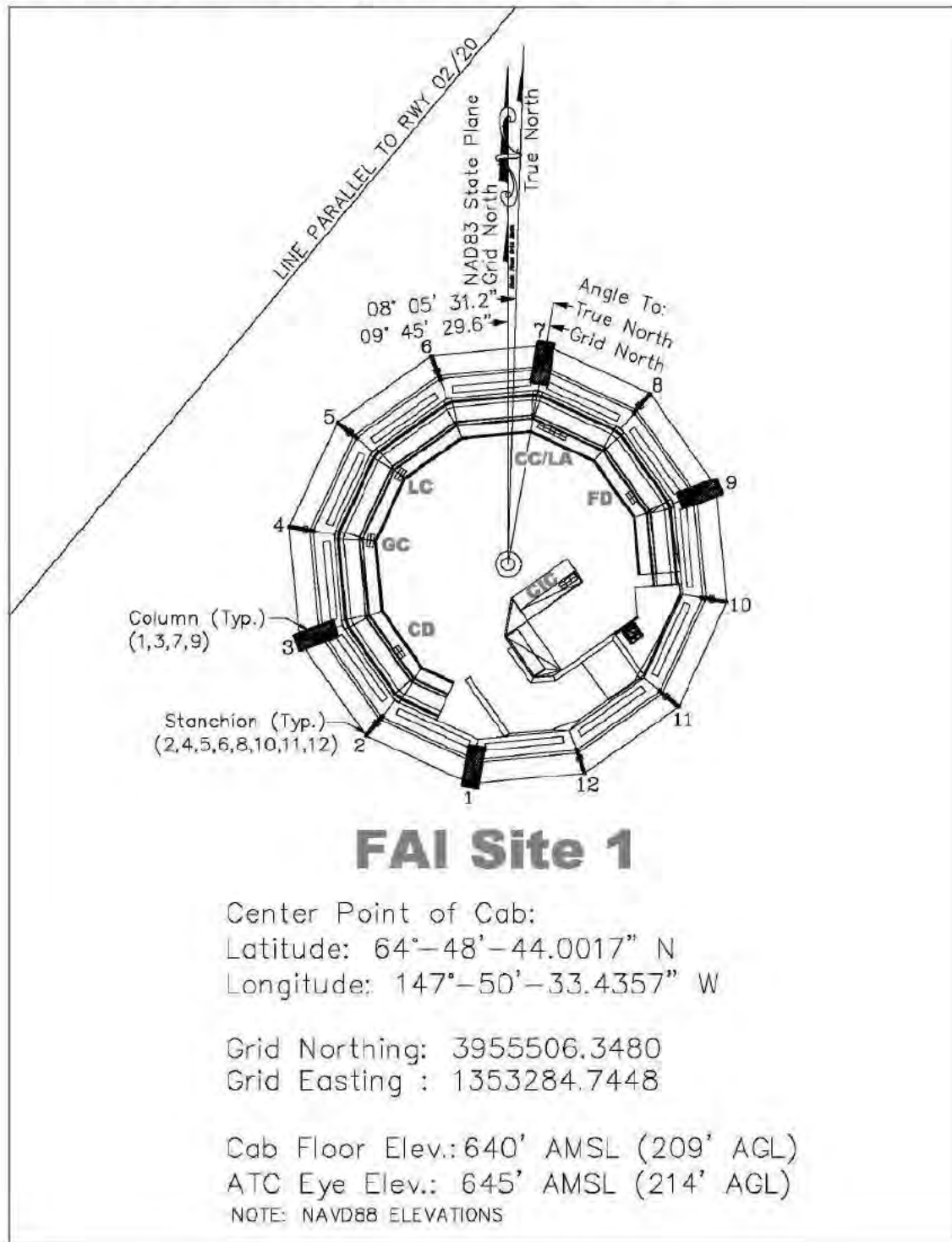


Figure 2. Site 1 Cab Size and Orientation

4.0 SUPPLEMENTAL INFORMATION

[Appendix A – Airport Concurrence Letter](#)

[Appendix B – Cost Estimate](#)

[Appendix C – All Sites Evaluated](#)

[Appendix D – Panoramic Views](#)

[Appendix E – Drawings \(Cab Layout, Airport Layout Plan, Cab Structures, Airport Cable Drawings\)](#)

[Appendix F – Obstruction Evaluations/Airport Airspace Analysis \(OE/AAA\)](#)

[Appendix G – Environmental Documentation](#)

[Appendix H – Human Factors Analysis](#)

[Appendix I – Servicing Security Element](#)

[Appendix J – Other Pertinent Information](#)

[Appendix K – Safety Risk Management Document](#)

[Appendix L – Siting Report Amendments](#)

Appendix A – Airport Concurrence Letter

Refer to the [Knowledge Sharing Network \(KSN\)](#) for the airport concurrence letter.

Appendix B – Cost Estimate

[illegible]

*Does not include costs for plants equipment, electronic equipment and associated installation.

Appendix C – All Sites Evaluated

In addition to Site 1 detailed in [Section 1.0](#), Preferred Sites, the following additional sites were evaluated during the siting assessment.

A. Site 2

- Site 2 is located approximately 3,400 feet northeast of and on the same side of field as the existing ATCT.
- Location: 64°49'02.2865"N, 147°49'58.4393"W
- Orientation: West Northwest
- Weather: Sun tracks were presented
- Initial .8 Look Down eye level 142 feet AGL (Key Point: Approach End Runway (RWY) 2L, Distance: 9,849 feet)
- FAI ATC raised the eye level height to 181 feet AGL which provided an unobstructed view with a major portion of the airport, and a good discriminatory view of the approach ends of all runways and movement areas with particular attention to existing ATCT parallax issues.
- FAI ATC were able to see the fuselage of an aircraft on the small portion of pavement of Taxiway (TWY) C blocked caused by the Fish and Wildlife hangar.
- At this eye level height, the view of approach and departure paths were much improved over those from the existing ATCT. Existing ATCT parallax issues with approaches to the parallel runways were much improved.
- At an eye level of 181 feet, there was no interference with precision approaches.
- FAI ATC did not select Site 2 as a preferred site for further assessment due to the key point distance approach end RWY 2L of 9,849 feet
- Cab structure and control position locations were not presented for Site 2 in the AFTIL-2 procedures.

B. Site 3

- Located approximately 4,400 feet northwest of the existing ATCT on the opposite side of the field and approximately 2,200 feet northeast of the main terminal.
- Location: 64°49'21.0354"N, 147°51'23.8511"W
- Orientation: South Southeast
- Weather: Sun tracks were presented
- Initial .8 Look Down eye level 119 feet AGL (Key Point: Approach End RWY 2L, Distance: 8,583 feet)
- At an eye level height of 90 feet AGL, Site 3 would require changes to precision approaches
- Site 3 was removed as a proposed site.

- Cab structure and control position locations were not presented for Site 3 in the AFTIL-2 procedures.

C. Site 4

- Located approximately 4,700 feet west northwest of the existing ATCT on the opposite side of the field in a land area approximately 850 west of the main terminal.
- Location: 64°49'01.0458"N, 147°52'29.3951"W
- Orientation: Southeast
- Weather: Sun tracks were presented.
- Initial .8 Look Down eye level 110 feet AGL (Key Point: Approach End RWY 2R, Distance: 6,872 feet).
- FAI ATC raised the eye level height to 211 feet AGL which provided an unobstructed view with a major portion of the airport, and a good discriminatory view of the approach ends of all runways and movement areas with special attention to the main terminal, fixed base operator (FBO) Fairbanks and Everitt buildings.
- FAI ATC were able to see the fuselage of an aircraft on the small portion of pavement of TWY A blocked by the Everitt building.
- At this eye level height, the view of approach and departure paths were much improved over those from the existing ATCT. Existing ATCT parallax issues with approaches to the parallel runways were much improved.
- Site 4 was eliminated as a preferable site due to the height necessary to mitigate LOS issues and associated cost.
- Cab structure and control position locations were not presented for Site 4 in the AFTIL-2 procedures.

D. Site 7

- Added as a proposed site by FAI ATC (in an area of proposed FAI Airport Lease Agreement and would need to be reviewed as a possible site).
- Located approximately 4200 feet northwest of the existing ATCT opposite side of field in a grass area approximately 850 feet southwest of the main Terminal and 350 feet southwest of Site 6.
- Location: 64°48'56.0419"N, 147°52'25.5245"W
- Orientation: Southeast
- Weather: Sun tracks were presented.
- Initial .8 Look Down eye level 106 feet AGL (Key Point: Approach End RWY 20R Distance: 7,055 feet).
- FAI ATC raised the eye level height to 136 feet AGL which provided an unobstructed view with a major portion of the airport, and a good discriminatory view of the

approach ends of all runways and movement areas with special attention to the main terminal, FBO Fairbanks and Everitt buildings.

- FAI ATC were able to see the fuselage of an aircraft on the small portion of pavement of TWY A blocked by the Everitt building.
- At this eye level height, the view of approach and departure paths were much improved over those from the existing ATCT. Existing ATCT parallax issues with approaches to the parallel runways were much improved.
- At an eye level height of 136 feet AGL, Site 7 would require changes to precision approaches.
- Site 7 was removed as a proposed site.
- Cab structure and control position locations were not presented for Site 7 in the AFTIL-2 procedures.

Sites 5, 6 and 8 were initially identified as preferred sites. Subsequent to the siting assessment, Site 6 was determined to be non-viable and was removed from consideration as the site is the airport's snow storage area and has a light prism issue. Site 5 and Site 8 were removed from consideration as the current lessee has plans (i.e., a charter terminal) for the sites and have first right of refusal under the lease. Details of each site follow:

Site 5

Description – Site 5 is located approximately 780 feet southwest of the existing ATCT on the same side of the field in a parking lot area northeast of Wright Air Service and is oriented to the LC position facing northwest. The airport noted that there are potential lease issues with this site. FAI ATC found that Site 5 provided an unobstructed view of the airport and a good discriminatory view of all movement areas and most non-movement areas, the approach ends, approach/departure paths and entry/exit points to all runways. No disadvantages were identified.

Site Reference Data – Site 5 is located 64°48'32.6422"N, 147°51'06.2310"W with a cab floor height of 152 feet AGL.

TERPS – The proposed structure at Site 5 will require amendment of Instrument Flight Procedures.

14 CFR Part 77, Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) requirements – The proposed structure at Site 5 must be marked with a red obstruction light(s) per advisory circular 70/7460-1M.

Impacts to Communications, Navigation, and Surveillance Equipment – The Visual Flight Rule (VFR) Transitional Surface for RWY 02R/20L and 01S/19S will be encroached upon. Flight Standards recommends this be considered in the Safety Risk Management discussions.

Visibility Performance Requirements – A visibility siting requirements analysis was conducted using the FAA's human factors tool to address the unobstructed view, object discrimination, and LOS angle of incidence requirements. Site 5 passed all analyses and does not require any additional mitigation strategies.

Safety Assessment – No hazards were identified for Site 5.

Operational Requirements

1. ATCT Orientation: Northeast
2. Weather: Double shades will be installed to mitigate sun glare. Site 5 may have above normal anticipated fog layer at this height. No other issues were identified.
3. Look-Down Angle: The look-down angle is adequate to see all movement areas of the airport.
4. Look-Up Angle: Look Up LOS in the cab is adequate to see all necessary areas.
5. Look Across LOS: Look Across LOS in the cab is adequate to see all necessary areas.
6. Cab Mullion/Column Orientation: A 12-sided mullion/column 550 square foot cab structure was presented during the siting.
7. Construction: During construction of the new tower, there will be an issue seeing the crosswind from headings 010-230 for 2 to 3 seconds. FAI ATC determined, due to the time and area of blockage, ATC awareness and familiarization would suffice, and no further analysis of mitigations would be necessary
8. Access: Secure access will be provided.
9. Non-Movement Areas: The majority of non-movement areas are visible.
10. Cab Size Evaluation: A space study was conducted in a 550 square foot cab. No issues were identified.
11. Rotating Beacon: Rotating beacon will be shielded if needed.

Site 6

Description – Site 6 is located approximately 4,200 feet northwest of the existing ATCT on the opposite side of the field in a ramp area approximately 500 feet southwest of the main Terminal and is oriented to the LC position facing southeast. The site is located on a concrete pad that is currently used for snow storage. FAI ATC found Site 6 provided an unobstructed view of the airport, and a good discriminatory view of the approach ends, movement and non-movement areas, approach/departure paths and entry/exit points to all runways. FAI ATC found that Site 6, located on the opposite side of the field from the existing ATCT, provided a good frontal area of concern field view, especially local patterns. However, it was determined that a south orientation created the following issues that would need to be further analyzed using the Hazard Analysis Worksheet: sun angle, sun glare from snow, terminal lighting. Subsequent to the siting assessment, Site 6 was considered non-viable and was removed from consideration.

Site Reference Data – Site 6 is located 64°48'58.8895"N, 147°52'21.0003"W with a cab floor height of 144 feet AGL.

TERPS – Terminal Instrument Procedures impacts were not analyzed as Site 6 was ultimately determined to be non-viable.

14 CFR Part 77, Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) requirements – 14 CFR Part 77 impacts were not analyzed as Site 6 was ultimately determined to be non-viable.

Impacts to Communications, Navigation and Surveillance Equipment – Communication, navigation and surveillance equipment impacts were not analyzed as Site 6 was ultimately determined to be non-viable.

Visibility Performance Requirements – A visibility siting requirements analysis was conducted using the FAA’s human factors tool to address the unobstructed view, object discrimination, and LOS angle of incidence requirements. Site 6 passed all analyses and does not require any additional mitigation strategies.

Safety Assessment – There are potential hazards due to the sun angle and sun glare from snow and ice crystals forming on terminal lights that create an upward light effect. Lights at the base of the tower and ramp lighting from ice crystals would deflect light upward causing a potential LOS hazard; it may create wall of light when looking out of the tower windows. If Site 6 were selected as the Recommended site, another Safety Risk Management Panel would need to be held to complete the Hazard Analysis Worksheet.

Operational Requirements

1. ATCT Orientation: Northeast
2. Weather: Sun angle and sun glare, and the deflection of artificial lighting from snow and ice crystals may create a potential hazard for LOS.
3. Look-Down Angle: The look-down angle is adequate to see all movement areas of the airport.
4. Look-Up Angle: Look Up LOS in the cab is adequate to see all necessary areas.
5. Look Across LOS: Look Across LOS in the cab is adequate to see all necessary areas.
6. Cab Mullion/Column Orientation: A 12-sided mullion/column 550 sq. ft. cab structure was presented during the siting.
7. Construction: Construction of Site 6 would not obstruct any movement areas.
8. Access: Secure access will be provided.
9. Cab Size Evaluation: A space study was conducted in a 550 sf cab. No issues were identified.

Site 8

Description – Site 8 is located approximately 220 feet southwest of the existing ATCT on the same side of the field in a parking lot area northeast of Air Arctic Service and is oriented to the Local Control East position facing northwest. The airport noted that there are potential lease issues with this site. FAI ATC found that Site 8 provided an unobstructed view of the airport, and a good discriminatory view of all movement areas and most non-movement areas, the

approach ends, approach/departure paths and entry/exit points to all runways. No disadvantages were identified.

Site Reference Data – Site 8 is located 64°48'37.2411"N, 147°50'57.3185"W with a cab floor height of 146 feet AGL.

TERPS – The proposed structure at Site 8 will require amendment of Instrument Flight Procedures.

14 CFR Part 77, Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) requirements – The proposed structure at Site 8 must be marked with a red obstruction light(s) per advisory circular 70/7460-1M.

Impacts to Communications, Navigation and Surveillance Equipment – The VFR Transitional Surface for RWY 02R/20L and 01S/19S will be encroached upon. Flight Standards recommends this be considered in the Safety Risk Management discussions.

Visibility Performance Requirements – A visibility siting requirements analysis was conducted using the FAA's human factors tool to address the unobstructed view, object discrimination, and LOS angle of incidence requirements. Site 8 passed all analyses and does not require any additional mitigation strategies.

Safety Assessment – No hazards were identified for Site 8.

Operational Requirements

1. ATCT Orientation: Northeast
2. Weather: Double shades will be installed to mitigate sun glare. Site 8 may have above normal anticipated fog layer at this height. No other issues were identified.
3. Look-Down Angle: The look-down angle is adequate to see all movement areas of the airport.
4. Look-Up Angle: Look Up LOS in the cab is adequate to see all necessary areas.
5. Look Across LOS: Look Across LOS in the cab is adequate to see all necessary areas.
6. Cab Mullion/Column Orientation: A 12-sided mullion/column 550 sq. ft. cab structure was presented during the siting.
7. Construction: Construction will create minor blockages. FAI ATC determined, due to the time and area of blockage, ATC awareness and familiarization would suffice, and no further analysis of mitigations would be necessary.
8. Access: Secure access will be provided.
9. Non-Movement Areas: The majority of non-movement areas are visible.
10. Cab Size Evaluation: A space study was conducted in a 550 sf cab. No issues were identified.
11. Rotating Beacon: Rotating beacon will be shielded if needed.

Appendix D – Panoramic Views

Refer to the [KSN](#) for a panoramic view of Site 1.

**Appendix E – Drawings (Cab Layout, Airport Layout Plan, Cab Structures,
Airport Cable Drawings)**

Refer to the [KSN](#) for relevant drawings.

Appendix F – Obstruction Evaluations/Airport Airspace Analysis (OE/AAA)

Refer to the [KSN](#) for the final determination letter for Site 1.

Appendix G – Environmental Documentation

Site 1 is located in both wetlands and 100-year flood plain. The parking pad is above the flood elevation; however, the land available outside the flood plain is not large enough to accommodate the facility, surrounding structures, setbacks, etc. or associated construction activities. The FAA will need to obtain flood plain and wetland permits. As such, environmental impacts are unknown at this time. Site 1 will also require wetland delineation during the Environmental Assessment/before design and all mitigations will need to be determined. Because there are no other viable sites available, the FAA has elected to move forward with Site 1.

The airfield opposite of Site 1 has Per- and Polyfluoroalkyl Substances (PFAS) contamination plume in the groundwater, making that side of the airfield less desirable for a new ATCT. Due to the amount of groundwater, dewatering of contaminated groundwater in the alluvial soils would be a significant undertaking and significant cost driver for the project.

Appendix H – Human Factors Analysis

Refer to the [KSN](#) for the human factors analysis.

Appendix I – Servicing Security Element

Physical security protective measures shall be implemented based on a Facility Security Level (FSL) 2 Critical Infrastructure (CI) site, per FAA Order 1600.69C.

Appendix J – Other Pertinent Information

Refer to the [KSN](#) for the Quick Look Evaluation and meeting minutes.

Appendix K – Safety Risk Management Document

Refer to the [KSN](#) for the complete safety analysis.

Appendix L – Siting Report Amendments

Not applicable.

APPENDIX G
FTA NOISE ASSESSMENT

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EA for Proposed ATCT/TRACON Replacement
Appendix G

Fill in yellow fields based on project-specific data

The noise effect felt by the receiver, in dBA

L_{emission}	The noise emission level of equipment from Page 2 at the reference distance of 50 ft, in dBA. Refer to Table 7-1 of FTA 2018 for Construction Equipment Noise Levels. Value retrieved from sum of construction equipment noise levels (refer to Total dBA Calculator).	97.5135	Note: for this parameter, use Page 3 Total dBA Calculator to sum the total noise impact of all construction equipment assumed for use. Assumes all construction equipment operating concurrently as a "worst case scenario."
Adj_{usage}	A usage factor to account for the fraction of time that the equipment is in use over the specified period of time. For a conservative Detailed Assessment, use 1; this assumes 100% usage of equipment at full power operation during the specified time period. For Detailed Analysis, refer to FTA 2018 .	1	
D (distance from noise source)	Distance from the receiver to the piece of equipment, in ft	6000	
G	A constant that accounts for topography and ground effects. Use of 0; this assumes free-field conditions and ignores ground effect. For Detailed Analysis, refer to FTA 2018 .	0	
$L_{\text{eq.equip}}$	The $L_{\text{eq}(t)}$ at a receiver from the summed operation of equipment over a specified time period, in dBA	55.92987	

Notes:

1. Construction equipment assumptions were developed using a representative equipment fleet from a comparable FAA air traffic control tower project and are considered reasonable for evaluating potential construction noise associated with the Proposed Action.

2. Calculation Source: [Federal Transit Authority 2018 Noise and Vibration Impact Assessment Manual](#)

$$L_{\text{eq.equip}} = L_{\text{emission}} + 10 * \text{LOG}(Adj_{\text{usage}}) - 20 * \text{LOG}(D/50) - 10 * G * \text{LOG}(D/50)$$

EA for Proposed ATCT/TRACON Replacement
Appendix G

Total dBA Calculator

Equipment	Quantity	L _{max} 50 (dBA)	Convert dBA to L _{linear}	Sum L _{linear} Values
Excavator	1	85	316227766	316227766
Backhoe	2	80	100000000	200000000
Bulldozer	1	85	316227766	316227766
Skid Steer (assumed same decibel level as Dump Truck)	1	84	251188643.2	251188643.2
Dump Truck	1	84	251188643.2	251188643.2
Crane	1	88	630957344.5	630957344.5
Fleet Truck	14	84	251188643.2	3516641004
Backup Power Gen	1	82	158489319.2	158489319.2
			Sum L _{linear}	5640920486
			Total dBA/L _{emission}	97.51349978

- Notes:
- 1. Decibels are expressed in a logarithmic scale and cannot be added together; must convert to linear scale (antilog), add/subtract, and then reconvert to logarithmic (log).
 - 2. The equipment fleet used for this analysis was selected to represent the principal construction activities associated with the Proposed Action, including demolition of the existing ATCT/TRACON, excavation, utility installation, concrete placement, structural construction, material delivery, and site restoration. Equipment types and quantities were informed by comparable FAA ATCT replacement projects and are considered representative of the construction activities anticipated at Fairbanks International Airport.

APPENDIX H
CONTAMINATED MATERIALS MANAGEMENT PLAN

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Final
Contaminated Materials Management Plan
Airport Traffic Control Tower/
Terminal Radar Approach Control Facility Replacement

Fairbanks International Airport
Fairbanks, Alaska
Contract Number 697DCK-24-P-00082

Prepared for:



Federal Aviation Administration
Air Traffic Organization/Engineering Services Western Service Area
222 West 7th Avenue #14
Anchorage, Alaska 99513

May 2026

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Appendix F	Laboratory Certifications and Standard Operating Procedures
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Appendix H	Reference Documents

ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
AAC	Alaska Administrative Code
ACM	asbestos-containing materials
ADEC	Alaska Department of Environmental Conservation
ADOT&PF	Alaska Department of Transportation and Public Facilities
AFFF	aqueous film-forming foam
AK	Alaska
ANICS	Alaskan National Airspace System Interfacility Communications System
AOC	area of concern
APDES	Alaska Pollutant Discharge Elimination System
AS	Alaska Statute
ATCT	Airport Traffic Control Tower
bgs	below ground surface
BMP	best management practice
BTEX	benzene, toluene, ethylbenzene, and xylenes
C&D	construction and demolition waste
CEPA	Canadian Environmental Protection Act
CFR	Code of Federal Regulations
CGP	Construction General Permit
CMMP	Contaminated Materials Management Plan
CNMTS	Canadian Notification and Movement Tracking System
COC	contaminant of concern
CSP	(Alaska Department of Environmental Conservation) Contaminated Sites Program
DoD	U.S. Department of Defense
DOT	U.S. Department of Transportation
DQCR	Daily Quality Control Report
DQO	data quality objective
DRO	diesel range organics
e.g.	example
ELAP	Environmental Laboratory Accreditation Program
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
FAA	Federal Aviation Administration
FAI	Fairbanks International Airport
FOTS	fiber optic transmission system
GAC	granular activated carbon
GRO	gasoline range organics
HDPE	high-density polyethylene

ACRONYMS AND ABBREVIATIONS (CONTINUED)

HEPA	high-efficiency particulate air
HOT	heating oil tank
IC	institutional control
IDW	investigation-derived waste
KO	(FAA) Contracting Officer
LBP	lead-based paint
LDR	Land Disposal Restriction
LED	light-emitting diode
LHA	Lifetime Health Advisory
LQG	large quantity generator
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
N	north
N/A	not applicable
NESHAP	National Emission Standards for Hazardous Air Pollutants
NiCad	nickel–cadmium
NiMH	nickel–metal hydride
OR	Oregon
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
PFAS	per- and polyfluoroalkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonic acid
PID	photoionization detector
PPE	personal protective equipment
ppm	parts per million
PSN	proper shipping name
PVC	polyvinyl chloride
QA	quality assurance
QAPP	Quality Assurance Project Plan
QEP	qualified environmental professional
QSM	Quality Systems Manual
RACM	regulated asbestos-containing material
RCRA	Resource Conservation and Recovery Act
RRO	residual range organics
SAP	Sampling and Analysis Plan
SDS	safety data sheet
SOP	standard operating procedure
SQG	Small Quantity Generator

ACRONYMS AND ABBREVIATIONS (CONTINUED)

SSHP	Site Safety and Health Plan
SWP	Solid Waste Program
TBD	to be determined
TCLP	toxicity characteristic leaching procedure
TDG	Transportation of Dangerous Goods
TRACON	Terminal Radar Approach Control Facility
TSCA	Toxic Substances Control Act
TSS	total suspended solids
USGS	U.S. Geological Survey
UST	underground storage tank
W	west
WA	Washington
XRF	X-ray fluorescence

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MANAGEMENT ACCEPTANCE

This Contaminated Materials Management Plan (CMMP) has been reviewed and accepted by the following individuals.

Table 1-1 Plan Review and Acceptance Summary

DATE REVIEWED/ UPDATED	NAME OF REVIEWER	POSITION TITLE AND ORGANIZATION

Notes:

For definitions, refer to the Acronyms and Abbreviations section.

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REVISION TRACKER

This CMMP will be reviewed by Federal Aviation Administration (FAA) Air Traffic Organization, Western Service Area Engineering Services at the beginning and at critical project development points. Table 1-2 is a summary of revisions.

Table 1-2 Plan Review and Revision Summary

DATE REVIEWED/ UPDATED	NAME OF REVIEWER	SUMMARY OF REVISIONS, IF ANY

Notes:

For definitions, refer to the Acronyms and Abbreviations section.

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1.0 INTRODUCTION

Overview: *This CMMP is a project-specific plan that identifies the minimum regulatory compliance and worker safety requirements for field screening, segregation, handling, storage, sampling, treatment, transportation, and disposal of contaminated environmental media (contaminated soils and waters regulated by the Alaska Department of Environmental Conservation [ADEC]).*

The CMMP is required when a project is located on or near a contaminated site subject to the cleanup rules in 18 Alaska Administrative Code (AAC) 75, Oil and Other Hazardous Substances Pollution Control. A CMMP may also be required outside of locations subject to the cleanup rules in 18 AAC 75, as directed in project specifications or by the FAA Contracting Officer (KO).

The CMMP is developed in accordance with regulatory compliance requirements found in 18 AAC 60, Solid Waste Management; 18 AAC 62, Hazardous Waste Regulations; 18 AAC 70, Water Quality Standards; 18 AAC 75; 18 AAC 78, Underground Storage Tanks; and 40 Code of Federal Regulations (CFR), Protection of Environment, for all aspects of management of contaminated environmental media, such as soil, sediment, surface water, and/or groundwater.

Additionally, the CMMP must reference accordingly 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response, to include safety requirements for workers conducting work in contaminated areas based on the contaminants known to be present at that location (such as air monitoring in the breathing zone, etc.), through the contractor-developed site-specific health and safety plan.

An onsite copy of the CMMP must be maintained for continuous review and immediate amendment when activities or conditions change.

The following sections will discuss adherence to the codes in the sections that follow. All sections will be completed and text will be added as additional project details and waste streams are identified.

1.1 Discussion

This Contaminated Materials Management Plan (CMMP) has been developed to address management of waste and contaminated media generated from the replacement of the Fairbanks International Airport (FAI) Airport Traffic Control Tower (ATCT) and associated Terminal Radar Approach Control Facility (TRACON). This CMMP does not address the characterization or management of in-situ site contamination or contamination that remains otherwise undisturbed from project activities (e.g., demolition and construction), to include the known subsurface contamination present at the existing ATCT/TRACON. In-situ contamination at the existing and new ATCT/TRACON will be addressed under a follow-up project(s).

The existing ATCT/TRACON occupies approximately 1.5 acres of Alaska Department of Transportation and Public Facilities (ADOT&PF)-owned land. The ATCT, commissioned in 1977, consists of a tower, which is owned and operated by the Federal Aviation Administration (FAA), and a base building, which is owned and operated by ADOT&PF. The proposed new ATCT/TRACON site would occupy approximately 6 acres located approximately 700 feet northeast of the existing facility. The site would include the new ATCT/TRACON and a paved parking lot as well as room for a cleared and filled construction laydown area.

As part of the proposed project, new underground utility lines would be installed to connect the new ATCT/TRACON to water, sewer, gas, electrical, and telephone services along University Avenue South and to the FAA-owned Fiber Optic Transmission System (FOTS) and other communication cables at several locations across FAI. The FOTS consists of fiber optic cables, communications, monitoring, and auxiliary equipment that support critical services and facilities at the airport. During FOTS installation, existing conduits would be used as much as possible to limit the disturbance to undeveloped and vegetated land and airport operations, meet the construction schedule, and reduce costs. Where existing duct bank

cannot be used, new direct-burial high-density polyethylene (HDPE) conduit or concrete-encased Schedule 40 polyvinyl chloride (PVC) conduit would be installed. Trenches measuring 1 to 2 feet wide and up to 3 feet deep would be excavated for the conduit. Utility holes measuring 64 cubic feet would be constructed above vaults for maintenance access. The vaults would primarily be installed with the top not more than 4 feet below grade. A temporary cable system would interconnect the existing and new ATCT/TRACONS to facilitate transition of the systems during the replacement. This system would be disconnected and removed from the network once the transition is complete.

2.0 PROJECT INFORMATION

ITEM	PROJECT INFORMATION
Contract Name:	To be determined
Contract Number:	To be determined
Brief Scope of Work:	Replacement of the FAI ATCT and associated TRACON. The new ATCT/TRACON site would occupy approximately 6 acres approximately 700 feet northeast of the existing facility. The site would include the new ATCT/TRACON and a paved parking lot, as well as room for a cleared and filled construction laydown area. New underground utility lines would be installed to connect the new ATCT/TRACON to water, sewer, gas, electrical, and telephone services along University Avenue South and to the FAA-owned FOTS and other communication cables at several locations across FAI.
Estimated Construction Start Date:	Anticipated to be 2027.

Notes:

For definitions, refer to the Acronyms and Abbreviations section.

2.1 Contractor Information

ITEM	OPERATOR(S)/CONTRACTOR(S) INFORMATION
Company/Contractor Name:	To be determined
Contact Name:	To be determined
Address:	To be determined
City, State, Zip Code:	To be determined
Telephone Number:	To be determined
Fax/Email:	To be determined
Area of Control (if more than one operator at site):	To be determined
ITEM	SUBCONTRACTOR(S) INFORMATION, IF ANY
Company/Subcontractor Name:	To be determined
Contact Name:	To be determined
Address:	To be determined
City, State, Zip Code:	To be determined
Telephone Number:	To be determined
Fax/Email:	To be determined
Area of Control (if more than one operator at site):	To be determined

Notes:

For definitions, refer to the Acronyms and Abbreviations section.

2.2 General Site Information

FAA Facility Name/Project Location:	Proposed ATCT/TRACON Replacement, Fairbanks International Airport		
City, State:	Fairbanks, Alaska	Zip Code:	99709
Borough or Subdivision:	Fairbanks North Star Borough		
LATITUDE:	LONGITUDE:	UNITS	
64°48'38.88"N	147°50'54.77"W	degrees, minutes, seconds	
METHOD FOR DETERMINING LATITUDE/LONGITUDE:			
FAI ATCT and TRACON Investment Analysis Document (FAA 2023)			

Notes:

For definitions, refer to the Acronyms and Abbreviations section.

2.3 Contaminated Materials Management Plan Objectives

Overview: This CMMP has been prepared to:

- Identify demolition and construction activities within the project area that could potentially generate contaminated media and/or waste.
- Establish best management practices (BMPs) and conservation measures to minimize exposure and disturbance of contaminated media.
- Cover procedures for identifying, managing, storing, transporting, and disposing of contaminated media within and generated from the project area, including analytical requirements, sampling and screening methods, sampling frequency, and provisions for characterizing potentially contaminated media.
- Outline the disposal of any contaminated media and/or waste.

The primary objective of this CMMP is to establish comprehensive procedures for identifying, characterizing, handling, storing, transporting, and disposing of waste and contaminated media generated during demolition and construction activities associated with the FAI ATCT/TRACON replacement project. This CMMP provides the framework and operational guidance necessary to ensure compliance with applicable federal and state waste and contaminated media regulations while protecting worker health and safety and preventing environmental impacts.

This CMMP does not address the characterization or management of in-situ site contamination or contamination that remains otherwise undisturbed from project activities (e.g., demolition and construction), to include the known subsurface contamination present at the existing ATCT/TRACON. In-situ contamination at the existing and new ATCT/TRACON will be addressed under a follow-up project(s).

Overview: The contractor shall draft data quality objectives (DQOs) that are applicable to the project and submit them to the FAA and ADEC, as required, for approval prior to completion of the CMMP.

Has the contractor submitted the draft DQOs to the government for approval?

Yes ☐

No ☐

If yes, list the draft DQOs in the discussion section below. If no, indicate below why this requirement is not met.

2.4 Project Personnel Contact Information

Overview: Table 2-2 presents key project personnel. Additional rows will be added as necessary.

Table 2-1 Project Personnel

STAKEHOLDER ¹	CONTACT ¹	CONTACT INFORMATION ¹
FAA Air Traffic Organization, Western Service Area Engineering Services	Jamie Groves	Jamie.L.Groves@faa.gov (907) 841-9235
FAA Air Traffic Organization, Western Service Area Engineering Services	Aemon Wetmore	Aemon.Wetmore@faa.gov (907) 271-2113
FAI Environmental Office	Jake Matter	Jake.Matter@alaska.gov (907) 474-2598
TBD – Prime Contractor (Project Manager)	To be determined.	To be determined.
TBD – Prime Contractor (Health & Safety Manager)	To be determined.	To be determined.
TBD – Prime Contractor (Quality Assurance [QA] Manager)	To be determined.	To be determined.
TBD – Prime Contractor (Qualified Environmental Professional [QEP])	To be determined.	To be determined.
TBD – Subcontractor	To be determined.	To be determined.
TBD – Subcontractor	To be determined.	To be determined.
TBD – Analytical Laboratory (Project Manager)	To be determined.	To be determined.

Notes:

For definitions, refer to the Acronyms and Abbreviations section.

¹ Additional project personnel will be included once contractor(s) have been procured.

2.5 Contractor Responsibilities

Overview: The contractor is responsible for implementing the project CMMP, preparing applicable supporting environmental document(s), providing field oversight for compliance, and ensuring consistent coordination with the FAA KO.

2.5.1.1 Health and Safety Implementation

Overview: The contractor may be responsible for the preparation of a Site Safety and Health Plan (SSHP) and Traffic Control Plan, which provide guidance and procedures to protect the health of personnel involved in the construction activities (to include dust control). The SSHP includes safety guidance to workers involved in construction and characterization activities. The SSHP must include field standard operating procedures (SOPs) to account for unanticipated but potential encounters related to structures; debris; health and environmental hazards such as ACM, LBP, PCB-containing material; underground storage tanks; pipelines or sewer lines; contaminated soil or free product; and groundwater.

Has a SSHP been written in accordance with 29 CFR 1910.120 and 29 CFR 1926.65 for the project?

Yes ☐

No ☐

N/A ☐

The SSHP shall be submitted electronically to the FAA within 60 days of contract award in electronic format (native file and searchable PDF formats).

Has a Traffic Control Plan been prepared for the project?	Yes ☐	No ☐	N/A ☐
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If no or N/A to any of the above, provide a short narrative explaining why these requirements are not met.

The procedures contained herein do not preclude additional site- or project-specific requirements to protect the health and safety of workers. The contractor is responsible for performing due diligence to ensure the safety of their employees. Further discussion regarding health and safety implementation for the project will be included as additional project details are determined.

The contractor should attach the following document(s) to this CMMP:

Health and Safety Plan (Appendix B)	Yes ☐	No ☐	N/A ☐
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Traffic Control Plan (Appendix B)	Yes ☐	No ☐	N/A ☐
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If no or N/A, discuss why the document(s) were not attached to the CMMP.

2.5.1.2 Training Requirements

Overview: *The contractor is responsible for ensuring that employees have levels of skills certification based upon the location and physical attributes of the site, the potential contaminants to be encountered, and the regulatory programs at play. Construction workers at Fairbanks International Airport should have the training required for the type of work they perform.*

The contractor will identify the qualifications or training that would be required of construction workers working at the project site in the discussion section below. The discussion should include (at a minimum) Occupational Safety and Health Administration (OSHA) training requirements, soil or groundwater sampling requirements, handling of hazardous waste (if applicable), and transportation of waste. If this section is N/A to the project, briefly summarize why in the discussion section below.

The contractor is responsible for ensuring all project personnel meet the training requirements necessary for this project. Further discussion regarding training requirements for the project will be included as additional project details are determined.

2.6 Communication Pathways

2.6.1 Project Communication

Overview: *Discuss how communication will be maintained throughout the project duration between the contractor, FAA KO, and the FAI Environmental Office. Include how communication will be managed during the event of a suspected or known leak/spill/release of media not previously identified to the FAA.*

The contractor is responsible for facilitating project communication with the FAA KO, COR, and FAI Environmental Office. Further discussion regarding project communication will be included as additional project details are determined.

2.6.2 Daily Quality Control Report

Overview: *The contractor must generate Daily Quality Control Reports (DQCRs) for fieldwork, providing factual evidence that required quality control activities and/or tests have been performed. These records shall include descriptions of both conforming and deficient work of subcontractors and suppliers as they relate to contaminated media management. The DQCR shall be submitted to the FAA KO for each day that work is performed in the field.*

Overview: Please provide a template DQCR that is applicable to the project work. The template DQCR shall be used throughout the project's duration.			
Does the contractor acknowledge the responsibility of completing DQCRs throughout the project's duration?		Yes ☐	No ☐
Has a quality assurance (QA) officer been identified for the project?		Yes ☐	No ☐
If yes, please provide:			
QA Officer Name:	To be determined.	Contact:	To be determined.
<i>The contractor's QA officer is responsible for conducting scheduled field audits and providing ongoing review, monitoring, and evaluation of the field and laboratory activities; the QA officer will independently validate all laboratory reports.</i>			
<i>If no, provide a short narrative explaining why this requirement is not met.</i>			

The contractor is responsible for the generation of DQCRs. Further discussion regarding the DQCR will be included as additional project details are determined.

<i>The contractor should attach the following document(s) to this CMMP:</i>			
Daily Quality Control Report template (Appendix C)	Yes ☐	No ☐	N/A ☐
<i>If no or N/A, discuss why the document(s) were not attached to the CMMP.</i>			

2.6.3 Project Photographs

Overview: The contractor shall photographically record activities daily and submit photographs electronically. Please provide a photolog template that will include the requirements listed above.		
Does the contractor acknowledge the responsibility of photographically recording activities daily and electronic submittals throughout the project's duration?		No ☐
<i>If no, provide a short narrative explaining why this requirement is not met.</i>		

The contractor is responsible for taking and managing project photographs. Further discussion regarding the project photographs will be included as additional project details are determined.

<i>The contractor should attach the following document(s) to this CMMP:</i>			
Photolog Template (Appendix C)	Yes ☐	No ☐	N/A ☐
<i>If no or N/A, discuss why the document(s) were not attached to the CMMP.</i>			

2.7 Project Area Setting and History

Overview: Include a brief discussion on the project area setting and history. The discussion should include historical and current Fairbanks International Airport operations within the project area. Cite applicable resources as needed and include any references in Section 10.0 and Appendix H.

The project area is to include the 1.5-acre existing ATCT/TRACON demolition footprint and staging area adjacent to the FAI east ramp tiedown area; the 6-acre new ATCT/TRACON construction footprint and staging area/laydown yard on the east side of University Avenue South; and 5 acres (4 linear miles of 10-foot-wide corridor) of utility lines composed of FOTS cable west of Runway 2R/20L; northeast of the FAI float pond; and along University Avenue South. One acre of water, sewer, gas, electrical, and telephone service lines is also included in the corridor along University Avenue South.

The new ATCT/TRACON site was historically used as a paid parking lot for east ramp tenants and a snow dump in winter, but it is no longer used for those purposes and is available for development.

Additional text will be added detailing the project area and site as details are available.

2.7.1 Geology

Overview: Include a brief discussion on the project area geology. The discussion should include soil type(s) and fill material type(s). Cite applicable resources as needed and include any references in Section 10.0 and Appendix H.

A 2024 geotechnical investigation indicated that geology at the new ATCT/TRACON site consists of gravel fill extending from the surface to 2.5 feet below ground surface (bgs) followed by silt and silty sands to approximately 9 feet bgs. The silty soils were underlain by sandy gravel or gravelly sand to the terminus of the geotechnical borings at 51.5 feet bgs and 151.5 feet bgs. Permafrost was observed in both borings from 40 feet bgs to 51.5 feet bgs in the shallower boring and 25 feet bgs to 60.8 feet bgs in the deeper boring (Shannon & Wilson 2024).

A U.S. Geological Survey (USGS) water well is located about 40 feet southeast of Lot 8 in the undeveloped portion of the new ATCT/TRACON site and is used for measuring groundwater elevation for the USGS National Water Information System (FAA 2023).

2.7.2 Groundwater

Overview: Include a brief discussion on the project area hydrology. The discussion should include surface drainage directions, depth to groundwater and groundwater flow direction, and natural features (including any permanent or seasonal surface water bodies). Cite applicable resources as needed and include any references in Section 10.0 and Appendix H.

Groundwater at FAI has been encountered in most drilled boreholes, typically found at depths from about ground surface to 12 feet bgs (FAA 2023). A 2024 geotechnical investigation identified groundwater at depths of 5 feet and 7 feet bgs at the new ATCT/TRACON site (Shannon & Wilson 2024). Groundwater flow ranges seasonally between the northwest and southwest and groundwater depth is influenced by the Chena and Tanana Rivers, which fluctuate seasonally in response to snowmelt and glacial run-off (ADOT&PF 2019b; Claar and Lilly 1997).

A U.S. Geological Survey (USGS) water well is located about 40 feet southeast of Lot 8 in the undeveloped portion of the new ATCT/TRACON site and is used for measuring groundwater elevation for the USGS National Water Information System (FAA 2023).

2.8 Contaminated Sites

Overview: Describe the current status of the contaminated site(s) that the project is located within or adjacent to. Cite applicable resources as needed and include any references in Section 10.0 and Appendix H. Attach any historical data tables or figures showing the extent of contamination for the project area, if necessary, in the appendix.

The project area is identified as a contaminated site that has received a cleanup complete determination with institutional controls (ICs) from the Alaska Department of Environmental Conservation (ADEC) under Hazard ID 24471 “FAA – FIA – Air Traffic Control Tower.” Three Areas of Concern (AOCs) were identified at the ATCT: (1) adjacent underground storage tanks (USTs) 4-A-1 and 4-A-2; (2) the area of a 1999 spill, and (3) the base building fuel tank. The site is subject to soil and groundwater restrictions and subsurface contamination remaining at depth that must be evaluated and addressed if it becomes accessible (ADEC 2024b). The known subsurface contamination is anticipated to be addressed and managed under a follow-up project after demolition of the existing ATCT and has not been included in this CMMP.

As required in the Decision Document issued for contaminated site “FAA – FIA – Air Traffic Control Tower” associated with the existing ATCT (ADEC 2015), monitoring wells are to remain at the existing ATCT site until the institutional controls are removed. It is assumed that monitoring wells are still located at the existing ATCT site. This CMMP does not address the IC requirements for the known subsurface contamination present at the existing ATCT/TRACON. This CMMP assumes that the monitoring wells at the existing ATCT site will be preserved during the demolition of the building and will be managed in any follow up project(s). Waste management procedures will ensure that monitoring wells in place are protected and provided adequate separation distance from site activities

A search of the ADEC Contaminated Sites Database found no active contaminated sites at the new ATCT/TRACON site; however, active and cleanup complete contaminated sites were found within the vicinity of the site (refer to Table 2-1). Additionally, most of FAI is underlain by a groundwater per- and polyfluoroalkyl substances (PFAS) plume, the source of which is presumably past usage of aqueous film-forming foam (AFFF) at airport fire training areas (FAA 2023). The PFAS plume is tracked by the ADEC Contaminated Sites Program (CSP) under Site Name “FIA – Sitewide PFAS.” FAI is conducting an Environmental Mitigation Pilot Project to address PFAS soil and groundwater contamination through innovative technologies, including thermal treatment of soil and hydrothermal alkaline treatment for liquids. The groundwater PFAS plume lies approximately 0.5 miles west of the existing ATCT/TRACON and new ATCT/TRACON site and overlaps with 1,353 feet of the proposed FOTS alignment. The 2018 PFAS Groundwater Characterization report (ADOT&PF 2019a), does not identify any potential PFAS source sites upgradient or cross-gradient of the existing tower or new ATCT/TRACON site; the closest site depicted on the report’s Figure A3 is site “P,” which is 1,000 feet northwest (downgradient) of the new ATCT/TRACON site. Site “P” is the site of multiple aircraft incidents from 2003 to present, where an estimated 75 gallons total of AFFF was used. During the same investigation, a surface water sample (SW112) taken from the slough directly southwest of the new ATCT/TRACON site was less than ADEC PFAS action levels (ADEC 2023).

A search of the ADEC Prevention, Preparedness, and Response Program Spills Database did not reveal any active spills at or in the vicinity of the project (ADEC 2025i).

Will work be conducted with the boundaries of a known ADEC contaminated site?	Yes ☒	No ☐
Are any monitoring wells within or near the project work area?	Yes ☒	No ☐

See above for details of monitoring wells on site.

Table 2-2 Active and Cleanup Complete Contaminated Sites in the Project Vicinity

SITE NAME	HAZARD ID	DESCRIPTION	STATUS
FIA – Sitewide PFAS	25457	PFOS and PFOA exceeding EPA LHA and ADEC cleanup levels in groundwater and surface water samples from various locations throughout FAI property in 2017. Contamination from historical AFFF use in vicinity of Aircraft Rescue and Firefighting building and Firefighter Training Areas. Sitewide groundwater plume.	Active
FAA – FIA – Air Traffic Control Tower ¹	24471	DRO contamination in soil from leaking UST. ICs include: • Advance approval required to transport soil or groundwater offsite. • Movement or use of contaminated material violating water quality standards prohibited. • Excavation prohibited without ADEC-approved work plan. • Groundwater monitoring. • Subsurface contamination must be evaluated and addressed when accessible.	Cleanup Complete – ICs
FAA – FIA – Air Traffic Control Tower USTs 19 and 211	26801	Removal of two 3,000-gallon diesel USTs. Soil excavation performed. Remaining southern sidewall and dispenser lines had DRO contamination.	Cleanup Complete
FIA – Air Arctic (Northern Koyukuk) FKA Frontier Air	24412	Four USTs; soil contamination near one gasoline UST and dispenser island. 2006 removal action. Undelineated soil and groundwater contamination.	Active
FIA – Larry’s Flying Service – Block 100 Lot 12A	25513	Contamination from two USTs. Phase I and Phase II Environmental Site Assessments (ESAs) conducted. Groundwater monitoring in place.	Active
FIA – ERA Aviation, Inc. (#1)	24271	Contamination discovered during removal of three USTs and fuel dispenser island. Removal action performed and air sparge soil vapor extraction unit installed. Groundwater monitoring conducted.	Active
FAA – FIA ANICS	27023	Diesel spill from mounted equipment in 1996. Removal action during cleanup. Contamination remains beneath foundation at depth.	Active
FIA – Civil Air Patrol HOT	4449	Soil contamination discovered during heating oil UST replacement.	Active
Dodson Property	24981	Petroleum release from leaking UST.	Cleanup Complete
FIA – A & A Roofing	25003	Contamination from leaking UST, from source area 77435. Site closure issued.	Cleanup Complete

Table 2-2 Active and Cleanup Complete Contaminated Sites in the Project Vicinity

SITE NAME	HAZARD ID	DESCRIPTION	STATUS
Congdon, Carl J.	24982	Soil contamination from UST. Contaminated soil removed during UST removal, soil was less than ADEC cleanup levels.	Cleanup Complete
FIA – Wright Air Service	24289	Leaking USTs removed in 1991 and 1995. Oxygen releasing compound was added to treat groundwater.	Cleanup Complete
Tanakon Incorporated – UST Facility ID#2577	23339	Petroleum release from leaking UST. Impacted soil was excavated and thermally remediated offsite.	Cleanup Complete
Civil Air Patrol Hangar – FIA	24426	Removal of two 2,000-gallon and one 1,000-gallon USTs. Approximately 30 to 40 cubic yards of contaminated soil excavated, with 30 cubic yards contaminated soil possibly still in place.	Cleanup Complete
FIA – Friendship Air	24154	Multiple USTs (300-gallon to 5,000-gallons) removed in 1989. Groundwater contamination (BTEX) identified. Contamination not practical to excavate.	Cleanup Complete

Notes:

For definitions, refer to the Acronyms and Abbreviations section.

¹ Contaminated site at the existing ATCT/TRACON.

Source: ADEC 2024a-g, 2025a-h.

2.8.1 Contaminants of Concern

Overview: Describe the type, magnitude, and extent of contaminants of concern (COCs) detected in soil and groundwater samples previously collected at the project area, if any. Include the maximum concentrations detected for the COCs of concern in each media (soil, soil gas, groundwater, surface water, etc.) that may be encountered at the site. Cite applicable resources as needed and include any references in Section 10.0 and Appendix H. Attach any historical data tables or figures showing the extent of contamination for the project area if necessary.

There are no documented COCs for the new ATCT/TRACON site at this time.

Documented COCs for the FAA – FIA – ATCT contaminated site at the existing ATCT/TRACON include gasoline range organics (GRO); diesel range organics (DRO); residual range organics (RRO); and benzene, toluene, ethylbenzene, and xylenes (BTEX) in soil media. Petroleum contamination remains at the contaminated site exceeding 18 AAC 75 Method Two Tables B1 and B2 Soil Cleanup Levels for Migration to Groundwater (ADEC 2023). DRO was detected at concentrations between 170 to 9,000 milligrams per kilogram (mg/kg) at the southern bottom of the 1995 UST decommissioning excavation. DRO was also detected following cleanup action from the 1999 fuel spill at a concentration of 620 mg/kg. Both excavation events for the UST decommissioning and fuel spill cleanup action were limited by the existing building's proximity to both releases. Contamination at the base building fuel tank, attached to the existing ATCT, had not been sampled as of 2015. Groundwater monitoring confirmed no exceedances of groundwater cleanup levels (ADEC 2015). The known subsurface contamination is not included in this CMMP and will be addressed and managed in follow-up project(s).

Past use of AFFF at FAI has resulted in widespread PFAS contamination in the groundwater beneath the airport. PFAS impacts to groundwater have affected drinking water wells in areas downgradient of FAI.

Sampling in 2017 indicated presence of perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) greater than the U.S. Environmental Protection Agency (EPA) Lifetime Health Advisory (LHA) limit in a number of wells in the Dale Road neighborhood. FAI continues to investigate drinking water wells at properties in the neighboring areas and is providing alternative water to affected households. As of May 2024, FAI has connected 98 properties to College Utilities Corporation, thereby providing a municipal water source to residents. Due to the widespread presence of PFAS at FAI, PFAS has been identified as a potential COC for the purpose of this CMMP.

2.8.2 Regulatory Requirements

Overview: Discuss whether the project area has any key regulatory requirements that may affect or must be implemented for the purpose of this CMMP. Cite applicable resources as needed and include any references in Section 10.0 and Appendix H.

The FAA – FIA – Air Traffic Control Tower contaminated site is closed and subject to ICs listed in the *FAA Station – Fairbanks International Airport, Alaska Record of Decision* (ADEC 2015). These ICs include requirements to further evaluate soil and contamination once the building and structures at the existing ATCT are removed and/or the soil becomes accessible. Further requirements include an ADEC-approved work plan for excavation and soil disturbance in accordance with 18 AAC 75.325 for transporting soil or groundwater offsite. The known subsurface contamination is not included in this CMMP and will be addressed and managed in follow up project(s).

Because the total land disturbance area is anticipated to be greater than 1 acre, an Alaska Pollutant Discharge Elimination System (APDES) Construction General Permit (CGP) will be required to authorize stormwater discharges from construction-related activities (ADEC 2026). Waste staging areas, to include stockpiles, should be identified and managed in accordance with the project-specific CGP.

It is anticipated that utility installation will include vault excavation (vaults to be installed primarily no more than 4 feet below grade) and utility trench excavation up to 3 feet deep. Given that groundwater at the site is approximately 12 feet bgs, dewatering of groundwater is not anticipated for these shallow excavations. However, foundation construction for the new ATCT/TRACON structure will likely require deep foundational elements such as drilled piers or driven piles extending well below the groundwater table to reach competent bearing strata, necessitating dewatering during foundation installation. Foundation dewatering activities will require an APDES Individual Permit or General Permit for Construction Dewatering to authorize discharge of extracted groundwater.

The new ATCT/TRACON site is anticipated to be located outside and upgradient of the known PFAS plume, and petroleum contamination is only currently documented at adjacent sites and within the subsurface of the existing ATCT/TRACON demolition site. Dewatering effluent from foundation construction at the new site may require characterization prior to discharge to confirm contaminant concentrations and determine if treatment is necessary to meet APDES discharge criteria and surface water quality standards.

Hazardous waste generated during demolition and construction activities will be managed in accordance with U.S. Department of Transportation (DOT) regulations at 49 CFR 173, *General Requirements for Shipments and Packagings*, and 49 CFR 178, *Specifications for Packagings*. FAI is considered a Small Quantity Generator (SQG) of hazardous waste, which limits FAI to a generation rate of 2,200 pounds per month and a total capacity of 13,200 pounds at any one time. An exceedance of this limit requires approval of an episodic generation event. Hazardous wastes will be stored in approved accumulation areas, marked accordingly, and inspected weekly. Proper transport and disposal of hazardous wastes requires documented hazardous waste determinations, proper labeling, signed manifests, and compliance with the most stringent local, state, and federal requirements, including 40 CFR 241, *Solid*

Wastes Used as Fuels or Ingredients in Combustion Units, 40 CFR 243, *Guidelines for the Storage and Collection of Residential, Commercial, and Institutional Solid Waste*, and 40 CFR 258, *Criteria for Municipal Solid Waste Landfills*. All potentially hazardous solid waste streams that are not subject to a specific exclusion or exemption from the hazardous waste regulations (e.g., scrap metal, domestic sewage) or subject to special rules (e.g., lead-acid batteries and precious metals) will be characterized in accordance with the requirements of 40 CFR 261, *Identification and Listing of Hazardous Waste*. Hazardous waste generated at an SQG will be disposed of within 270 days of generation.

Used oil generated onsite will be managed in accordance with 40 CFR 279, *Standards for the Management of Used Oil*. Used oil containing 1,000 parts per million (ppm) of halogenated solvents will be managed as a hazardous waste. All used oil in excess of 55 gallons will be transported by a used oil transporter with an appropriate EPA ID.

Batteries, lamps, mercury-containing equipment, aerosol cans, and pesticides will be managed as universal waste in accordance with 40 CFR 273, *Standards for Universal Waste Management*. Universal waste will be disposed of within 360 days of generation.

Polychlorinated biphenyl (PCB)-contaminated waste, to include non-liquid bulk wastes or debris from the demolition of buildings and other structures manufactured, coated, or serviced with PCBs, where the concentration at designation for disposal was greater than or equal to 50 ppm PCBs, will be managed and disposed of in accordance with 40 CFR 761, *Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions*.

Asbestos-containing waste will be managed and disposed of in accordance with the applicable requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for asbestos at 40 CFR 61 Subpart M and state/local requirements for asbestos-containing material (ACM) disturbance, removal, and disposal activities. NESHAP requirements for proper work practices, handling, containment, and disposal apply to any amount of regulated asbestos-containing material (RACM) that is disturbed. Demolition projects, as defined in 40 CFR 61.141, require Asbestos Notification through completion of NESHAP Notification EPA Form 6500-17 to EPA Region 10 regardless of RACM quantity. The contractor will complete NESHAP filing and follow up as required.

Lead-based paint (LBP) debris will be tested using the toxicity characteristic leaching procedure (TCLP) and evaluated against the toxicity characteristic thresholds at 40 CFR 261.24. If the lead concentration exceeds 5 ppm (the Resource Conservation and Recovery Act [RCRA] threshold for hazardous waste), debris will be managed as RCRA hazardous waste and disposed of accordingly. If the lead concentration does not exceed the RCRA threshold for hazardous waste, but does exceed 400 mg/kg, the material will be managed as polluted soil under 18 AAC 60.025.

Non-hazardous construction and demolition (C&D) waste will be disposed of in landfills permitted to accept such materials under 18 AAC 60. The anticipated landfill is Fairbanks South Cushman Landfill. The actual waste disposal locations may differ from what is included in this CMMP as additional project details and waste stream determinations become available.

3.0 ANTICIPATED WASTE/CONTAMINATED MEDIA

Overview: Complete Table 3-1 with the anticipated contaminated media that is to be generated during the project. Add additional rows and media types as necessary for the project.

Non-RCRA Regulated Solid Waste

Non-regulated solid waste (e.g., inert construction and demolition debris, general site refuse, spent personal protective equipment [PPE]) must be managed in a way to ensure waste will not contribute to pollution. These materials must be free from hazardous substances, food waste, oils, chemicals, or other contaminants that could compromise the recycling process or create health and safety hazards during collection, sorting, and processing operations and must be disposed of at an appropriately permitted landfill or monofill as regulated by 18 AAC 60 prior to the completion of project work.

Recyclables

Clean recyclables (e.g., unpainted scrap metal, plastic containers, cardboard, etc.) should be directed toward recycling facilities or dealers, as practicable.

Hazardous Waste, Universal Waste, and Used Oil

Hazardous waste encompasses materials that exhibit ignitable, corrosive, reactive, or toxic characteristics per 40 CFR 261.21-261.24, or are specifically listed by EPA as hazardous due to their composition or origin. If hazardous waste is generated as part of the project, the contractor will generate such waste under FAI's generator status and EPA ID unless directed otherwise.

Universal wastes represent a streamlined category of commonly generated hazardous materials including batteries, mercury-containing equipment, pesticides, lamps, and aerosol cans that pose lower risk when managed under simplified collection and recycling programs established in 40 CFR 273 to encourage proper handling while reducing regulatory burden on generators.

Used oil includes petroleum-derived or synthetic oils that have become unsuitable for their original purpose through contamination or loss of properties, encompassing engine oils, transmission fluids, hydraulic oils, and metalworking fluids that retain energy value and can be recycled or reprocessed under 40 CFR 279 management standards.

These waste categories require distinct storage, labeling, and disposal approaches based on their environmental risks and recycling potential, with hazardous wastes necessitating the most stringent controls due to their immediate threat to human health and the environment, while universal wastes and used oil benefit from alternative management systems designed to promote collection and beneficial reuse while maintaining protective standards.

TSCA Waste

Toxic Substances Control Act (TSCA)-regulated wastes encompass materials containing PCBs, ACM, and other substances regulated under TSCA, requiring specialized handling and disposal procedures per 40 CFR 761 for PCBs and other applicable federal TSCA regulations.

Contaminated Media

Contaminated media encompass soil, groundwater, sediment, and other environmental matrices impacted by hazardous substances or petroleum products, with regulatory oversight provided through comprehensive frameworks established under 18 AAC 75 and 18 AAC 78. Contaminated media must be managed and disposed of according to 18 AAC 75 and 78 and a CMMP should be developed for projects disturbing media in contaminated sites or other locations as required.

Lead-Based Paint

Residential LBP waste is broadly defined to include paint debris, chips, dust, and sludges generated from abatement, rehabilitation, renovation, and remodeling activities in any housing where people live, including single-family homes, multi-family buildings, apartments, public housing, and federally owned residential facilities such as military housing per 40 CFR 247-258. Residential LBP waste is classified as household hazardous waste and may be disposed of at any permitted Class I or Class II Municipal Solid Waste Landfill.

C&D waste containing LBP from non-residential sources is subject to the toxicity criteria in 40 CFR 261.24, which is demonstrated using the TCLP test. Non-residential LBP waste with a lead TCLP concentration of greater than 5 milligrams per liter (mg/L) must be managed as hazardous waste; LBP waste with a TCLP concentration of less than 5 mg/L is eligible for disposal at a Class I or Class II Municipal Solid Waste Landfill.

Regardless of source, any soil or material contaminated with a total lead concentration exceeding 400 mg/kg is classified as "polluted soil" under 18 AAC 60.900(103)(B) because it contains hazardous substances exceeding the soil cleanup levels established in 18 AAC 75.341 and requires disposal in a lined landfill with leachate collection systems or alternative disposal with ADEC approval.

Construction and Demolition Debris

Non-hazardous C&D waste must be disposed of in landfills permitted to accept such materials under 18 AAC 60. The contractor is responsible for ensuring landfill acceptance and proper disposal in a permitted landfill per 18 AAC 60.010.

One-time disposals of inert C&D waste are available for sites without year-round access to connected road systems of 100 miles or more, or where permitted landfills are more than 100 road miles away. Coordination with the FAA KO is required prior to ADEC application under 18 AAC 60.460.

Table 3-1 Anticipated Waste Streams

STATUS	WASTE STREAM	GENERAL DISPOSAL REGULATION(S) ^{1, 2}	
Expected	Potential	Uncontaminated, Non-Recyclable Construction and Demolition Debris	
☐	☒	Scrap lumber (no LBP, non-creosote treated, non-pressure treated)	18 AAC 60
☐	☒	Drywall, siding, paneling (no LBP or asbestos)	18 AAC 60
☐	☒	Flooring, ceiling tiles, etc. (no LBP or asbestos)	18 AAC 60
☐	☒	Roofing shingles, underlayment, etc. (no asbestos)	18 AAC 60
☐	☒	Insulation	18 AAC 60
☐	☒	Plastic pipes, gutters, fixtures, etc.	18 AAC 60
☐	☒	Concrete, brick, plaster, etc. (no asbestos)	18 AAC 60
☐	☒	Asphalt (non-recyclable, no asbestos or PCBs)	18 AAC 60
☐	☒	Glass (non-recyclable)	18 AAC 60
☐	☒	Tree stumps, logs, brush, other cleared foliage	18 AAC 60
☐	☒	Clean soil or rock	18 AAC 60
☐	☒	Product packaging – paper, plastic, foam, etc.	18 AAC 60
☐	☒	Empty product containers (non-recyclable)	18 AAC 60
☐	☒	Unused latex paint (non-hazardous)	18 AAC 60
☐	☒	Unused, other product (non-hazardous; insert text if applicable)	Insert text.

Table 3-1 Anticipated Waste Streams

STATUS	WASTE STREAM	GENERAL DISPOSAL REGULATION(S) ^{1, 2}	
☐	☐	Other (insert text if applicable)	Insert text.
☐	☐	Other (insert text if applicable)	Insert text.
☐	☐	Other (insert text if applicable)	Insert text.
☐	☐	Other (insert text if applicable)	Insert text.
☐	☐	Other (insert text if applicable)	Insert text.
☐	☐	Other (insert text if applicable)	Insert text.
Expected	Potential	Recyclable/Salvageable Construction and Demolition Materials	
☐	☒	Metal debris – pipes, wires, valves, fittings, trim, etc.	18 AAC 60
☐	☒	Metal sheet goods – siding, roofing, gutters, ducting, etc.	18 AAC 60
☐	☒	Salvaged/re-usable hardware, fixtures, doors, windows, etc.	18 AAC 60
☐	☒	Electronic equipment	40 CFR 273; 18 AAC 62
☐	☒	Electric appliances and motors	40 CFR 273; 18 AAC 60; 18 AAC 62
☐	☒	Corrugated cardboard, paper, and paperboard	18 AAC 60
☐	☐	Aluminum cans	18 AAC 60
☐	☐	Plastic bottles/containers	18 AAC 60
☐	☐	Glass bottles	18 AAC 60
☐	☐	Salvaged asphalt pavement	18 AAC 60
☐	☒	Used oil	40 CFR 279; 18 AAC 62
☐	☒	Used oil filters	40 CFR 279; 18 AAC 62
☐	☐	Other recyclable/re-usable (insert text if applicable)	Insert text.
☐	☐	Other recyclable/re-usable (insert text if applicable)	Insert text.
☐	☐	Other recyclable/re-usable (insert text if applicable)	Insert text.
☐	☐	Other recyclable/re-usable (insert text if applicable)	Insert text.
☐	☐	Other recyclable/re-usable (insert text if applicable)	Insert text.
Expected	Potential	Universal Waste	
		Batteries	
☐	☒	Lead-acid	40 CFR 273; 18 AAC 62
☐	☒	Lithium, nickel–metal hydride (NiMH), or nickel–cadmium (NiCad) rechargeables	40 CFR 273; 18 AAC 62

Table 3-1 Anticipated Waste Streams

STATUS	WASTE STREAM	GENERAL DISPOSAL REGULATION(S) ^{1, 2}	
☐	☒	Alkaline (non-hazardous)	Not federally regulated, check with disposal entity
☐	☐	Other batteries (insert text if applicable)	Insert text.
☐	☐	Other batteries (insert text if applicable)	Insert text.
Expected	Potential	Lamps (Unbroken)	
☐	☒	Fluorescent tubes/bulbs	40 CFR 273; 18 AAC 62
☐	☒	Light-emitting diode (LED) lamps	40 CFR 273; 18 AAC 62
☐	☒	Halogen/Halide lamps	40 CFR 273; 18 AAC 62
☐	☐	Other Lamps (insert text if applicable)	Insert text.
☐	☐	Other Lamps (insert text if applicable)	Insert text.
Expected	Potential	Aerosol Cans (Puncturing Not Allowed)	
☐	☒	Empty or partial (un-needed) spray cans	40 CFR 273; 18 AAC 62
☐	☐	Other aerosols (insert text if applicable)	Insert text.
Expected	Potential	Mercury-Containing Equipment	
☐	☒	Switches, thermostats, or other controls	40 CFR 273; 18 AAC 62
☐	☐	Other mercury equipment (insert text if applicable)	Insert text.
Expected	Potential	Pesticides	
☐	☐	List pesticides	40 CFR 261; 18 AAC 90
Expected	Potential	ACM	
☐	☒	Friable ACM (describe)	40 CFR 61; 18 AAC 60
☐	☒	Non-friable ACM gaskets, packing, etc. (Category I)	40 CFR 61; 18 AAC 60
☐	☒	Non-friable ACM flooring (Category I)	40 CFR 61; 18 AAC 60
☐	☒	Non-friable ACM asphalt roofing (Category I)	40 CFR 61; 18 AAC 60
☐	☒	Non-friable ACM cement board or siding (Category II)	40 CFR 61; 18 AAC 60
☐	☐	Other ACM (insert text if applicable)	Insert text.

Table 3-1 Anticipated Waste Streams

STATUS	WASTE STREAM	GENERAL DISPOSAL REGULATION(S) ^{1, 2}	
☐	☐	Other ACM (insert text if applicable)	Insert text.
☐	☐	Other ACM (insert text if applicable)	Insert text.
Expected	Potential	Lead-Based Paint	
☐	☒	LBP-coated wood (identify if residential or non-residential)	40 CFR 261; 18 AAC 60.025; 18 AAC 62
☐	☒	LBP-coated metal (identify if residential or non-residential)	40 CFR 261; 18 AAC 60.025; 18 AAC 62
☐	☐	Other LBP (describe)	Insert text.
☐	☐	Other LBP (describe)	Insert text.
Expected	Potential	Treated Wood Waste	
☐	☒	Pressure-treated wood	40 CFR 261; 18 AAC 60; 18 AAC 62
☐	☐	Creosote-treated wood	40 CFR 261; 18 AAC 60; 18 AAC 62
☐	☐	Other treated wood (insert text if applicable)	Insert text.
☐	☐	Other treated wood (insert text if applicable)	Insert text.
Expected	Potential	Contaminated Soil	
☐	☒	Petroleum-contaminated soil	40 CFR 261; 18 AAC 62; 18 AAC 75, 78
☐	☐	Other contamination in soil (specify)	Insert text.
☐	☐	Other contamination (insert text if applicable)	Insert text.
☐	☐	Other contamination (insert text if applicable)	Insert text.
Expected	Potential	Contaminated Water and Associated Filter Media	
☐	☒	Contaminated water	40 CFR 261; 18 AAC 62; 18 AAC 72; 18 AAC 75, 78
☐	☐	Oily process or bilge water	40 CFR 261; 18 AAC 62; 18 AAC 72; 18 AAC 75, 78
☐	☒	Contaminated filter media	40 CFR 261; 18 AAC 60; 18 AAC 62; 18 AAC 75, 78

Table 3-1 Anticipated Waste Streams

STATUS	WASTE STREAM	GENERAL DISPOSAL REGULATION(S) ^{1, 2}	
☐	☐	Other contaminated water (describe)	Insert text.
☐	☐	Other contaminated water (describe)	Insert text.
Expected	Potential	Miscellaneous Hazardous or Contaminated Wastes (Testing Likely Required)	
☐	☒	Lead pipes or other lead fixtures	40 CFR 261; 18 AAC 60; 18 AAC 62
☐	☒	Broken/corroded lead-acid batteries	40 CFR 266; 40 CFR 273; 18 AAC 62
☐	☒	Unused oil-based paints	40 CFR 261; 18 AAC 60; 18 AAC 62
☐	☒	PCB-containing equipment	40 CFR 761; 18 AAC 60
☐	☒	PCB-containing paint or caulking	40 CFR 761; 18 AAC 60
☐	☒	Smoke detectors, exit signs (potential radioactive material) ³	10 CFR 31; 10 CFR 32
☐	☒	Spent coolants (test for metals)	40 CFR 261; 18 AAC 60; 18 AAC 62
☐	☒	Refrigerants	40 CFR 82
☐	☐	Out of spec/contaminated fuel	40 CFR 261; 18 AAC 62,
☐	☐	Used oil (non-recyclable)	40 CFR 279; 18 AAC 62
☐	☒	Roofing/sealing tar	40 CFR 261; 18 AAC 60; 18 AAC 62
☐	☒	Used oil absorbents, oily rags, or other oil-contaminated material	40 CFR 261; 40 CFR 279; 18 AAC 60; 18 AAC 62
☐	☒	Solvent-contaminated rags	40 CFR 261; 18 AAC 60; 18 AAC 62
☐	☒	Contaminated PPE	40 CFR 261; 18 AAC 60; 18 AAC 62

Table 3-1 Anticipated Waste Streams

STATUS	WASTE STREAM	GENERAL DISPOSAL REGULATION(S) ^{1, 2}	
☒	☒	Investigation-derived waste (IDW)	40 CFR 261; 18 AAC 60; 18 AAC 62; 18 AAC 75, 78
☐	☐	Fire suppression chemicals (List)	40 CFR 82; 40 CFR 261; 17 AAC 62; 18 AAC 75
☐	☒	Solvents (List)	40 CFR 261; 18 AAC 60; 18 AAC 62
☐	☒	Adhesives, sealants, etc. (List)	40 CFR 261; 18 AAC 60; 18 AAC 62
☐	☐	Other (insert text if applicable)	Insert text.
☐	☐	Other (insert text if applicable)	Insert text.
☐	☐	Other (insert text if applicable)	Insert text.

Notes:

¹ The regulatory citations listed may not be all inclusive. The contractor is required to update these references, as needed, to project-specific information.

² Contaminated environmental media (e.g., soils, groundwater) must adhere to 18 AAC 75, 78.

³ Refer to <https://dec.alaska.gov/eh/solid-waste/how-do-i-dispose-of/radiological-waste/>.

Table 3-2 details the groups of anticipated media to be generated from demolition and construction activities.

Table 3-2 Checklist of Anticipated Contaminated Media

EXPECTED	POTENTIAL	MEDIA TYPE/CONTAMINATION
☐	☒	Soil (PFAS, petroleum, lead, and PCBs)
☐	☒	Groundwater (PFAS, petroleum, lead, and PCBs)
☐	☐	Surface water (describe)
☒	☐	C&D Debris (variable)
☐	☐	Other (describe)
☐	☐	Other (describe)

Notes:

For definitions, refer to the Acronyms and Abbreviations section.

4.0 WASTE MANAGEMENT

Overview: This section presents the approach for management, staging, transport, labeling, tracking, and ultimate disposal of project wastes listed in Section 3.0 of this plan.

4.1 Waste Media Generation

Overview: The contractor must identify the processes that will generate each type of waste (as listed in Section 3.0) onsite. In addition, the contractor must identify if any specialized equipment will be used in the generation of waste.

Overview: Discuss below the processes and equipment used in the generation of each type of waste onsite, as listed in Section 3.0. If variable waste types are present, detail each associated process and any associated equipment.

Demolition and construction activities will likely generate multiple regulated and non-regulated waste streams. ACM waste generation is expected from demolition activities, including floor tiles, mastic, roofing materials, pipe insulation, fireproofing, and joint compound, along with LBP on interior and exterior surfaces.

Universal waste generation is anticipated from the demolition of electronic and communications equipment, to include fluorescent light ballasts (potentially containing PCBs), mercury-containing lamps and switches, and batteries. PCBs may also be found in electrical transformers, capacitors, light ballasts, and caulking compounds. Additional electronic waste from radar systems, communications equipment, computers, and control systems will require proper recycling or disposal in accordance with manufacturer take-back programs or certified electronic waste recyclers.

Additional demolition waste streams anticipated include non-regulated C&D debris such as concrete, masonry, metal framing, wood structural members, drywall, ceiling tiles, roofing materials, windows, and doors suitable for recycling or disposal at permitted C&D landfills. Scrap metal, including steel beams, rebar, conduit, piping, HVAC ductwork, and equipment housings may be segregated for recycling.

Refrigerant-containing equipment such as air conditioning units and refrigeration systems will potentially be generated and must be properly evacuated by certified technicians prior to disposal.

Construction activities, to include site preparation and excavation (e.g., vault excavation, utility trench excavation, and directional drilling beneath the paved runway surfaces), dewatering, and new structure erection, may generate: PFAS-, petroleum-, lead-, and PCB-contaminated soil and groundwater. Investigation-derived waste (IDW) may be generated from soil and water characterization sampling. Other construction-generated waste streams may include: dewatering effluent, general construction debris (e.g., packaging materials and excess building materials), and potentially hazardous materials from construction equipment (e.g., excavators, pickup trucks, and dump trucks) such as waste oils, hydraulic fluids, solvents, and used filters.

Concrete washout water from ready-mix truck cleaning and tool washing may be generated and will require pH adjustment and proper containment to prevent stormwater impacts. Welding and cutting operations may generate metal slag, grinding dust, and spent electrodes. Excess construction materials including unused concrete, mortar, grout, caulking, adhesives, paints, coatings, and sealants will require characterization and disposal based on product SDS and unused quantities. Damaged or rejected building

materials, formwork lumber, reinforcing materials, insulation, and protective coverings will contribute to general C&D waste streams suitable for recycling or landfill disposal.

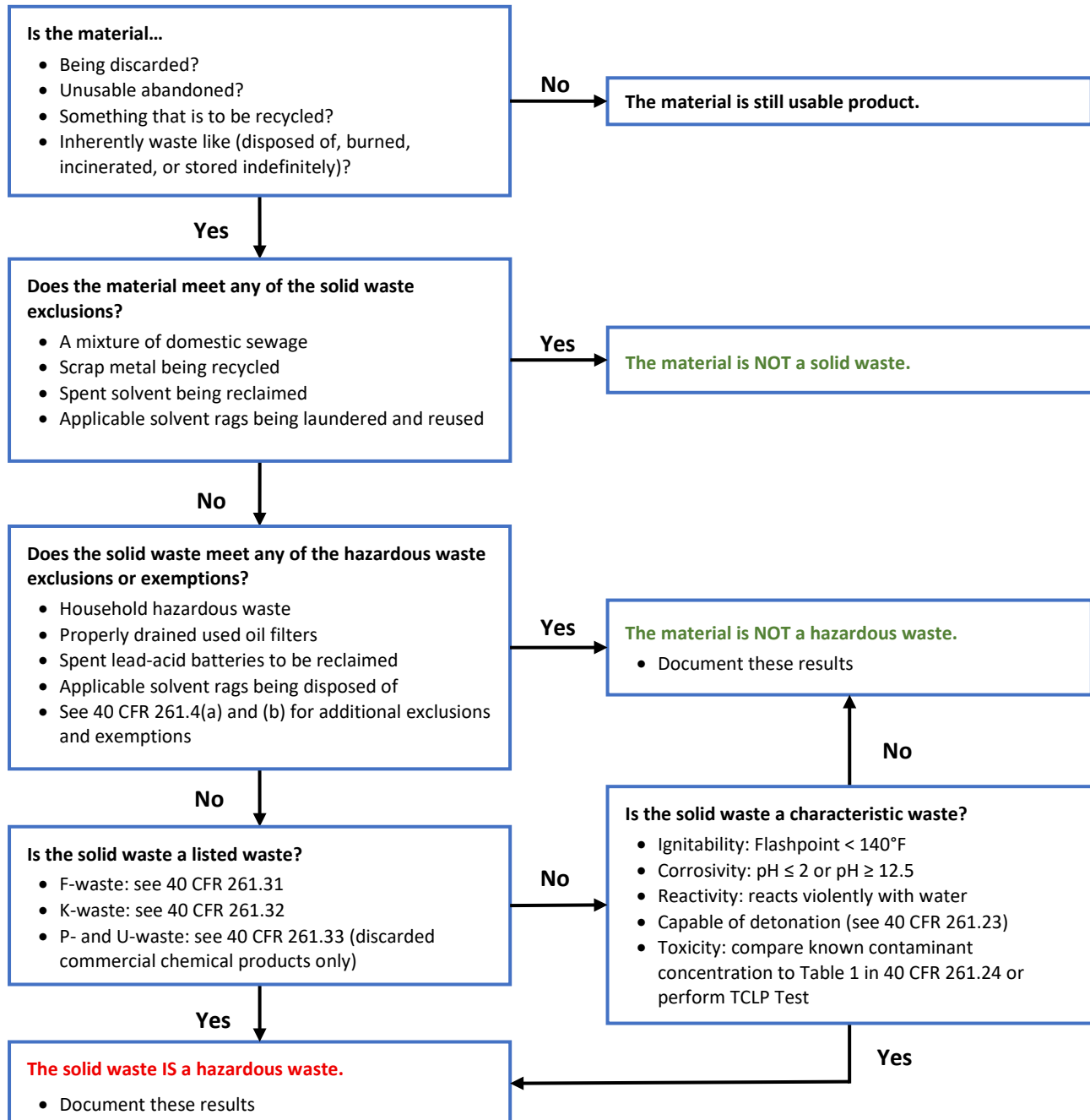
Additional waste streams and associated details, to include estimated quantities, may be added as additional project details and waste determinations are made.

4.2 Waste Determination

Overview: Making accurate waste determinations is required per 40 CFR 262.11. It is the contractor's responsibility to ensure that the waste classification method (e.g., user knowledge, analytical sampling) that is chosen is consistent with the contract specifications.

Maintaining detailed documentation of the determination process is required for regulatory compliance and potential audits. Exhibit 4-1 provides a workflow depiction for hazardous waste determinations.

Exhibit 4-1 Hazardous Waste Determination Flow Chart



4.2.1 Generator Knowledge Determination

Overview: To make a knowledge-based waste determination, the generator must know the source of the waste and/or the process that produced it. Generators must have sufficient information to make an accurate determination based on review of safety data sheets (SDSs), processes involved in the generation of the waste, and/or other available data.		
Will the contractor use generator knowledge determinations for the project?	Yes ☒	No ☐
If yes, for each waste stream, the contractor should describe the generator knowledge supporting the determinations for each waste stream.		

In instances where generator knowledge and SDS review provide sufficient information to make a definitive waste determination, analytical sampling will not be used for waste classification purposes. Generator knowledge will be considered adequate when historical documentation, process information, and SDS availability clearly demonstrate whether a waste exhibits hazardous characteristics or contains listed constituents above regulatory thresholds.

Were the following document(s) attached?			
SDSs (Appendix D)	Yes ☐	No ☐	N/A ☐
If no or N/A, discuss why the document(s) were not attached.			

Additional text will be included as generator knowledge-based waste stream determinations are made for this project.

4.2.2 Laboratory Analysis Determination

Overview: Sampling of waste and subsequent laboratory analysis may be required. This process involves collecting representative samples, selecting appropriate analytical methods, and interpreting analytical results. Laboratory analysis requires careful attention to proper sampling protocols, chain-of-custody procedures, quality assurance/quality control measures, and documentation requirements.			
For contaminated soils and waters regulated by ADEC (referenced in this CMMP as “contaminated media”), if the nature of the contamination has been sufficiently determined through a site characterization, CSP may approve of direct hauling of excavated contaminated soil without additional sampling and analysis. If the nature and degree of contamination have not been determined, analytical sampling to make accurate waste determinations is required.			
An FAA-approved project Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP) are required prior to collection of samples. Prior to development of the SAP and QAPP, consultation with the FAA KO and ADEC Field Sampling Guidance (ADEC 2024h) (as applicable) are essential to determine applicable test methods, proper sample containers, sampling methodology, sample volume requirements, representative sampling procedures, laboratory data quality requirements, and sample logistics.			
Containers of potentially hazardous waste that are pending analytical results must be clearly marked with:			
• The words “Hazardous Waste – Pending Analysis” • Sample identification number • Date sampled • Known or suspected hazards associated with the waste • Generator contact information			
Has the contractor consulted with the FAA KO for assistance with laboratory analysis and waste characterization?	Yes ☐	No ☐	
Are waste sampling and laboratory analysis planned for this project?	Yes ☒	No ☐	N/A ☐

If no or N/A, provide a short narrative explaining why sampling and laboratory analysis are not planned and/or the KO has not been consulted.

If yes, identify the intended laboratory for the project.

Laboratory Name:	To be determined.	City, State:	To be determined.
Is the laboratory accredited by the U.S. Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)?	Yes ☐	No ☐	N/A ☐
Is the laboratory approved by the State of Alaska under the CSP? https://dec.alaska.gov/spar/csp/lab-approval/list-of-approved-labs/	Yes ☐	No ☐	N/A ☐
Are analytical results anticipated to be necessary prior to the commencement of work?	Yes ☒	No ☐	N/A ☐
Are analytical results anticipated to be necessary during construction (for example, for dewatering activities or other project needs)?	Yes ☒	No ☐	N/A ☐
Is laboratory sampling for characteristic hazardous waste determinations anticipated?	Yes ☒	No ☐	N/A ☐

Prior to and during demolition and construction activities, waste stream characterization sampling may be required to determine proper handling, transportation, and disposal requirements. Pre-demolition surveys for ACM and LBP will guide much of the waste characterization during the demolition phase.

Excavated soils may be analyzed for PFAS compounds, petroleum hydrocarbons, and other potential COCs, if contamination is suspected based on site conditions or visual/olfactory indication, to determine if excavated materials exceed ADEC cleanup levels and to determine acceptable disposal facilities in accordance with Appendix F of the ADEC Field Sampling Guidance (2024h). This CMMP does not address the characterization of in-situ site contamination or contamination that remains otherwise undisturbed from project activities (e.g., demolition and construction), to include the known subsurface contamination present at the existing ATCT/TRACON. In-situ contamination at the existing and new ATCT/TRACON will be addressed under a follow up project(s).

Dewatering effluent will require analytical testing against APDES permit limits and receiving facility requirements prior to on-site discharge or off-site transport. APDES permit limits will be determined upon the issuance of a Dewatering Permit.

Analytical methods, sampling frequencies, and quality assurance/quality control procedures will follow EPA-approved protocols and ADEC requirements to ensure defensible data is generated for waste profiling and regulatory compliance documentation.

Additional text describing the samples that are proposed to be collected for each waste stream will be included as additional site information is available and specific waste streams are identified. Additional details summarizing the SAP and QAPP will be included as those plans are developed.

<i>The contractor should attach the following document(s) to this CMMP:</i>			
Project SAP and QAPP (Appendix E)	Yes ☐	No ☐	N/A ☐
Current laboratory certifications and SOPs (Appendix F)	Yes ☐	No ☐	N/A ☐
<i>If no, but analytical sampling is required, discuss why the document(s) were not attached to the CMMP.</i>			

4.3 Hazardous Waste

Overview: Hazardous waste is any material that meets the definition of a solid waste and exhibits a hazardous characteristic (ignitability, corrosivity, reactivity, or toxicity) as identified in 40 CFR 261, Subpart C, or contains a listed hazardous waste as identified in 40 CFR 261, Subpart D. Hazardous waste generated within the confines of government facilities is identified as being generated by the government. If the contractor generates hazardous waste in the execution of this project, the contractor must demonstrate how they will meet the regulatory requirements of the generator designation for any work conducted within the boundaries of the Installation. The contractor must demonstrate compliance with the provisions of federal, state, and local regulatory requirements applicable to the Installation and the Installation's generator status associated with their RCRA Site ID. The contractor must also comply with all training and storage, handling, the pre-transport, transboundary shipment notifications, preparedness and prevention, episodic event notification and requirements, and disposal of construction-derived wastes.			
Will hazardous waste be generated as part of this project?	Yes ☐	No ☐	Unknown ☐
If yes, include the EPA ID of the FAA Installation:	FAI is considered an SQG (RCRA ID AKR000207449)		
If unknown, add brief description of what is known at the time of development of this plan. Limit to one or two sentences:	Insert text.		

Overview: Hazardous waste generated by the contractor at an SQG must be coordinated in advance with the FAA KO and the Installation to determine if the allowable thresholds for hazardous waste will be exceeded during the project. The contractor is required to provide an accounting report of expected hazardous wastes and associated quantities prior to generation. If hazardous waste thresholds are likely to be exceeded, if the project is scheduled to last less than 60 days, and/or if the Installation has not already exceeded their limit of episodic filing events, the contractor must coordinate with the FAA KO and the Installation to receive Episodic Generation Event Approval with EPA.			
FAI generator status:	SQG		
Will the generation of hazardous waste remain within the limits of the current generator status of the Installation?	Yes ☐	No ☒	N/A ☐
Will an episodic generation be required by the project?	Yes ☒	No ☐	N/A ☐
If yes, discuss episodic generation and coordination.			

Demolition and construction activities are not anticipated to generate hazardous waste volumes in the exceedance of allowable hazardous waste generation under the facility's SQG status, however in the case that SQG quantities are exceeded, the facility will provide notification to EPA Region 10 for an episodic generation event.

An episodic event, which allows SQGs to generate up to 1,000 kg of hazardous waste per calendar month for up to two events per year without changing generator status, if necessary, will be planned and documented with start and end dates, waste stream descriptions, and anticipated quantities. Notification to EPA Region 10 will occur no later than 30 days prior to initiating the episodic event, and all episodic hazardous waste must be managed in accordance with Large Quantity Generator (LQG) standards during the event.

Additional text describing the hazardous waste streams anticipated will be detailed as additional project information is available and specific waste streams are identified.

Were the following document(s) attached?			
Episodic Generation Request (Attachment G)	Yes ☐	No ☐	N/A ☐
If no or N/A, discuss why the document(s) were not attached.			

4.4 Best Management Practices

Overview: Include a discussion on best management practices to be implemented throughout the project for all contaminated media, including soil and water. If this section is N/A to the project, briefly summarize why in the discussion section below.

BMPs for waste generated during demolition and construction activities will focus on waste minimization, proper segregation, and pollution prevention. Waste minimization strategies will include accurate quantity estimation during project planning, material reuse where feasible, recycling of metals and clean construction debris, and proper sizing of waste containers to avoid overfilling or underutilization. Segregation of waste streams at the point of generation will prevent cross-contamination and ensure that non-hazardous materials are not unnecessarily managed as hazardous or special waste, with separate accumulation areas established for ACM, LBP debris, universal waste, PCB materials, general C&D debris, recyclables, and regulated hazardous wastes. Secondary containment will be provided for all liquid waste storage to prevent releases to soil or stormwater systems. Spill prevention measures will include designated refueling areas with spill kits, drip pans under stationary equipment, absorbent materials readily available at work areas, and immediate cleanup protocols for any releases. Regular inspections of waste accumulation areas, storage containers, and work zones will be conducted to identify potential issues, verify proper labeling and containment, ensure compliance with accumulation time limits, and confirm that housekeeping practices are being followed. All personnel involved in waste-generating activities will receive training appropriate to their roles, including hazard communication, waste characterization procedures, proper handling and storage requirements, spill response, and regulatory obligations. The contractors and subcontractors will be required to demonstrate knowledge of applicable waste management requirements prior to beginning work, with periodic oversight and compliance verification conducted throughout demolition and construction activities. Documentation of waste generation, characterization decisions, storage practices, and disposal activities will be maintained throughout the project to support regulatory compliance verification and provide records for future reference.

4.5 Waste Handling Equipment

Overview: Discuss the anticipated waste handling equipment, materials, and supplies that will be required for the project.

Waste handling equipment, materials, and supplies anticipated for demolition and construction activities will vary based on waste stream characteristics and regulatory requirements. Demolition of the existing tower and base building will require equipment for handling ACM and LBP, including high-efficiency particulate air (HEPA)-filtered vacuums, containment barriers, poly sheeting, negative air machines, and sealed waste containers or bags. Universal waste collection will require segregated containers or pallets for fluorescent lamps, ballasts, batteries, and electronic equipment.

Heavy equipment, including excavators, backhoes, loaders, and haul trucks, will be used for building demolition, foundation removal, and general C&D debris handling. Construction activities, including site preparation, vault excavation, utility trench excavation, and directional drilling beneath paved runway surfaces, will require earthmoving equipment, to include excavators, trackhoes, front-end loaders, and

dump trucks that may contact potentially contaminated soil and groundwater and require decontamination (Section 6.0).

Dewatering equipment may include submersible pumps, hoses, temporary piping, and storage tanks or frac tanks. Waste containerization will utilize DOT-approved drums, roll-off containers, super sacks, or lined bins appropriately sized for different waste streams. Spill response materials including absorbent pads, booms, granular absorbents, and spill kits will be maintained at active work areas. PPE appropriate for handling asbestos, lead, PCBs, and potentially contaminated media will be provided to workers based on health and safety plan requirements.

Additional waste handling equipment may be added as additional project information is available and specific waste streams are identified.

4.6 Waste Storage and Labeling

Overview: *The contractor must manage and store wastes in accordance with approved plans and applicable regulations. Below is a general summary of waste categories. It may not be inclusive of all waste categories for every project; the contractor should expand these categories as needed within the discussions below.*

Non-RCRA Regulated Solid Waste

Non-hazardous wastes must be stored in structurally sound containers appropriate for the waste type and environmental conditions in accordance with 18 AAC 60.010(a). Solid waste containers shall use covers, fencing, or other department-approved storage methods to prevent wind and animals from scattering waste and be positioned to prevent vector attraction and unauthorized access per 18 AAC 60.230, Disease Vector, Wildlife, and Domestic Animal Control. Containers must be clearly labeled with waste type, generation date, and generator identification. Storage areas require adequate drainage to prevent pooling of precipitation and prevent or control run-off that would violate water quality standards under 18 AAC 70. Storage sites must be located at least 100 feet from any waterbody or water well per 18 AAC 60.040(b).

Recyclables

Materials destined for recycling must be stored in designated containers that prevent contamination and maintain material integrity under 18 AAC 60.010 Accumulation, Storage, and Treatment Requirements. Containers shall be clearly marked indicating recyclable content type and collection schedule. Storage areas require covers, fencing, or other department-approved methods to prevent wind and animals from scattering materials, protection from weather degradation, and positioning to facilitate collection vehicle access while maintaining operational safety. Recyclable material storage must comply with the same setback requirements of at least 100 feet from waterbodies or wells per 18 AAC 60.040(b).

Hazardous Waste, Universal Waste, and Used Oil

Hazardous wastes must be stored in approved containers in accordance with 49 CFR 173 and 49 CFR 178. Storage timelines and quantities are dictated by generator status and should be identified within this Plan. If the generator limits on quantities of allowable hazardous waste are to be exceeded, coordination with the FAA KO is required. Hazardous wastes are to be accumulated at satellite accumulation points in compliance with 40 CFR 262.34.

Hazardous waste must also be inspected at a frequency according to generator status, must have adequate aisle space, emergency equipment (e.g., fire extinguishers and spill response resources), maintain a minimum 50-foot buffer from the property lines, have proper ventilation, be secured against unauthorized entry, and have proper onsite communication systems.

Universal wastes (batteries, lamps, electronic devices, pesticides) must be stored in containers that prevent releases to the environment and are compatible with the waste contents in accordance with 40 CFR 273 (federal regulations applicable in Alaska). Universal waste containers shall be marked with the words "Universal Waste" followed by the specific waste type and accumulation start date. Large quantity handlers accumulating 5,000 kilograms or more total of universal waste must comply with enhanced storage and management

requirements. Storage areas must provide protection from weather, maintain structural integrity of containers, and comply with applicable accumulation time limits. Used oil storage must comply with applicable federal regulations and maintain appropriate secondary containment systems.

TSCA Waste

TSCA-regulated wastes (PCBs, ACM) must be stored in leak-proof containers that are clearly labeled with the specific TSCA waste type, date of removal or generation, and appropriate hazard warnings in accordance with 40 CFR 761 for PCBs and applicable TSCA regulations. Storage areas shall provide protection from weather, prevent unauthorized access through appropriate security measures, and maintain adequate inspection protocols. Containers must be positioned on impermeable surfaces with appropriate containment to prevent releases to the environment and comply with applicable storage time limitations under TSCA regulations.

Contaminated Media

Contaminated soil, sediment, and other media must be stored in appropriate containers or covered stockpiles that prevent dispersion of contaminants and protect against weather infiltration. Storage areas require clear identification of contamination type, concentration levels where known, and anticipated disposal or treatment methods. Containers shall be positioned to prevent run-off that would violate 18 AAC 70 Water Quality Standards and maintain minimum setbacks from water bodies and wells per 18 AAC 60.040(b). Storage must include appropriate dust control measures and access restrictions to prevent unauthorized contact with contaminated materials.

Stockpiles of media may fall into various categories of waste and should be managed accordingly. Detailed stockpile management should be addressed within the CMMP.

Lead-Based Paint

LBP waste must be stored in sealed containers that prevent dust generation and are clearly marked with lead hazard warnings and generation dates. Storage areas shall provide protection from weather, maintain appropriate security against unauthorized access, and comply with EPA Renovation, Repair and Painting Rule requirements for lead-safe work practices. Containers must be positioned on stable surfaces with appropriate containment measures and maintain adequate separation from areas accessible to children or pregnant women. Storage duration should be minimized pending proper disposal at authorized facilities capable of managing lead-contaminated waste.

Construction and Demolition Debris

C&D debris must be stored in approved roll-off containers or designated areas with appropriate containment measures in accordance with 18 AAC 60.010 Accumulation, Storage, and Treatment. Storage areas shall use covers, fencing, or department-approved methods to prevent windblown debris and control litter to prevent violations of Alaska Statute (AS) 46.06.080. Containers must be positioned on stable surfaces capable of supporting loaded container weight and secured against unauthorized dumping. Storage must be located at least 100 feet from water bodies or wells per 18 AAC 60.040(b) and managed to prevent run-off violations of 18 AAC 70 Water Quality Standards. Segregation of potentially hazardous C&D materials (asbestos, lead paint) from clean debris is required to prevent cross-contamination.

All wastes must be stored in a manner that does not contribute to pollution. Discuss the BMPs required for all proper storage of all wastes.

Will dumpster(s) and other bin(s) remain closed when not in use?	Yes ☒ ☐	No ☐	N/A ☐
Will proper UDOT-approved containers be used for waste streams? <i>Describe containers to be used.</i>	Yes ☒ ☐	No ☐	N/A ☐
Will waste be inspected as required? <i>Describe inspection frequency and parameters demonstrating conformance.</i>	Yes ☒ ☐	No ☐	N/A ☐
Will liquid waste be staged on secondary containment? <i>Describe secondary containment systems.</i>	Yes ☒ ☐	No ☐	N/A ☐

Will hazardous wastes be segregated from other wastes? <i>Describe segregation processes.</i>	Yes ☒	No ☐	N/A ☐
Will waste be properly labeled for storage and transport? <i>A generic non-hazardous label example can be found below.</i>	Yes ☒ ☐	No ☐	N/A ☐
<i>Describe below the details for waste storage and labeling for each waste stream and/or waste category with consideration to the above questions and also to include storage considerations, containers, locations, segregation, labels, covers, security, inspection frequency, etc.</i>			

All waste generated during demolition and construction activities will be stored in structurally sound, DOT-approved containers appropriate for the waste type and environmental conditions. Non-hazardous solid waste and C&D debris will be stored in approved roll-off containers or designated areas with covers, fencing, or other approved methods to prevent wind dispersal, vector attraction, and unauthorized access. Containers will be clearly labeled with waste type, generation date, and generator identification. Recyclable materials will be stored in designated containers that prevent contamination and maintain material integrity, clearly marked with recyclable content type and positioned to facilitate collection vehicle access.

Hazardous waste will be stored in approved containers at satellite accumulation areas, with containers marked with the words "Hazardous Waste," applicable hazard warnings, accumulation start date, and waste description. Universal waste containers will be marked with "Universal Waste" followed by the specific waste type (batteries, lamps, ballasts, electronic devices) and accumulation start date.

TSCA-regulated wastes, including PCB-containing materials and ACM, will be stored in leak-proof containers clearly labeled with the specific TSCA waste type, date of removal or generation, and appropriate hazard warnings. LBP waste will be stored in sealed containers marked with lead hazard warnings and generation dates to prevent dust generation and unauthorized access.

Contaminated soil and media will be stored in appropriate containers or covered stockpiles clearly identified with contamination type, concentration levels where known, and anticipated disposal methods (Section 5.2.3). All liquid wastes including dewatering effluent, waste oils, and hydraulic fluids will be staged on secondary containment systems to prevent releases to soil or stormwater (Section 5.3).

Storage areas will maintain adequate aisle space for inspections, provide emergency equipment including fire extinguishers and spill response materials, and be secured against unauthorized entry. All waste storage locations will be positioned at least 100 feet from waterbodies or monitoring wells (see Figure 1-2) and managed to prevent run-off that would violate water quality standards. Waste segregation will be maintained throughout storage to prevent cross-contamination between regulated and non-regulated media and between different waste classifications. Containers will remain closed when not actively receiving waste, be positioned on stable surfaces capable of supporting loaded weight, and provide adequate drainage to prevent pooling of precipitation. Inspections of waste storage areas will be conducted at frequencies appropriate to generator status and waste type to verify container integrity, proper labeling, compliance with accumulation time limits, and adequate spill prevention measures. Storage duration will be minimized for all waste streams pending transportation to authorized disposal or recycling facilities.

Additional waste handling equipment may be added as additional project information is available and specific waste streams are identified

NON-REGULATED WASTE LABEL	
INFORMATION	DESCRIPTION
Waste Type:	
Container Number:	
Project Name:	
FAA Project Manager and Contact Number:	
Generation Date:	
Estimated Container Weight:	

Notes:

For definitions, refer to the Acronyms and Abbreviations section.

4.7 Waste Transport, Tracking, Shipping, and Disposal

Overview: Transport of waste and required shipping documentation should follow applicable state and federal requirements. The contractor must verify that the selected transporters and disposal facilities have the necessary permits and licenses to operate and accept waste. The below provides a summarized generalization of waste categories. It may not be inclusive of all waste categories for every project; the contractor should expand these categories as needed within the discussions below.

Non-RCRA Regulated Solid Waste

Non-RCRA regulated solid waste transport must comply with general solid waste transportation requirements under 18 AAC 60.015, with generators maintaining records of waste quantities, destinations, and transporter information for disposal at permitted facilities. Transporters must ensure proper containerization to prevent spillage during transit, maintain vehicle placarding when required, and deliver waste only to facilities authorized to accept the specific waste type under Alaska solid waste permits. DOT regulations under 49 CFR may apply for certain non-hazardous materials based on quantity and packaging requirements.

Recyclables

Clean recyclable materials transport follows general transportation safety requirements with minimal regulatory oversight, requiring secure loading to prevent spillage and appropriate vehicle placarding for large quantities under DOT regulations. Generators should maintain basic records of recyclable quantities and destinations to demonstrate waste diversion efforts, while transporters must deliver materials to legitimate recycling facilities that can properly process the specific material types. Alaska regulations under 18 AAC 60 encourage recycling activities while requiring that contaminated recyclables be managed as solid waste when they cannot be beneficially reused.

Hazardous Waste, Universal Waste, and Used Oil

Hazardous waste shipping requires EPA identification numbers, uniform hazardous waste manifests per 40 CFR 262.20 and DOT placarding and packaging per 49 CFR 100-185.

As the state lacks permitted hazardous waste disposal capacity, Alaska generators must coordinate with authorized transporters and approved out-of-state disposal facilities. Canadian transport routes are often necessary for hazardous waste shipments to Lower 48 disposal facilities, requiring coordination with Canada and compliance with provincial transit requirements even for materials remaining under U.S. jurisdiction throughout transport. Canada regulates hazardous waste transport through the Cross-Border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations and Transportation of Dangerous Goods (TDG) Regulations, which establishes requirements that align with international standards but may have distinct differences from DOT regulations, particularly in driver certification, placarding systems, and shipping documentation requirements.

The Canadian Environmental Protection Act (CEPA) and provincial environmental regulations govern transboundary movement of hazardous waste through Canada, requiring prior notification and consent for

imports and exports through Environment and Climate Change Canada. Drivers must hold valid TDG training certificates for dangerous goods transport, if hazardous waste is classified as a dangerous good; vehicles may require placards and safety marks that may differ from U.S. standards; all shipments require advance notification through the Canadian Notification and Movement Tracking System (CNMTS); shipments are required to have appropriate shipping papers to include unique reference numbers; provincial authorities must be notified and additional requirements or routing restrictions may be imposed; transit operations may require liability insurance coverage to address potential environmental releases or accidents during Canadian transit; and completion of transit must be confirmed through the CNMTS system with documentation showing the waste has successfully exited Canada.

Universal waste transport follows streamlined requirements per 40 CFR 273.50-273.56 with basic shipping papers, package markings indicating "Universal Waste," and 1-year accumulation limits.

Used oil transport requires DOT compliances and shipping records per 40 CFR 279.40-279.46. Used oil transporters must have EPA identification numbers and deliver only to authorized used oil processing facilities, re-refiners, burners, or marketers with valid EPA ID numbers per 40 CFR 279.40-279.46.

TSCA Waste

TSCA waste transport requires specialized documentation including waste shipment records for asbestos per 40 CFR 61.150, PCB shipping papers per 40 CFR 761.207, and DOT compliance under 49 CFR for hazardous materials classification and packaging.

PCB waste must be disposed of at EPA-approved facilities capable of managing PCB-contaminated materials.

Asbestos-containing materials are classified as either friable RACM requiring sealed packaging with waste shipment records, or non-friable ACM that must be handled to prevent fiber release during storage and transport to permitted disposal facilities.

Contaminated Media

Contaminated soil and media transport requires characterization data, waste profiles, and pre-approval from receiving facilities, with transportation following DOT requirements based on contamination levels and hazardous constituent concentrations.

Generators must obtain ADEC approval for offsite treatment facilities per 18 AAC 75.365, maintain chain-of-custody documentation, and ensure transporters are properly licensed for hazardous materials when contamination levels exceed regulatory thresholds.

ADEC must approve the movement or disposal of contaminated soil and water from a site in accordance with 18 AAC 75.325(i), 18 AAC 75.370(b), and 18 AAC 78.274(b). The Contaminated Media Transport and Treatment or Disposal Approval Form should be used to document this approval. The contractor will follow the ADEC Overview for form completion found at: <https://dec.alaska.gov/spar/csp/offsite-remediation/ttd-form>.

Soil treatment facilities regulated under 18 AAC 75.365 are required by their Operations Plans to only accept contaminated soil for which an approval form has been signed by an ADEC project manager. The contractor must ensure environmental media is transported to final disposition.

Lead-Based Paint

Residential LBP waste transport follows household hazardous waste requirements with minimal documentation, while non-residential LBP waste requires TCLP testing results and hazardous waste manifests if exceeding 5 mg/L leachable lead per 40 CFR 261.24. DOT regulations under 49 CFR apply based on lead concentrations and package quantities, with proper classification as hazardous materials when threshold limits are exceeded. Contaminated soil exceeding 400 mg/kg total lead must be transported as polluted soil under 18 AAC 60.025 with appropriate documentation and pre-approved disposal facilities capable of managing lead-contaminated materials.

Construction and Demolition Debris

Construction and demolition waste transport requires coordination with permitted disposal facilities under 18 AAC 60, proper load securing to prevent spillage, and segregation of potentially hazardous components such as ACM or LBP from clean debris. Transporters must ensure delivery to facilities authorized to accept specific C&D waste types, maintain records for commercial operations, and comply with local transportation ordinances

regarding construction vehicle routing and weight limits. Clean wood and inert materials may be transported with minimal documentation, while contaminated C&D waste requires characterization data and pre-approval from receiving facilities based on contamination type and concentration levels.

Shipping papers should be completed to meet the following regulatory requirements (as applicable):

- 40 CFR 761 (PCBs)
- 40 CFR 262 Subpart B (Manifest)
- 40 CFR 268 (Land Disposal Restrictions [LDRs])
- 49 CFR 172 Subpart B (Table of Hazardous Materials and Provisions)
- 49 CFR 172 Subpart C (Shipping Papers)
- 49 CFR 172 Subpart G (Emergency Response Information)

The contractor must determine DOT Proper Shipping Name (PSN) for each waste container requiring disposal and demonstrate to the FAA KO how this determination is developed.

Will contaminated soil or water be generated during the project, to include IDW?	Yes ☒ ☐	No ☐
If yes, will a Contaminated Media Transport and Treatment or Disposal Approval Form be prepared and submitted?	Yes ☒ ☐	No ☐ N/A ☐

Provide a short narrative describing contaminated media transport or explaining why this requirement is not met.

Non-hazardous C&D waste generated by project activities will be disposed of as commercial loads at the Fairbanks South Cushman Landfill or another appropriately permitted facility. Recyclable materials including scrap metal, clean wood, and cardboard will be transported to authorized recycling facilities. Haul routes will use previously established ADOT&PF roads, with no new material sources, disposal sites, or haul routes established for the undertaking. Transporters will ensure proper containerization and load securing to prevent spillage during transit.

TSCA waste transport will require specialized documentation including waste shipment records for asbestos and PCB shipping papers, with DOT compliance for hazardous materials classification and packaging. PCB waste will be transported to EPA-approved disposal facilities capable of managing PCB-contaminated materials. Asbestos-containing materials will be classified as either friable RACM requiring sealed packaging with waste shipment records, or non-friable ACM handled to prevent fiber release during transport to permitted disposal facilities. Lead-based paint waste will require TCLP testing results and hazardous waste manifests if exceeding 5.0 mg/L leachable lead, with DOT classification as hazardous materials when threshold limits are exceeded.

Hazardous waste transport will require EPA transporter identification number, uniform hazardous waste manifests, and DOT placarding and packaging compliance. Hazardous waste will be shipped to authorized out-of-state disposal facilities via approved transporters. Transport through Canada may be necessary for shipments to Lower 48 facilities, requiring coordination with Canadian authorities and compliance with the TDG Regulations, Cross-Border Movement of Hazardous Waste Regulations, and provincial transit requirements. Canadian transit requirements include advance notification through the CNMTS, drivers holding valid TDG training certificates, appropriate shipping papers with unique reference numbers, vehicle placards and safety marks in accordance with Canadian provincial and federal regulation, provincial authority notification, liability insurance coverage, and completion confirmation through CNMTS documentation. Universal waste transport will follow streamlined requirements with basic shipping papers, package markings indicating "Universal Waste," and compliance with accumulation time limits. Used oil transport will require DOT compliance, shipping records, and delivery only to authorized processing facilities, re-refiners, or marketers with valid used oil EPA identification number.

Contaminated soil and water transport that is not federally regulated, including IDW, will be addressed in Section 5.0. Additional waste management and disposal details may be added as additional project information is available and specific waste streams are identified.

Hazardous Waste Transporter ID, if necessary	To be determined		
Used Oil Transporter ID, if necessary	To be determined		
Have final disposal locations been determined for waste streams?	Yes ☐	No ☒	N/A ☐

ANTICIPATED DISPOSAL FACILITY ¹	FACILITY LOCATION	WASTE STREAM
Fairbanks South Cushman Landfill	Fairbanks, AK	C&D waste, inert waste, municipal waste, regulated and non-regulated ACM
Chemical Waste Management	Arlington, OR	PCB waste
Chemical Waste Management	Arlington, OR	Hazardous waste
Chemical Waste Management	Arlington, OR	PFAS-contaminated waste
Republic Services Landfill	Roosevelt, WA	PFAS-contaminated waste
Moose Creek	North Pole, AK	PFAS-/petroleum-contaminated soil (for incineration)
Green Star of Interior Alaska / Total Reclaim	Fairbanks / Anchorage, AK	Electronics, batteries, lamps, ballasts (for recycling)
Central Recycling Services	Anchorage, AK	Electronics, batteries (for recycling)
K & K Recycling Inc.	Fairbanks, AK	Metal (for recycling)
C & R Metal Recycling	Fairbanks, AK	Metal (for recycling)

¹ Disposal locations may be altered depending on project details and identified waste streams.

Have DOT PSNs been determined for waste streams?	Yes ☐	No ☒	N/A ☐
<i>Provide a short narrative describing waste shipment details or why this requirement is not met.</i>			

Additional disposal sites and details, to include PSNs, will be included as project details and waste streams are determined.

5.0 CONTAMINATED MEDIA MANAGEMENT

5.1 Investigation-Derived Waste

Overview: IDW should be managed in accordance with ADEC Field Sampling Guidance (ADEC 2024h) and waste regulations as appropriate.

In accordance with 18 AAC 75.360(3)(C), a plan is required for handling, transporting, and disposing of IDW. Soil sampling waste should be managed in a manner that does not contribute to further environmental degradation or pose a threat to public health or safety. Onsite IDW disposal may be approved by ADEC CSP on a site-specific basis.

All monitoring well development and purge water should be treated or disposed of using methods described in the CSP-approved plan. If free product or a heavy sheen is present in development or purge water, water must be treated or disposed of offsite. If contamination is not visible (i.e., no free product or heavy sheen), monitoring well purge water may be filtered using a type of filter system appropriate for the contaminants present (e.g., granular activated carbon [GAC]).

Filtered purge water may be reapplied to the ground surface in an area where the soil contains the same contaminants within site boundaries, which is a minimum of 100 feet away from any drinking water wells and surface waters, with site-specific CSP approval. Water should be discharged so that it infiltrates into the ground and does not run across the ground surface.

Discuss the IDW that is expected to be generated, management, treatment, and any onsite disposal anticipated. If this section is N/A to the project, briefly summarize why in the discussion section.

Discuss the offsite waste transportation and disposal requirements pertaining to IDW in the following section, to include how the media will be properly packaged and tracked during the transport.

Will contaminated soil cuttings be generated?	Yes ☐	No ☒
If yes, discuss below if cuttings will be returned to boreholes or spread on land surface (uncontaminated media only).		
Will soil cuttings be stockpiled or containerized and sampled?	Yes ☐	No ☐ N/A ☒
If yes, discuss the sampling and waste determination process in Section 4.2.		
Will monitoring well development or purge water be generated?	Yes ☐	No ☒
If no visible sheen is present, is monitoring well development or purge water anticipated to be treated onsite (e.g., GAC)?	Yes ☐	No ☐ N/A ☒
If yes, discuss the details about GAC monitoring and tracking procedures, and plans for final disposition of any spent GAC below.		
Is monitoring well development or purge water anticipated to require characterization through analytical sampling?	Yes ☐	No ☐ N/A ☒
If yes, discuss the sampling and waste determination process in Section 4.3.		

This CMMP does not address the characterization or management of in-situ site contamination or contamination that remains otherwise undisturbed from project activities, to include the known subsurface contamination present at the existing ATCT/TRACON. In-situ contamination at the existing and new ATCT/TRACON will be addressed under a follow up project(s).

5.2 Contaminated Soil Management

5.2.1 Soil Screening

Overview: Field screening samples must be collected from all stockpiled soils, including those soils suspected of being free of contamination, except as identified in the ADEC Field Sampling Guidance (ADEC 2024h).

Soil screening methods should be guided by the ADEC Field Sampling Guidance (ADEC 2024h) and designed to be project-specific. To assist in characterizing excavated soil, use Table 2A (ADEC 2024h) to determine the minimum number of screening and laboratory analytical samples to collect from any excavated soils (including overburden soils and soils placed into stockpiles, drums, and other containers) at contaminated sites. Excavated overburden soils should be sampled as any other excavated soil.

Qualitative visual (free product, sheen, staining, color change) and olfactory indicators should be employed. Additionally, semi-quantitative methods of screening may also be employed. Semi-quantitative methods of screening involve a photoionization detector (PID), or a metal detector, or sieving to observe particles of lead or other contaminant sources in the soil/sediment/debris.

Note, excavated soils that are clearly contaminated, known to be impacted only by petroleum (i.e., no RCRA or TSCA contamination present), not in need of characterization (i.e., previous data available), and that will be taken directly to a CSP-approved facility for the treatment of petroleum-contaminated soils may be excluded from the field screening and laboratory sampling frequency in Table 2A.

Discuss the proposed qualitative and/or quantitative screening method and details below.

If this section is N/A to the project, briefly summarize why in the discussion section below.

Is soil screening anticipated?	Yes ☒ ☐	No ☐
If yes, discuss the proposed screening methods, procedures, equipment, and screening frequency that will be used to determine disposal options for excavated soils and sediments. Discuss the methods to be employed for volatiles, if present.		
If soil screening is required, has the contractor implemented health and safety monitoring to protect workers?	Yes ☐	No ☐ N/A ☐
If yes, include the proposed health and safety monitoring in the discussion below. If no or N/A, provide a short narrative explaining why.		

This CMMP does not address the characterization or management of in-situ site contamination or contamination that remains otherwise undisturbed from project activities, to include the known subsurface contamination present at the existing ATCT/TRACON. In-situ contamination at the existing and new ATCT/TRACON will be addressed under a follow-up project(s), however, if contamination is encountered or expected within excavated soils, screening will be conducted of the excavated soils in accordance with Table 1 (methods) and Table 2A (screening and analytical samples) of the ADEC Field Sampling Guidance (2024h) using headspace analysis or other approved method. If headspace analysis is used, screening will be conducted in glass jars or re-sealable polyethylene bags with the following procedures:

- Partially fill (one-third to one-half) a glass jar or re-sealable polyethylene bag with the sample to be analyzed. Total capacity of the jar or bag may not be less than eight ounces (approximately 250 mL), but the container should not be so large as to allow vapor diffusion and stratification effects to significantly affect the sample.
- If the sample is collected from a split spoon, after collecting analytical sample, transfer it to the jar or re-sealable polyethylene bag for headspace analysis immediately after opening the split spoon.

- Collect the sample from freshly uncovered soil if it's collected from an excavation or soil stockpile.
- If a jar is used, quickly cover the top with clean aluminum foil or a jar lid. Use screw tops, strong rubber bands, or other methods that will tightly seal the jar. If a re-sealable polyethylene bag is used it should be quickly sealed shut.
- From the time of collection, allow headspace vapors to develop in the container for at least 10 minutes but no longer than one hour.
- Shake or agitate containers for 15 seconds at the beginning and end of the headspace development period to assist volatilization. Temperatures of the headspace should be warmed to at least 40°F (approximately 5°C).
- After headspace development, insert the instrument sampling probe to a point about one-half the headspace depth. The container opening should be minimized, and care should be taken to avoid uptake of water droplets and soil particulates.
- After probe insertion, record the highest meter reading. This normally will occur between two and five seconds after probe insertion.
- Complete headspace field screening within one hour from the time of sample collection.
- Document all field screening results in the field record or logbook.
- Do not reuse soil from the head space sample in subsequent laboratory samples or analyses; separate samples from undisturbed, freshly exposed soil are to be collected and used for laboratory analyses.

Confirmation laboratory samples will be collected if heated headspace field screening indicates the presence of petroleum contamination in excavated soils (Section 5.2.2).

If lead contamination is encountered or expected within excavated soils, field screening may be conducted using handheld X-ray fluorescence (XRF) analyzers in accordance with EPA Method 6200 to provide data for segregating potentially lead-contaminated materials during demolition or excavation activities. Ex situ analysis will be conducted, with soil samples homogenized and placed in sample cups. Soil samples will be sieved through a No. 100 screen (less than 150 micrometers) when practicable to reduce particle size effects and improve correlation with laboratory analytical methods. Samples with moisture content greater than 10 percent will be dried prior to XRF analysis to minimize moisture interference with readings. Field XRF screening will be used to identify materials potentially exceeding applicable action levels, with results informing segregation of clean materials from potentially lead-contaminated waste streams. Quality assurance and quality control procedures will include analysis of approximately 20 percent of XRF-screened samples by laboratory methods to develop site-specific correlation between field and laboratory results. Final waste characterization for LBP debris and contaminated soils will be confirmed through laboratory TCLP analysis per EPA Method 1311 to determine if materials exceed the hazardous waste threshold of 5.0 mg/L leachable lead and require management as characteristic hazardous waste (see Sections 4.3 and 5.2.2).

To ensure that field instruments will be properly calibrated and remain operable in the field, proper calibration in accordance with the instrument's operation manual will be followed. In addition, users of the instrument will be trained in the proper calibration and operation of the instrument and will be required to read the operation manual before initial use.

No field screening methods are currently available for PFAS contamination. As such, if a determination is made that PFAS contamination is expected in excavated soils, based on site history and proximity to known PFAS source areas, representative analytical samples will be collected from excavated soils to

determine if soils exceed applicable action levels (Section 5.2.2). Additional contaminated soil management details may be added as additional project information is available and specific waste streams are identified.

5.2.2 Soil Sampling

Overview: Laboratory analytical samples must be collected from all stockpiled soils, including those soils suspected of being free of contamination, except as identified in the ADEC Field Sampling Guidance (ADEC 2024h).

The number of soil and sediment samples to be collected must be determined by the ADEC Field Sampling Guidance (ADEC 2024h) and applicable to the project work. To assist in characterizing excavated soil, use Table 2A (ADEC 2024h) to determine the minimum number of screening and laboratory analytical samples to collect from any excavated soils (including overburden soils and soils placed into stockpiles, drums, and other containers) at contaminated sites. Excavated overburden soils should be sampled as any other excavated soil.

Note, excavated soils that are clearly contaminated, known to be impacted only by petroleum (i.e., no RCRA or TSCA contamination present), not in need of characterization (i.e., previous data available), and will be taken directly to a CSP-approved facility for the treatment of petroleum-contaminated soils may be excluded from the field screening and laboratory sampling frequency in Table 2A.

Discuss the proposed soil and/or sediment sampling methods, including the number of samples to be collected and sampling frequency. The discussion should include data validation requirements and include how the sampling methods adhere to the ADEC Field Sampling Guidance (ADEC 2024h) in the discussion.

An FAA-approved project SAP and QAPP may be required prior to collection of waste samples. Prior to development of the SAP and QAPP, consultation with the FAA KO and ADEC (as applicable) are essential to determine applicable test methods, proper sample containers, sampling methodology, sample volume requirements, representative sampling procedures, laboratory data quality requirements, and sample logistics.

If an SAP and QAPP have been developed, include as attachment.

If applicable, discuss if soil and/or sediment will require hazardous waste characterization before disposal. If this section is N/A to the project, briefly summarize why in the discussion section below.

If field screening or other data indicate petroleum contamination in excavated soils, sampling will be conducted of excavated soils in accordance with Table 2A of the ADEC Field Sampling Guidance (2024h) as guided by field screening to determine the minimum number of laboratory analytical samples to collect from any excavated soils including overburden soils and soils placed into stockpiles, drums, and other containers if contamination is encountered. Laboratory analytical samples will be collected from suspected contaminated stockpiled soils. Excavated soils that are clearly contaminated, known to be impacted only by petroleum with no RCRA or TSCA contamination present, not requiring additional characterization due to availability of previous analytical data, and destined for direct transport to an ADEC-approved facility for treatment of petroleum-contaminated soils may be excluded from the field screening and laboratory sampling frequency requirements in Table 2A.

If lead-contaminated soils are encountered or expected, quality assurance and quality control procedures will include analysis of approximately 20 percent of XRF-screened samples by laboratory methods (ICP-MS or ICP-AES) to develop site-specific correlation between field and laboratory results. Final waste characterization for LBP debris and contaminated soils will be confirmed through laboratory TCLP analysis to determine if materials exceed the hazardous waste threshold of 5.0 mg/L leachable lead and require management as characteristic hazardous waste. Lead-contaminated soils exceeding 400 mg/kg total lead will be managed as polluted soil and transported with appropriate documentation and pre-approval from receiving facilities capable of managing lead-contaminated wastes.

If a determination is made that PFAS contamination is expected in excavated soils, based on site history and proximity to known PFAS source areas, excavated soils will be screened for PFAS through representative analytical sampling following ADEC Field Sampling Guidance (2024h). Sampling frequency and analytical methods will be determined based on excavation volumes, spatial variability of contamination, and disposal facility acceptance criteria. Soil samples will be analyzed for PFAS compounds using approved methods, with samples collected in accordance with low-level PFAS sampling protocols to prevent cross-contamination from sampling equipment, PPE, and field supplies.

Sample locations will be selected to represent the range of contamination within each stockpile. Samples will be collected at depths representative of the excavated interval, properly preserved in laboratory-provided containers, maintained under appropriate chain-of-custody documentation, and shipped under cooled conditions to certified analytical laboratories within required holding times.

Data validation will be conducted in accordance with ADEC-approved data validation procedures to ensure analytical results meet project data quality objectives and are suitable for waste characterization and disposal facility profiling purposes. Additional details summarizing the SAP and QAPP will be included as those plans are developed.

Additional text describing the samples that are proposed to be collected for each waste stream will be included as additional site information is available and specific waste streams are identified.

Soil sampling procedures outlined include collection of representative samples from excavated soils only. This CMMP does not address the characterization or management of in-situ site contamination or contamination that remains otherwise undisturbed from project activities, to include the known subsurface contamination present at the existing ATCT/TRACON. In-situ contamination at the existing and new ATCT/TRACON will be addressed under a follow-up project(s).

Additional contaminated soil sampling details may be added as additional project information is available and specific waste streams are identified.

Table 5-1 identifies the soil contaminants anticipated for the project and applicable analytical methods for each contaminant.

Table 5-1 Anticipated Soil Contaminants and Analytical Methods

ANTICIPATED SOIL CONTAMINANTS	APPLICABLE ANALYTICAL METHODS
PFAS, Petroleum, Lead, and PCBs	PFAS – EPA 1633 Petroleum – DRO AK102, GRO AK101, RRO AK103, PAHs SW8270E-SIM, and benzene, toluene, ethylbenzene, xylenes, and naphthalene (BTEXN) SW8260D Lead – SW6020B PCBs – SW8082A TCLP – EPA 1311

Overview: The contractor shall submit contaminated media samples to a DoD Environmental Laboratory Accreditation Program (ELAP) and ADEC Contaminated Sites Laboratory Approval Program (CS-LAP)-certified analytical laboratory for analysis https://dec.alaska.gov/spar/csp/lab-approval/list-of-approved-labs/ . If sampling is to be conducted, identify the intended laboratory for the project below. If this section is N/A to the project, briefly summarize why in the discussion section below.			
Laboratory Name:	To be determined	City, State:	To be determined
Does analysis comply with the requirements of the most recently approved DoD Quality Systems Manual (QSM)?		Yes ☐	No ☐ N/A ☐
Does analysis follow the current version of the ADEC Field Sampling Guidance?		Yes ☐	No ☐ N/A ☐
If no or N/A, provide a short narrative explaining why these requirements are not met.			
The contractor should attach the following document(s) to this CMMP:			
Current laboratory certifications and SOPs (Appendix F)		Yes ☐	No ☐ N/A ☐
If no or N/A, discuss why the document(s) were not attached to the CMMP.			

5.2.3 Stockpile Segregation and Labeling

SOIL STOCKPILES		
Overview: Stockpiles of soil and sediment may be necessary for the project. Excavated soils which are not taken directly to a landfill or CSP-approved treatment facility may be temporarily stockpiled onsite for sampling and analysis to determine disposal options. Stockpiled soil must be placed on a liner and covered in accordance with 18 AAC 75.370. The footprint or area where soil is stockpiled should be sampled before stockpile placement and after the soil is moved offsite. Stockpiled media should be separated based on media type and indicated levels of contamination; excavated soil and sediments will be classified as presumed clean, potentially contaminated, and contaminated. Material should be stockpiled separately into groups exhibiting less than 10 parts per million by volume (ppmv) (presumed clean); greater than or equal to 10 ppmv to less than 100 ppmv (potentially contaminated); and greater than or equal to 100 ppmv and/or the presence of free product or other obvious signs of contamination (contaminated).		
Will soils be stockpiled?	Yes ☒	No ☐
If yes, will waste stockpile(s) be covered?	Yes ☒	No ☐
Are waste stockpiles potentially hazardous per 40 CFR 261?	Yes ☐	No ☐
Are waste stockpiles made up of contaminated media per 18 AAC 75 and 78?	Yes ☒	No ☐
If stockpiles will be used, discuss the proposed segregation methods that will be implemented for soil and/or sediment management during project activities. Include how the stockpiled material will be constructed and managed in accordance with the applicable specifications listed in 18 AAC 75.370. If this section is N/A to the project, briefly summarize why in the discussion section below.		
Has the contractor discussed with the FAA PM and/or the FAI Environmental Department the proposed location of stockpiled areas?	Yes ☐	No ☐ N/A ☐
If yes, please attach a figure in Appendix A depicting the proposed location of stockpile area(s) on the project site. If no or N/A, provide a short narrative explaining why this requirement is not met.		

SOIL STOCKPILES			
In lieu of storage, have soils suitable for placement back into excavations or utility trenches been approved by ADEC and EPA?	Yes ☐	No ☐	N/A ☐
<i>If yes, discuss how the potentially contaminated soil will be reused throughout the project in the discussion section below.</i>			

Excavated soils that are not transported directly to a landfill or ADEC-approved treatment facility will be temporarily stockpiled on-site for sampling and analysis to determine appropriate disposal options. Known and suspected excavated contaminated soil will be managed and contained separate from soil known or suspected to be free of contamination. If instruments or other field observations indicate contamination, excavated soil will be segregated and contained based on apparent degrees of contamination and sampled accordingly to ensure proper disposal.

Stockpiled soil will be placed on polyethylene liners or other impermeable materials and covered with tarps or poly sheeting to prevent migration of contaminants, minimize infiltration of precipitation, control dust generation, and prevent stormwater run-on and run-off contact with contaminated materials. The footprint or area where soil stockpiles are placed may be sampled, as applicable, before stockpile placement to document baseline conditions and after soil removal, as applicable, to verify no residual contamination remains. Stockpiled media will be separated based on media type and indicated levels of contamination, with excavated soil and sediments classified and managed as presumed clean, potentially contaminated, or contaminated.

Stockpiles will be positioned to allow inspection access, facilitate future sampling and loading operations, and maintain adequate separation distances from active work zones, stormwater conveyances, site boundaries, and monitoring wells. Berms or other containment measures will be constructed around stockpile perimeters to prevent migration of materials beyond designated storage areas and to control leachate or run-off generated from precipitation events.

Additional soil stockpile management details may be added as additional project information is available and specific waste streams are identified.

SOIL LABELING
Overview: <i>Stockpiled material should be numbered chronologically and labeled with date started, project, and contaminant.</i> <i>For each anticipated contaminated soil and/or sediment media, describe appropriate labeling that will be implemented to maintain an orderly storage area(s). If this section is N/A to the project, briefly summarize why in the discussion section below.</i>

Each stockpile will be clearly identified with signage or markers indicating the contamination type, approximate concentration range based on field screening or analytical results, estimated volume, and sampling status. Stockpiled material will be numbered chronologically in the sequence established (e.g., Stockpile 1, Stockpile 2) and labeled with the date the stockpile was initiated, project identification, and contaminant of concern. Labels or signage will be weatherproof and securely posted at each stockpile location in a visible manner to facilitate inspection, sampling, and loading activities. Minimum labeling information will include stockpile identification number, date established, contamination type (petroleum, PFAS, lead, or mixed contamination), estimated concentration range or field screening results, approximate volume in cubic yards, analytical sampling status (pending analysis, results received, disposal approved), and any handling restrictions or precautions. Stockpile labels will be updated as analytical results are received or as disposal determinations are made to reflect current waste characterization and intended disposal facility.

A stockpile inventory log will be maintained documenting all stockpile locations, labeling information, analytical results, volume estimates, and final disposition to support tracking and recordkeeping requirements. Labeling requirements will extend to containerized soil in drums, super sacks, or roll-off containers, with each container marked to identify the source stockpile or excavation location, date containerized, waste type, and destination facility once disposal approval is obtained.

5.3 Contaminated Groundwater and Surface Water Management

5.3.1 Dewatering

CONTAMINATED GROUNDWATER AND SURFACE WATER
Overview: Water generated during an excavation/construction program could come from several sources, such as stormwater from precipitation, groundwater from excavations that may require dewatering, water from nearby surface water bodies, water collected from stockpiled soil, or water generated during equipment decontamination. All water, except uncontaminated stormwater that remains separated from waste material or contaminated material, must be collected and either contained for later treatment or disposal, or treated and discharged as it is generated. Stormwater that is clean (i.e., has not contacted soil or waste containing constituents of concern) must be managed as required by the ADEC Construction General Permit (ADEC 2026). Discuss the selected dewatering treatment for the project and the proposed location(s) to discharge the groundwater/surface water for the project. If this section is N/A to the project, briefly summarize why in the discussion section below.

It is anticipated that dewatering of potentially contaminated groundwater in the alluvial soils may be necessary during the project. Most of FAI is underlain by a groundwater PFAS plume, the source of which is presumably past usage of AFFF at airport fire training areas (FAA 2023), however the new ATCT/TRACON location is currently outside the boundaries of the known PFAS plume, and petroleum contamination is only currently documented at adjacent sites and within the subsurface of the existing ATCT/TRACON demolition site. The PFAS plume is tracked and managed by the ADEC CSP under Site Name “FIA – Sitewide PFAS.” This CMMP assumes that PFAS-contaminated groundwater may be encountered during the project. Additional details on construction dewatering may be added as additional project information is available.

5.3.2 Discharge Criteria and Screening

CONTAMINATED GROUNDWATER AND SURFACE WATER SCREENING
Overview: Discuss the water discharge criteria and screening frequency that is applicable to the project and how screening will be conducted throughout the project’s duration. If this section is N/A to the project, briefly summarize why in the discussion section below.

Dewatering effluent from construction activities (e.g., foundation construction) at the new ATCT/TRACON may require characterization prior to discharge to confirm contaminant concentrations and determine if treatment is necessary to meet APDES discharge criteria and surface water quality standards in accordance with Excavation Dewatering General Permit conditions (ADEC 2025j). The permit may include special conditions due to proximity of active ADEC-regulated contaminated sites in the vicinity of construction and demolition areas. If analytical results indicate PFAS or petroleum contamination exceeding applicable discharge limits, treatment via granular activated carbon, ion exchange, or other appropriate technologies will be required prior to discharge, or alternative disposal methods such as off-site transport via tanker truck to authorized wastewater treatment facilities will be implemented. Additional dewatering details may be added as additional project and permit information is available.

5.3.3 Sampling

CONTAMINATED GROUNDWATER AND SURFACE WATER SAMPLING
Overview: Discuss the water sampling requirements and how sampling will be conducted throughout the project's duration. Identify if analytical results are anticipated to be necessary during construction and discuss data validation requirements. An FAA-approved project SAP and QAPP may be required prior to collection of waste samples. Prior to development of the SAP and QAPP, consultation with the FAA KO and ADEC (as applicable) is essential to determine applicable test methods, proper sample containers, sampling methodology, sample volume requirements, representative sampling procedures, laboratory data quality requirements, and sample logistics. If an SAP and QAPP have been developed, include as attachment. If this section is N/A to the project, briefly summarize why in the discussion section below.

Groundwater and surface water sampling will be conducted if dewatering activities are required during foundation construction or if excavation sumps accumulate water requiring discharge or disposal. If sampling is required, sample collection will follow low-level PFAS sampling protocols to prevent cross-contamination from sampling equipment, personal protective equipment, and field supplies given the potential for PFAS presence based on site history and proximity to known contamination. Samples will be collected in laboratory-provided containers appropriate for the analytical methods specified, preserved according to method requirements, maintained under chain-of-custody documentation, and shipped under cooled conditions to certified analytical laboratories within required holding times.

Analytical parameters will be determined based on APDES Excavation Dewatering General Permit requirements and may include petroleum hydrocarbons (DRO/RRO), PFAS compounds via approved methods, and general water quality parameters such as pH, total suspended solids (TSS), and metals as specified in permit conditions. Sampling frequency will be established based on dewatering volumes, duration of discharge activities, permit requirements, and potential variability in groundwater quality across the site. Initial characterization samples will be collected prior to any discharge to establish baseline water quality and determine treatment requirements or disposal options.

If analytical results indicate contaminant concentrations approaching or exceeding APDES discharge criteria, additional monitoring samples will be collected at frequencies specified in the permit to verify treatment effectiveness or document compliance with discharge limitations. For water requiring off-site disposal, waste characterization samples will be collected to support waste profiling and receiving facility acceptance requirements. Data validation will be conducted to ensure analytical results meet project data quality objectives and are suitable for regulatory compliance demonstration.

An SAP and QAPP will be developed to establish detailed sampling procedures, analytical methods, quality control requirements, data validation criteria, and sample logistics. Additional dewatering sample details may be added as additional project and permit information is available.

Table 5-2 identifies the groundwater contaminants anticipated for the project and applicable analytical methods for each contaminant.

Table 5-2 Anticipated Groundwater Contaminants and Analytical Methods

ANTICIPATED GROUNDWATER CONTAMINANTS	APPLICABLE ANALYTICAL METHODS
PFAS, Petroleum, Lead, and PCBs	PFAS – EPA 1633 Petroleum – DRO AK102, GRO AK101, RRO AK103, PAHs SW8270E-SIM, and BTEXN SW8260D

	Lead – SW6020B PCBs – SW8082A
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Table 5-3 identifies the anticipated media that must meet specific water quality parameters and those parameters.

Table 5-3 Anticipated Media and Water Quality Parameters

Dewatering effluent	pH TSS Temperature Conductivity Turbidity

Overview: The contractor shall submit contaminated media samples to a DoD ELAP and ADEC CS-LAP certified analytical laboratory for analysis <https://dec.alaska.gov/spar/csp/lab-approval/list-of-approved-labs/>. If sampling is to be conducted, identify the intended laboratory for the project below. If this section is N/A to the project, briefly summarize why in the discussion section below.

Laboratory Name:	To be determined	City, State:	To be determined
Does analysis comply with the requirements of the most recently approved DoD QSM?		Yes ☐	No ☐ N/A ☐
Does analysis follow the current version of the ADEC <i>Field Sampling Guidance</i> ?		Yes ☐	No ☐ N/A ☐
If no or N/A, provide a short narrative explaining why these requirements are not met.			
The contractor should attach the following document(s) to this CMMP:			
Current laboratory certifications and SOPs (Appendix F)		Yes ☐	No ☐ N/A ☐
If no or N/A, discuss why the document(s) were not attached to the CMMP.			

Laboratory details will be added as additional project and permit information is available.

5.3.4 Storage and Labeling

CONTAMINATED GROUNDWATER AND SURFACE WATER STORAGE
Overview: Discuss how groundwater and/or surface water will be containerized, stored, and managed at the project site. If this section is not applicable to the project, briefly summarize why in the discussion section below. Containerized contaminated groundwater and/or surface water should be numbered chronologically and labeled with date started, project, and contaminant. For each anticipated contaminated groundwater and/or surface water media, describe appropriate labeling that will be implemented to maintain an orderly storage area(s). If this section is not applicable to the project, briefly summarize why in the discussion section below.

Dewatering effluent and excavation sump water requiring temporary storage prior to treatment, discharge, or off-site disposal will be containerized in poly tanks, or other appropriate liquid storage vessels with capacity sized to accommodate anticipated dewatering volumes and durations. Storage containers will be positioned on level, stable surfaces with secondary containment systems sized to hold at least 110 percent of the largest container volume or 10 percent of the total stored volume, whichever

is greater. Secondary containment will be constructed of compatible materials that resist degradation from stored water and provide leak-tight integrity to prevent releases to soil or stormwater systems.

Storage tanks will be clearly labeled with contents description (e.g., dewatering effluent, excavation water), date containerization began, source location (e.g., foundation excavation, utility trench), analytical sampling status, and contaminant concentrations if analytical results have been received. Labels will indicate whether water is pending analysis, approved for discharge, requires treatment, or is designated for off-site disposal. Storage areas will be positioned away from active work zones, stormwater conveyances, monitoring wells, and site boundaries, and will be secured against unauthorized access. Tanks will be covered or equipped with lids to prevent precipitation infiltration, debris accumulation, and potential vector attraction.

If treatment is required prior to discharge, treated effluent may be temporarily stored in separate containers clearly marked to distinguish treated water from untreated dewatering effluent. Storage duration will be minimized to the extent practicable, with water discharged under permit authorization or transported off-site for disposal as soon as analytical results confirm compliance with applicable criteria or waste profiles are approved by receiving facilities. Inspection protocols for water storage will verify container and secondary containment integrity, proper labeling, absence of leaks or releases, and adequate freeboard to prevent overfilling during precipitation events. Additional details on storage of dewatering effluent may be added as project and permit details are available.

5.3.5 Treatment

CONTAMINATED GROUNDWATER AND SURFACE WATER TREATMENT
Overview: For discharge to surface water bodies, treatment must provide for contaminant concentrations below ambient water quality criteria and, also, may be subject to additional EPA Region 10 requirements that are more stringent than ADEC Division of Water requirements. If the generated groundwater and/or surface water from the project is unable to be dewatered in the proposed dewatering treatment, discuss how the regulated constituents applicable to the selected APDES permit will be treated. If this section is N/A to the project, briefly summarize why in the discussion section below.

If dewatering effluent analytical sampling is required and analytical results indicate PFAS or petroleum hydrocarbon concentrations exceeding APDES Excavation Dewatering General Permit discharge criteria, Alaska Water Quality Standards, or applicable surface water quality criteria, treatment will be required prior to discharge. Treatment system selection will be based on contaminant types and concentrations, required effluent quality, treatment capacity needed to match dewatering rates, and site-specific constraints such as available space, utilities, and climate conditions.

For PFAS-contaminated groundwater, treatment options may include GAC filtration, ion exchange resins, or combined treatment trains to achieve discharge concentrations below applicable criteria. GAC systems provide adsorption of PFAS compounds with treatment effectiveness dependent on contact time, carbon type, PFAS chain length, and influent concentrations. Ion exchange resins offer selective removal of PFAS compounds and can be regenerated or disposed of as spent media requiring off-site disposal at approved facilities. Treatment system(s) will be designed to account for site weather condition, including freeze protection, heated enclosures if necessary, and provisions for equipment maintenance in cold weather.

For petroleum-contaminated groundwater, treatment may include oil-water separation, air stripping for volatile organic compounds, biological treatment, or filtration depending on contaminant composition and concentrations. TSS exceeding permit limits will be addressed through settlement, filtration, or other appropriate solids removal technologies prior to discharge.

If treatment to meet discharge criteria is determined to be technically infeasible or cost-prohibitive relative to dewatering volumes, alternative disposal via off-site transport to authorized wastewater treatment facilities will be implemented. Additional treatment details may be added as project and permit details are available.

Dewatering efforts will not address the characterization or management of in-situ site contamination or contamination that remains otherwise undisturbed from project activities. In-situ contamination at the existing and new ATCT/TRACON will be addressed under a follow up project(s).

5.4 Contaminated Media Transport and Disposal

CONTAMINATED MEDIA TRANSPORT
Overview: Transport of waste and required shipping documentation should follow applicable state and federal requirements. The contractor must verify that the selected transporters and disposal facilities have the necessary permits and licenses to operate. ADEC must approve the movement or disposal of contaminated soil and water from a site in accordance with 18 AAC 75.325(i), 18 AAC 75.370(b), and 18 AAC 78.274(b). The Contaminated Media Transport and Treatment or Disposal Approval Form should be used to document this approval. The contractor will follow the ADEC Overview for form completion found at: https://dec.alaska.gov/spar/csp/offsite-remediation/ttd-form. Soil treatment facilities regulated under 18 AAC 75.365 are required by their Operations Plans to only accept contaminated soil for which an approval form has been signed by an ADEC project manager. The contractor must ensure environmental media is transported to final disposition. Class I landfills and industrial waste landfills with liners and leachate collection systems are permitted to accept soil that is contaminated less than a level approved by the ADEC Solid Waste Program (SWP). Class I and Class II landfills that do not operate with geomembrane liners may accept polluted soils with prior approval from the SWP. "Low level" polluted soil may be accepted by Class III landfills for beneficial use (or disposal if contaminated with petroleum only), with prior approval by the SWP. See Section 4.7 for additional waste transport details. Discuss the waste transportation and disposal requirements that pertain to the anticipated contaminated media for the project. Include how the media will be properly packaged and tracked during transport. If this section is N/A to the project, briefly summarize why in the discussion section below.

Transport of contaminated soil and groundwater from the project site will require ADEC approval prior to off-site movement. The Contaminated Media Transport and Treatment or Disposal Approval Form will be completed and submitted to the ADEC project manager for approval before contaminated media is transported from the site. The form will include site identification information, contamination source description, COCs with concentrations exceeding Method 2 cleanup levels, estimated volume of material to be transported, dates of generation, current physical location, destination facility information, and post-treatment analytical requirements. Form completion will follow ADEC Overview available at <https://dec.alaska.gov/spar/csp/offsite-remediation/ttd-form>. Disposal options for contaminated soil will be determined based on analytical results and disposal facility acceptance criteria.

Polluted soil not requiring treatment may be disposed at Class I landfills or industrial waste landfills with liners and leachate collection systems if contamination levels are below thresholds approved by the ADEC Solid Waste Program. Class I and Class II landfills without geomembrane liners may accept polluted soils with prior approval from the Solid Waste Program. Low-level petroleum-contaminated soil may be accepted by Class III landfills for beneficial use or disposal with petroleum-only contamination with prior Solid Waste Program approval.

Contaminated soil will be transported as covered loads to prevent spillage, dust generation, or releases during transport. Soil will be containerized in DOT-approved roll-off containers, dump trucks with tarps, or sealed containers appropriate for contamination levels and transportation distances. Transportation documentation will include bills of lading, weight tickets, chain-of-custody forms if analytical samples accompany shipments, and copies of the approved ADEC Contaminated Media Transport and Treatment or Disposal Approval Form.

Contaminated groundwater or dewatering effluent requiring off-site disposal will be transported via tanker truck to authorized wastewater treatment facilities capable of accepting and treating water with PFAS or petroleum contamination. Liquid waste shipments will include waste characterization data, manifests or shipping papers, and receiving facility waste profile approval documentation. All transporters and disposal facilities will be verified to have necessary permits and licenses to operate and accept the specific waste types prior to shipment. Weight receipts and disposal certificates will be obtained from receiving facilities.

Contaminated media that is also federally regulated (i.e., RCRA waste, TSCA waste) will also adhere to federal requirements for waste transport and disposal outlined in Section 4.7. Additional details regarding contaminated media transport and disposal may be added as project details are available and waste streams identified.

Have final disposal locations been determined for waste streams?	Yes ☐	No ☒	N/A ☐
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Table 5-4 identifies potential waste disposal facilities for the project.

Table 5-4 Anticipated Waste Disposal Facility Information

ANTICIPATED DISPOSAL FACILITY ¹	FACILITY LOCATION	WASTE STREAM
Fairbanks South Cushman Landfill	Fairbanks, AK	C&D waste, inert waste, municipal waste, regulated and non-regulated ACM
Chemical Waste Management	Arlington, OR	PCB waste
Chemical Waste Management	Arlington, OR	Hazardous waste
Chemical Waste Management	Arlington, OR	PFAS-contaminated waste
Republic Services Landfill	Roosevelt, WA	PFAS-contaminated waste
Moose Creek	North Pole, AK	PFAS-/petroleum-contaminated soil (for incineration)

¹ Disposal locations may be altered depending on project details and identified waste streams.

Have DOT PSNs been determined for waste streams?	Yes ☐	No ☒	N/A ☐
<i>Provide a short narrative describing waste shipment details or why this requirement is not met.</i>			

Additional disposal sites and details, to include PSNs, will be included as project details and waste streams are determined.

6.0 EQUIPMENT DECONTAMINATION

DECONTAMINATION

Overview: Depending on the contaminant, wash water and rinsate solutions may need to be collected in appropriate containers and disposed of properly in accordance with federal, state, and local regulations. Project must properly collect, store, and dispose of solvent waste and wash water in accordance with hazardous waste regulations, if applicable, and the CSP-approved plan.

Describe proposed decontamination water management below. If this section is N/A to the project, briefly summarize why in the discussion section below.

Visibly contaminated decontamination water for sites with petroleum hydrocarbons may be containerized for offsite shipment, or with CSP site-specific approval, filtered onsite and reapplied directly to the ground surface within site boundaries a minimum of 100 feet away from any drinking water wells and/or surface water bodies. If not visibly contaminated, decontamination water may be reapplied directly to the ground surface within site boundaries a minimum of 100 feet away from any drinking water wells and/or surface water bodies, if approved in a CSP site-specific plan. The water should be discharged so that it infiltrates into the ground and does not run across the ground surface.

Decontamination procedures will be implemented on the project to ensure equipment will not transfer COCs throughout the project site or FAI. Equipment operating in areas identified as contaminated or equipment contacting stockpiled contaminated media will be decontaminated before moving to clean areas or leaving the site. Decontamination will include dry brushing or scraping to remove visible soil, sediment, and debris, followed by pressure washing with potable water, if necessary, to remove residual contamination. Dump truck beds, loader buckets, excavator buckets, and undercarriages of vehicles will be decontaminated prior to driving through or operating in uncontaminated zones.

Decontamination activities will be conducted in designated decontamination areas equipped with appropriate containment to capture wash water, sediments, and cleaning residues. Decontamination pads will be constructed with berms or other containment measures to prevent migration of wash water to surrounding soils, stormwater systems, or surface waters. Visibly contaminated decontamination water from sites with petroleum hydrocarbon contamination will be containerized in drums, totes, or tanks for off-site shipment and disposal at authorized wastewater treatment facilities, or with ADEC Contaminated Sites Program site-specific approval, filtered on-site and reapplied directly to the ground surface within site boundaries a minimum of 100 feet away from any drinking water wells or surface water bodies. If decontamination water is not visibly contaminated, it may be reapplied directly to the ground surface within site boundaries a minimum of 100 feet from drinking water wells or surface water bodies if approved in an ADEC site-specific plan. Discharge will be conducted to ensure infiltration into the ground without run-off across the ground surface.

For equipment contacting PFAS-contaminated materials, decontamination procedures will address the persistent nature of per- and polyfluoroalkyl substances. Wash water from PFAS-contaminated equipment will be collected and managed as potentially PFAS-contaminated liquid waste requiring characterization, treatment, or off-site disposal, and will not be discharged to ground surface without analytical verification that PFAS concentrations are below applicable screening levels. Decontamination residues including sediments, filter materials, and cleaning materials will be characterized based on source contamination and managed accordingly as contaminated media or waste.

Tools, sampling equipment, and smaller apparatus contacting ACM, LBP, or PCB-containing materials will be cleaned in designated areas with proper collection and disposal of cleaning residues. Containerized decontamination water and sediments will be labeled with contents description, generation date, source

area, and anticipated disposal method. All decontamination waste will be stored in accordance with requirements outlined above.

Additional decontamination details may be added as project details are available and contamination on site is better understood.

7.0 RECORD KEEPING

Overview: The contractor must maintain waste determination documentation for each waste stream, supporting analytical packages, stockpile inspections, findings of non-compliance and associated corrective actions, and training records for 3 years. Additional records may be required depending on the project.

The contractor must maintain waste determination documentation for each waste stream, supporting analytical packages, supporting SDSs, accumulation area inspections, findings of non-compliance and associated corrective actions, and training records for 3 years. Additional records may be required depending on the project.

The contractor must maintain hazardous and non-hazardous waste manifests and submit LDR forms in accordance with 40 CFR 268. Include copies of all manifests and LDR forms in the project's Solid Waste Disposal Documentation Report.

The contractor must submit a copy of the applicable EPA and or state permit(s), manifest(s), or license(s) for transportation, treatment, storage, and disposal of hazardous and regulated waste by permitted facilities. Hazardous waste manifests must be reviewed, signed, and approved by the FAA KO before the contractor may ship waste. To obtain specific disposal Overview, coordinate with the FAA KO to determine the appropriate point(s) of contact. Include disposal documentation in project Solid Waste Disposal Documentation Report.

Also, the contractor must provide copies of the waste handling facilities' weight tickets, receipts, bills of sale, and other sales documentation for solid wastes or recyclables. In lieu of sales documentation, a statement indicating the disposal location for solid waste that is signed by an employee authorized to legally obligate or bind the firm may be submitted.

Has the contractor designated a location for the storage of records as required for 3 years?	Yes ☐	No ☐
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If yes, discuss what records will be stored and how they will be managed appropriately to meet the storage requirements; if no, provide a short narrative explaining why.

Comprehensive records documenting all waste management activities for a minimum of three years following project completion will be maintained. Records will include waste determination documentation for each waste stream with supporting generator knowledge evaluation, safety data sheets, and analytical data packages. Hazardous waste manifests, universal waste shipping records, and Land Disposal Restriction notification forms will be maintained and submitted in accordance with applicable requirements. Copies of all manifests will be included in the final reporting documentation.

Documentation of contaminated media management will include completed ADEC Contaminated Media Transport and Treatment or Disposal Approval Forms with project manager signatures, analytical reports supporting waste characterization and disposal decisions, stockpile inventory logs, and weight tickets from receiving facilities. Storage area inspection logs will document container integrity, proper labeling, compliance with accumulation time limits, and any findings of non-compliance with associated corrective actions taken.

Training records documenting personnel qualifications for waste handling, hazardous materials management, and equipment decontamination will also be maintained throughout the project duration. All waste management records will be compiled and submitted in the project Solid Waste Disposal Documentation Report upon project completion, demonstrating regulatory compliance and proper disposal of all waste streams generated during demolition and construction activities.

Has the contractor confirmed the appropriate point(s) of contact for specific disposal Overview?	Yes ☐	No ☐	N/A ☐
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If yes, include all point(s) of contact including their contact information.

Have the applicable EPA and or state permit(s), manifest(s), or license(s) for transportation, treatment, storage, and disposal of hazardous and regulated waste by permitted facilities for the project been reviewed, signed, and approved by the COR?	Yes ☐	No ☐	N/A ☐
Will project disposal documentation be included in the project Solid Waste Disposal Documentation Report?	Yes ☐	No ☐	N/A ☐
Will the contractor provide copies of the waste handling facilities' weight tickets, receipts, bills of sale, and other sales documentation for solid wastes or recyclables? In lieu of sales documentation, a statement indicating the disposal location for solid waste that is signed by an employee authorized to legally obligate or bind the firm may be submitted.	Yes ☐	No ☐	N/A ☐
<i>If no or N/A to any of these questions, provide a short narrative explaining why.</i>			

Additional record keeping details will be provided as project details are available.

8.0 REPORTING

Overview: *Prior to the closeout of the project, the contractor shall prepare and achieve regulatory approval of a Final Contaminated Materials Management Plan for submission to COR, ADEC, and EPA (as applicable). The CMMP Report shall include, at a minimum, the following items:*

- *Report to meet ADEC requirements presenting activities as related to the CMMP*
- *Description of contaminated media activities*
- *Maps with stockpile samples, if applicable*
- *Tables with contaminated media screenings and analytical samples with corresponding results*
- *Validated analytical data and data packages, data validation report, ADEC Laboratory Data Review Checklists*
- *All applicable records generated*
- *Discuss adherence to the above-listed final reporting requirements for the project.*

Prior to project closeout, the contractor will prepare a Final Contaminated Materials Management Plan Report for submission to the COR, ADEC, and EPA as applicable. The report will document all contaminated media management activities conducted during the project including descriptions of excavation, stockpiling, sampling, treatment, and disposal activities. Site maps will illustrate stockpile locations, sampling points, and excavation areas. Tables will present field screening results and laboratory analytical data for all contaminated media with corresponding sample locations and depths. Validated analytical data packages, data validation reports, and ADEC Laboratory Data Review Checklists will be included. The report will include copies of approved ADEC Contaminated Media Transport and Treatment or Disposal Approval Forms, disposal facility weight tickets and certificates, waste manifests, and all other records generated during waste management activities. The Final CMMP Report will demonstrate compliance with regulatory requirements and obtain ADEC approval prior to project closeout.

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9.0 WASTE MANAGEMENT SUMMARY

Overview: Table 9-1 is to be completed by the contractor to provide a holistic overview of how the anticipated waste streams called out in Table 3-1 are to be managed during the project. Add additional rows as needed for the project. If a waste stream requires analytical sampling to make an accurate waste determination, please indicate that in the Waste Stream column by adding the “*” symbol after the waste stream (e.g., Friable ACM*). Waste classification can be broad categories such as hazardous, universal, non-hazardous, TSCA, recyclables, and/or C&D debris. This list is not inclusive of all potential waste categories and the contractor should customize the table to project-specific wastes.

Table 9-1 Management of Anticipated Waste Streams

WASTE STREAM	WASTE CLASSIFICATION	ESTIMATED QUANTITY	CONTAINER TYPE	PROPER SHIPPING NAME	PROPOSED DISPOSAL FACILITY	DISCUSSION
To be determined	To be determined	To be determined	To be determined	To be determined	To be determined	To be determined
To be determined	To be determined	To be determined	To be determined	To be determined	To be determined	To be determined
To be determined	To be determined	To be determined	To be determined	To be determined	To be determined	To be determined
To be determined	To be determined	To be determined	To be determined	To be determined	To be determined	To be determined

Notes:
For definitions, refer to the Acronyms and Abbreviations section.

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10.0 REFERENCES

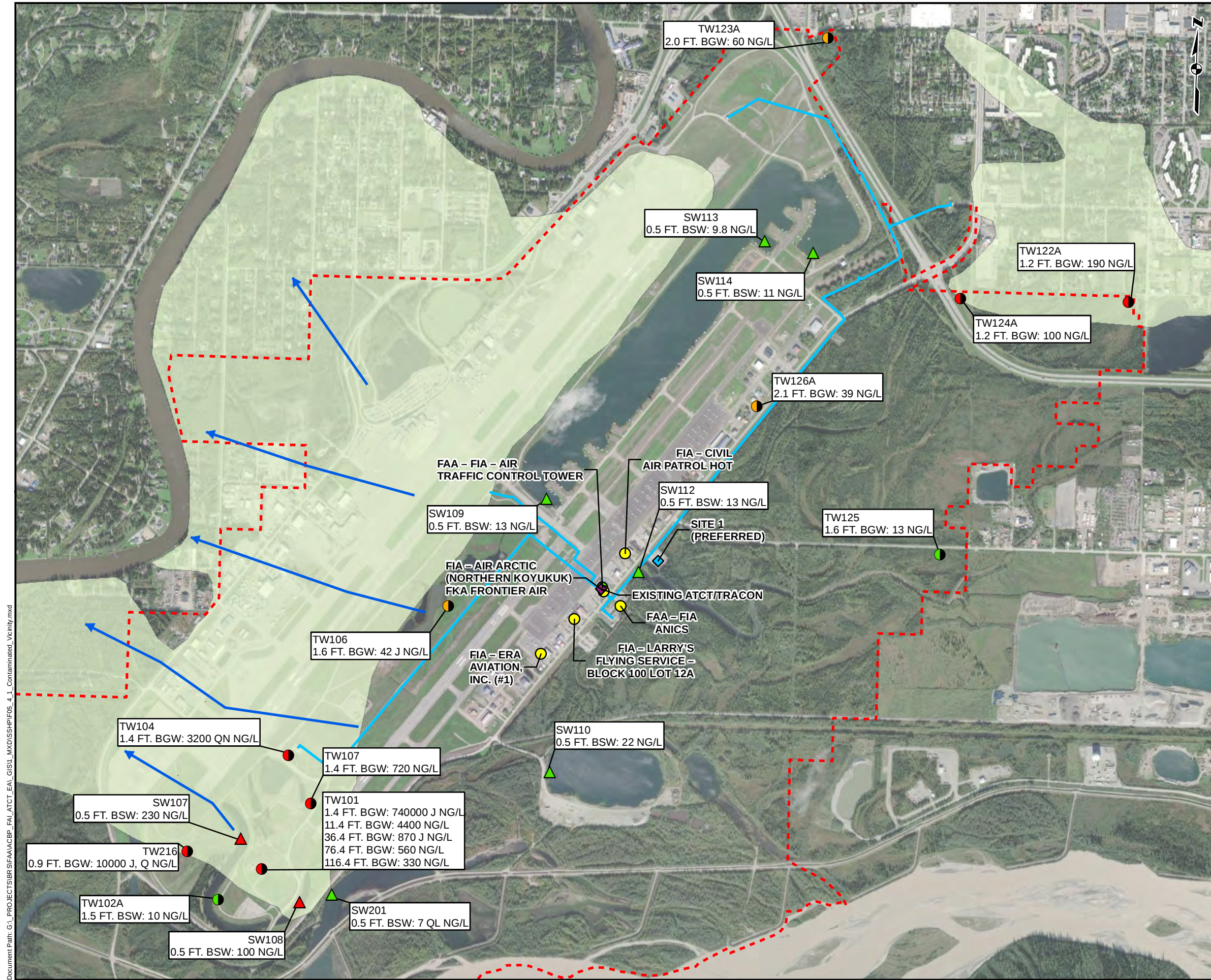
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APPENDIX A

FIGURES

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ENVIRONMENTAL ASSESSMENT FOR PROPOSED
AIRPORT TRAFFIC CONTROL TOWER/TERMINAL
RADAR APPROACH CONTROL FACILITY
REPLACEMENT
FAIRBANKS INTERNATIONAL AIRPORT, ALASKA

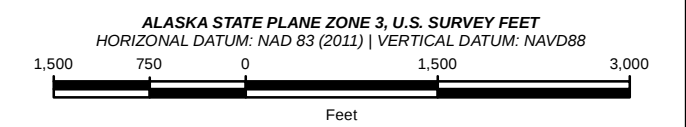
**ADEC CONTAMINATED SITES IN THE VICINITY OF
THE PROPOSED ACTION**

- Legend**
- ADOT&PF PFAS Test Results**
- ▲ Surface Water Sample, Results Below 35 ng/L
 - ▲ Surface Water Sample, Results Exceed 69 ng/L
 - Groundwater Sample, Results Below 35 ng/L
 - Groundwater Sample, Results Elevated 35 to 69 ng/L
 - Groundwater Sample, Results Exceed 69 ng/L
 - ◆ Existing ATCT/TRACON
 - ◆ ATCT Siting Alternative
- ADEC Contaminated Sites**
- Cleanup Active
 - Cleanup Complete - ICs
 - Groundwater Flow Direction
 - Underground Utilities
 - - - Fairbanks International Airport Boundary
 - FIA - Sitewide PFAS Plume

- Abbreviations**
- | | |
|---------|--|
| ADEC | Alaska Department of Environmental Conservation |
| ADOT&PF | Alaska Department of Transportation and Public Facilities |
| ANICS | Alaskan National Airspace Interfacility Communications System |
| ATCT | Airport Traffic Control Tower |
| bgw | below groundwater level |
| bsw | below surface water |
| FAA | Federal Aviation Administration |
| FIA | Fairbanks International Airport |
| ft | feet |
| HOT | heating oil tank |
| IC | institutional control |
| J | estimated concentration |
| Ng/L | nanograms per liter |
| PFAS | per- and polyfluoroalkyl substances |
| Q | Result has a serious deficiency and analyte presence/absence cannot be confirmed |
| QL | quantitation limit |
| QN | Result has an unknown bias due to a quality control failure |
| TRACON | Terminal Radar Approach Control Facility |

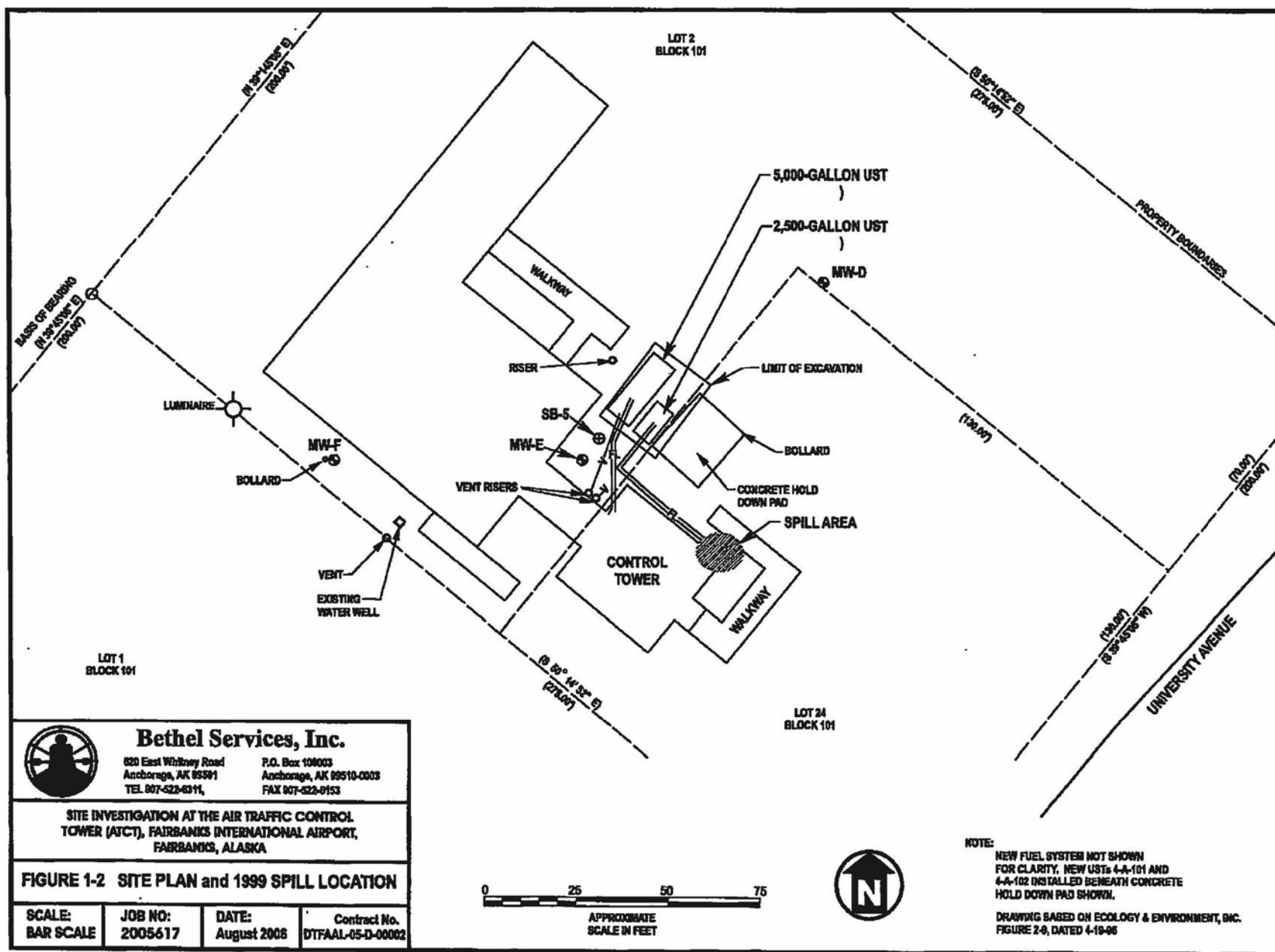
- Notes**
- For conceptual purposes only. All locations are approximate.

- References**
- Contaminated sites data sourced from Alaska Department of Environmental Conservation Contaminated Sites Database at <https://dec.alaska.gov/Applications/SPAR/PublicMVC/CSP/Search/>.
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 - Basemap source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.



PROJECT No.: ACBP01	DATE: 8/5/2025	FIGURE: 1
P.M.: M.H.	DRAWN: R.R.	

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APPENDIX B
HEALTH AND SAFETY DOCUMENTS

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APPENDIX C
PROJECT TEMPLATE DOCUMENTS

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APPENDIX D
SAFETY DATA SHEET(S)

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APPENDIX E
SAMPLING AND ANALYSIS PLAN AND QUALITY ASSURANCE PROJECT
PLAN

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APPENDIX F
LABORATORY CERTIFICATIONS AND STANDARD OPERATING
PROCEDURES

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APPENDIX G
EPIODIC GENERATION REQUEST

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APPENDIX H
REFERENCE DOCUMENTS

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APPENDIX I
ENVIRONMENTAL COMMITMENTS

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The Proposed Action will adhere to all federal, state, and local laws, permit requirements, and stipulations that may arise during the permitting process. Implementation of the Proposed Action will include measures to avoid, minimize, and mitigate potential environmental impacts through standard operating procedures and BMPs.

The environmental commitments required for the Proposed Action as identified during coordination and consultation with various regulatory agencies are presented in Table I-1.

Table I-1 Environmental Commitments

ENVIRONMENTAL IMPACT CATEGORY	COMMITMENT
Air Quality	- FAI would comply with its ADEC-issued ORL permit for changes to emissions sources at the airport, such as the addition of emergency generators. - FAA would minimize fugitive dust through construction BMPs.
Biological Resources	- FAA would make every effort to avoid harming SGCN or their habitat during implementation of the Proposed Action. - To the extent practicable, FAA would follow USFWS-recommended avoidance windows for vegetation clearing, ground disturbance, and other site construction activities during bird breeding and nesting seasons as well as activity and clearing buffers for eagle nests during the nesting season. - If vegetation clearing within the nesting season is anticipated, prior to construction, trees in the project area would be inspected for the presence of birds or active nests. - FAA would follow the USFWS nationwide avoidance and minimization measures for birds. - FAA would employ any additional BMPs recommended by USFWS for this project as necessary to avoid impacts on bird species. - If during project implementation it is determined that take of species protected under the MBTA and/or BGEPA may be necessary, FAA would coordinate with USFWS to obtain a federal permit.
Hazardous Materials, Solid Waste, and Pollution Prevention	- FAI would comply with its Facility Asbestos Operations and Maintenance Plan, NESHAP, TSCA, and FNSB Solid Waste Division procedures regarding proper survey, sampling, abatement, containment, and disposal of ACM prior to and during the demolition of the existing ATCT/TRACON. Written notification to EPA would be issued 10 working days prior to demolition of the existing ATCT/TRACON. - FAI would comply with its SPCC plan regarding installation of oil storage tank(s) for the new ATCT/TRACON and incorporation of the infrastructure into the existing plan and inspection schedule. - Any dewatering that may occur would be covered by an Excavation Dewatering General Permit. Excavation dewatering may require sampling and treatment prior to discharge. - FAA would obtain ADEC approval of the project CMMP (Appendix H) to ensure that wastes generated during construction in proximity to a contaminated site(s) and the groundwater plume are handled, stored, and disposed of appropriately. - An ADEC-approved Contaminated Media Transport and Treatment or Disposal Approval Form would be obtained prior to transporting any waste offsite.

Table I-1 Environmental Commitments

ENVIRONMENTAL IMPACT CATEGORY	COMMITMENT
	• FAA would continue reporting the quantities of hazardous material stored at its facilities (including the newly constructed ATCT/TRACON) annually to the state's EPCRA database. • A hazardous building materials survey would be conducted at the existing ATCT/TRACON prior to any demolition activities to identify all onsite hazardous materials to properly plan handling and disposal.
Land Use	• The Proposed Action would be consistent with the FAI Airport Layout Plan and the goals of the FNSB Regional Comprehensive Plan, which include protecting active airports from the encroachment of incompatible land use, facilitating airport expansion, and enhancing development opportunities while minimizing land use conflicts.
Natural Resources and Energy Supply	• Existing utility corridors would be used, when possible, to provide electricity and telecommunications services to the ATCT/TRACON. • Backup generators would only be used in the event of an emergency and periodically for maintenance. • If required, FAA would obtain and comply with the stipulations of a Temporary Water Use Permit from ADNR for use of non-potable water sourced from a local surface water body for demolition and construction (e.g., dust control). • Recyclable materials would be recycled when possible.
Water Resources	• FAI would obtain a Floodplain Permit from the FNSB prior to construction of the new ATCT/TRACON. • FAI would comply with its facility SWPPP regarding incorporation of the new ATCT/TRACON facility into the existing plan and inspection schedule. • A CGP would be obtained for activities that disturb 1 acre or more for their stormwater discharges. A project SWPPP would be developed and implemented for the duration of the project. • FAA is considering voluntary mitigation measures to reduce potential adverse effects to wetlands in alignment with the intent of EO 11990. The specific mitigation approach has not yet been finalized but will be determined prior to construction and documented in the final project record. Coordination with appropriate resource agencies may occur, as appropriate, during final project development.

Notes:

For definitions, refer to the Acronyms and Abbreviations list (Appendix J).

APPENDIX J
ACRONYMS AND ABBREVIATIONS

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ACRONYMS AND ABBREVIATIONS

°F	degrees Fahrenheit
µg/m ³	micrograms per cubic meter
AAC	Alaska Administrative Code
ACM	asbestos-containing material
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
Adj _{usage}	A usage factor to account for the fraction of time that a piece of equipment is in use over a specified time period
ADNR	Alaska Department of Natural Resources
ADOLWD	Alaska Department of Labor and Workforce Development
ADOT&PF	Alaska Department of Transportation and Public Facilities
AFFF	aqueous film-forming foam
AGL	above ground level
AJD	Approved Jurisdictional Determination
ANC	Ted Stevens Anchorage International Airport
APDES	Alaska Pollutant Discharge Elimination System
APE	Area of Potential Effect
ARFF	Aircraft Rescue and Fire Fighting
AS	Alaska Statute
ASNA	Aviation Safety and Noise Abatement Act
AST	aboveground storage tank
ATCT	Airport Traffic Control Tower
BGEPA	Bald and Golden Eagle Protection Act
bgs	below ground surface
BLM	U.S. Bureau of Land Management
BMP	best management practice
CAA	Clean Air Act
Census	U.S. Census Bureau
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERFA	Community Environmental Response Facilitation Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CGP	Construction General Permit
CH ₄	methane
CMMP	Contaminated Materials Management Plan
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CWA	Clean Water Act

D	Distance from a receiver to a piece of equipment, in feet
DAF	U.S. Department of the Air Force
dB	decibel
dBA	A-weighted decibel
dBC	C-weighted decibel
DNL	day-night average sound level
DOT	U.S. Department of Transportation
DRO	diesel range organics
EA	environmental assessment
EIS	Environmental Impact Statement
EMPP	Environmental Mitigation Pilot Project
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FAI	Fairbanks International Airport
FEDC	Fairbanks Economic Development Corporation
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FNSB	Fairbanks North Star Borough
FNSBSD	Fairbanks North Star Borough School District
FONSI	Finding of No Significant Impact
FOTS	Fiber Optic Transmission System
FTA	Federal Transit Administration
FWCA	Fish and Wildlife Coordination Act
G	A constant used in construction noise assessments that accounts for topography and ground effects
GA	General Aviation
GVWR	gross vehicle weight rating
HD	historic district
HDPE	high-density polyethylene
HVAC	Heating, Ventilation, and Air Conditioning
IC	institutional control
IWG	Interagency Working Group on the Social Cost of Greenhouse Gases
LBP	lead-based paint
L_{emission}	The noise emission level of the particular piece of equipment at the reference distance of 50 feet, in dBA
$L_{\text{eq(t)}}$	equivalent sound level
$L_{\text{eq.equip (8hr)}}$	equivalent sound level at a receiver from the operation of a single piece of equipment over 8 hours, in dBA

L _{eq, equip} (30day)	equivalent sound level at a receiver from the operation of a single piece of equipment over 30 days, in dBA
LHA	Lifetime Health Advisory
LOS	line-of-sight
MBTA	Migratory Bird Treaty Act
mg/m ³	milligrams per cubic meter
MSGP	Multi-Sector General Permit
MT	metric ton
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NO ₂	nitrogen dioxide
NO _x	nitric oxide
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRHP	National Register of Historic Places
NRI	Nationwide Rivers Inventory
NWI	National Wetlands Inventory
O ₃	ozone
ODPCP	Oil Discharge Prevention and Contingency Plan
ORL	Owner Requested Limit
PCB	polychlorinated biphenyl
PFAS	per- and polyfluoroalkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonic acid
Phase I ESA	Phase I Environmental Site Assessment
Phase II ESA	Phase II Environmental Site Assessment
PM ₁₀	particulate matter less than or equal to 10 micrometers in aerodynamic diameter
PM _{2.5}	particulate matter less than or equal to 2.5 micrometers in aerodynamic diameter
ppb	parts per billion
ppm	parts per million
PVC	polyvinyl chloride
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
ROI	region of influence
RTR	Remote Transmitter/Receiver
SDWA	Safe Drinking Water Act

SFHA	special flood hazard area
SGCN	Species of Greatest Conservation Need
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SPCC	Spill Prevention, Control, and Countermeasures
SWMP	Solid Waste Management Plan
SWPPP	Stormwater Pollution Prevention Plan
TAF	Terminal Area Forecast
TBD	to be determined
tpy	tons per year
TRACON	Terminal Radar Approach Control
TSCA	Toxic Substances Control Act
USACE	U.S. Army Corps of Engineers
UAF	University of Alaska Fairbanks
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
VOC	volatile organic compound
WOTUS	waters of the United States
WSR	National Wild and Scenic Rivers System
WSRA	Wild and Scenic Rivers Act

APPENDIX K
GLOSSARY

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GLOSSARY

Airport Traffic Control Tower (ATCT). An airport observation facility where air traffic controllers visually and electronically monitor aircraft take-offs and landings and ground traffic within the airport. The purpose of an ATCT is to confirm proper separation of aircraft and enhance the safety of aircraft operations at and in the vicinity of an airport.

Base Building. A building located adjacent to an ATCT that houses electrical, mechanical, and communications equipment and administrative offices associated with the operation of the ATCT.

Cab. The operational area of an ATCT where the air traffic controllers and relevant equipment are located.

et seq. Latin for “and the following.”

Fiber Optic Transmission System (FOTS). A FOTS is a continuous communication line that connects FAA’s ground surveillance systems to the ATCT. FAA Order JO 6000.36B provides national guidance to reduce vulnerability of critical National Airspace System telecommunication services to single points of failure. ATCT/TRACONs are required to have communications diversity, thereby creating redundancy and making the system less vulnerable to disruption. The new ATCT/TRACON would be connected to the airport’s existing FOTS system.

General Aviation (GA). All flights other than military and scheduled airline flights, both private and commercial.

Terminal Radar Approach Control Facility (TRACON). A TRACON is an air traffic control facility where operators monitor and communicate with aircraft pilots approximately 20 to 50 nautical miles away from the airport to confirm proper aircraft separation as they approach, depart, or pass through airspace controlled by the TRACON.

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