



**Airport Field Maintenance Storage Yard Expansion  
Ted Stevens Anchorage International Airport  
DRAFT ENVIRONMENTAL ASSESSMENT  
July 2017**

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For

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DRAFT ENVIRONMENTAL ASSESSMENT  
ANCHORAGE FIELD MAINTENANCE STATION STORAGE YARD EXPANSION  
Ted Stevens Anchorage International Airport

Prepared for:

United States Department of Transportation  
Federal Aviation Administration Alaskan Region Airports Division  
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On Behalf of the Sponsor:

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July 2017

***This Environmental Assessment becomes a Federal document when evaluated, signed, and dated by the Responsible FAA Official.***

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Responsible FAA Official

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Date

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## **EXECUTIVE SUMMARY**

The Alaska Department of Public Transportation & Public Facilities (DOT&PF) is proposing to expand the existing Airport Field Maintenance (AFM) Storage Yard located on the south side of Lake Hood Drive and the west side of Helio Place at the Ted Stevens Anchorage International Airport (TSAIA). The AFM Storage Yard expansion would be utilized as a storage yard for Airport operations primarily to store supplemental and backup equipment, materials for ongoing operations, and as a temporary laydown area for construction projects and for temporary materials stockpiling. The expansion would require approximately 16 acres of ground disturbance, which includes 7.7 acres wetlands filled, within an area historically dedicated to airport operations. The proposed AFM storage yard expands upon existing property use and function at TSAIA.

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## ACRONYMS

|        |   |
|--------|---|
| ADFG   | Alaska Department of Fish and Game                      |
| ADEC   | Alaska Department of Environmental Conservation         |
| AFM    | Airport Field Maintenance                               |
| AKEPIC | Alaska Exotic Plants Plant Information Clearinghouse    |
| APE    | Area of Potential Effect                                |
| APDES  | Alaska Pollutant Discharge Elimination System           |
| AWMP   | Anchorage Wetlands Management Plan                      |
| CGP    | Construction General Permit                             |
| DOT&PF | Alaska Department of Transportation & Public Facilities |
| EA     | Environmental Assessment                                |
| ESA    | Endangered Species Act                                  |
| FAA    | Federal Aviation Administration                         |
| FEMA   | Federal Emergency Management Agency                     |
| FIRM   | Flood Insurance Rate Map                                |
| IPaC   | Information for Planning & Conservation                 |
| LHD    | Lake Hood Seaplane Base                                 |
| MSGP   | Multi Sector General Permit                             |
| MOA    | Municipality of Anchorage                               |
| NWI    | National Wetlands Inventory                             |
| OHA    | Office of History and Archeology                        |
| RAP    | Recycled Asphalt  |
| SHPO   | State Historic Preservation Office                      |
| SWPPP  | Storm Water Pollution Prevention Plan                   |
| TSAIA  | Ted Stevens Anchorage International Airport             |
| USACE  | United States Army Corps of Engineers                   |
| USDOT  | United States Department of Transportation              |
| USGS   | United States Geological Survey                         |
| USFWS  | United States Fish and Wildlife Service                 |

## 1.0 Proposed Action

### 1.1 Summary

The Alaska Department of Public Transportation & Public Facilities (DOT&PF) is proposing to expand the existing Airport Field Maintenance (AFM) Storage Yard located on the south side of Lake Hood Drive and west of Helio Place at the Ted Stevens Anchorage International Airport (TSAIA). Constructing the proposed expansion would consist of clearing vegetation, placing gravel fill and paving. This focused environmental assessment (EA) addresses the impacts potentially resulting from the proposed action.

The proposed work would require placing fill into palustrine forested wetlands delineated in 2012 and again in 2016 by DOT&PF. DOT&PF has obtained US Army Corps of Engineers Section 404 (USACE) permit (see Appendix D.)

The project would:

- Place approximately 117,000 cubic yards of clean gravel fill material (approximately 94,900 cubic yards in wetlands) for constructing a 485 feet (ft) by 880 ft gravel pad with a usable surface of 9.11 acres. Maximum depth of the pad would be 11 ft at the center of the pad.
- Construct vegetated drainage ditch slopes surrounding the pad on all sides with a wide flat bottom. The wide flat bottom would provide retention during storm events. Vegetation would enhance water quality by removing sediment.
- Excavate approximately 19,000 cubic yards material to construct the southwest corner and vegetated ditches. DOT&PF anticipates most excavated material would not be useable as fill and would be disposed at the TSAIA upland unclassified material disposal site.
- Construct a new driveway would be constructed off Helio place to access the lot.
- Pave the constructed pad area.

The proposed gravel pad would be constructed to match the grade of the existing adjacent pad and have a 1 to 2% slope north. Geotextile separation fabric would be placed prior to placement of fill. Fill depth for the pad and access road would have a maximum depth of 11 ft at center, using clean excavated or excess fill material from airport projects. The proposed project would be constructed over an estimated 4-year period from granular material taken from airport project unclassified excavations. The pad may be surfaced with hot mix asphalt or recycled asphalt (RAP) surfacing contingent upon material availability and funding.

The subject property is dissected by the Anchorage Water and Wastewater Utility waterline, with two fire hydrants on site. The water line would be raised to be 10' below finished grade and hydrants would be relocated to the edges of the pad.

The applicant has ownership of the property. The proposed location is in a central location within the airport complex.

## 1.2 Purpose and Need

TSAIA proposes to expand the AFM Storage Yard for the purpose of providing additional storage capacity. The expansion would provide storage area for dry goods, materials, and equipment that AFM uses to maintain both the Lake Hood Seaplane Base (LHD) and TSAIA. The need for the proposed project is a shortage of existing laydown and storage area on airport property. The proposed action falls within the 2014 TSAIA Master Plan Update, Non-aeronautical Use of the Airport (TSAIA 2014). The Plan Update specifies the need for increased storage capacity to meet airport demands near future anticipated projects such as runway and taxiway reconstruction projects. The projects would generate a significant amount of usable materials including gravel and recycled asphalt that would be a valuable resource for AFM and future construction projects.

## 1.3 Location

The proposed project site is located within Section 27, T. 13 N, R. 04 W, of the Seward Meridian; United States Geological Survey (USGS) Quad Map Anchorage A-8; Latitude 61° 11' 11.20" N, Longitude 149° 58' 50.83" W; west of Helio Place and south of Lake Hood Drive, Anchorage, Alaska (see location and vicinity map, Appendix A).

## 2.0 Alternatives

DOT&PF evaluated project alternatives, including the proposed action, to identify the most practicable alternative after taking into consideration cost, existing technology, site logistics, construction requirements, and the proposed project purpose and need. DOT&PF determined the current proposed action as being the most reasonable, least environmentally damaging and most practicable alternative to meet the proposed project purpose and need. In all, DOT&PF considered the following alternatives:

### (A) Alternative 1 – No Action

The No Action alternative would not expand the AFM storage area and the facility would remain in its current state. The No Action Alternative would not be practicable as the existing facility would not meet future storage needs.

(B) Alternative 2 – New storage yard east of Lake Hood Strip

A new storage yard east of the Lake Hood Strip would have greater unavoidable anticipated wetlands impacts than the proposed action. In addition, this alternative would generate noise levels from storage yard equipment operations that exceed the Municipality of Anchorage (MOA) Noise Control ordinance. DOT&PF dropped this alternative from further consideration based on the greater wetlands impacts than the proposed actions and the anticipated violation of the MOA Noise Control ordinance that would be caused by field maintenance equipment operating in the vicinity of residences.

(C) Alternative 3 - Proposed Action

The current proposed action is outlined in Sections 1.1 and 1.2 above. DOT&PF selected Alternative 3 as the preferred alternative (proposed action) for the following reasons:

- Central location with existing infrastructure
- Served by existing utility access
- Would not interfere with additional land use and zoning requirements
- Would not interfere with additional land use and zoning requirements
- Would not require expansion of existing airport footprint  
Compatibility with existing airport operations
- Would not require costly demolition or retrofitting of existing area at the expense of existing infrastructure
- Meets the proposed project purpose and need statement

### 3.0 Affected Environment & Environmental Consequences

The EA analyzes the environmental impact categories affected by and consequences of the no action alternative and the proposed action as defined in FAA Orders 1050.1F (FAA 2015a) and the 1050.1F Desk Reference, July 2015 (FAA 2015b). The purpose of the analysis is to determine the potential environmental impacts during construction and operation of the proposed action once constructed and whether any potential impacts would be significant. The proposed action is measured against the significance thresholds for each impact category (FAA 2015). Potential impacts are also measured by comparing the proposed action with the no-action alternative, which serves as a baseline.

DOT&PF in cooperation with FAA determined following resource categories are non-issues because they do not exist within the proposed project area or have no potential to be impacted by the proposed action:

- Air Quality
- Coastal Resources
- Compatible Land Use
- Socioeconomics, environmental justice, and children’s environmental health and safety risks

- 
- Farmlands
  - Flood Plains
  - Light Emissions & Visual Effects
  - Natural Resources and energy supply
  - Noise and compatible land use
  - USDOT Transportation Act Section 4(f)
  - Wild and Scenic Rivers
  - Climate
  - Land use

A brief discussion of the above resource categories is included in Appendix E to this document.

### 3.1 Biological Resources

#### Affected Environment

The attached USFWS Information for Planning & Conservation (IPaC) report notes six (6) migratory bird species, the bald eagle and Pink-footed shearwater as year-round resident, present within the project area (Appendix C). Seven of the eight bird species (the exception being the Pink-footed Shearwater) listed in the IPaC report are listed in the ADFG Alaska Wildlife Action Plan as Species of Greatest Conservation Need (ADFG, 2015).

Vegetation within the project area is generally classified as Palustrine Forested Needle-Leaved Evergreen, and Scrub-Shrub Broad-leaved Deciduous. The area is dominated by a mixture of needle-leaved and broad-leaved trees and shrubs comprised typically of paper black spruce (*Picea mariana*), alders (*Alnus rubra*), and birch shrubs (*Betula papyrifera*). The area is also dominated graminoid species such as bluejoint reed grass (*Calamagrostis Canadensis*) and sedges (*Carex* spp.)

No permanent, open water bodies are located within the project area

#### Environmental Consequences

##### *No Action Alternative*

The no action alternative would have no effect on wildlife or plants.

##### *Preferred Alternative*

The proposed action would not have a discernable effect on wildlife within the broader context of airport operations. Due to the high-industrial nature of the TSAIA location, the proposed project is unlikely to affect wildlife species other than the birds and small rodents who utilize the acreage in the proposed project's footprint.

Existing habitat would be lost as a result of constructing the proposed project. However, the loss of seven acres habitat loss for the IPaC listed species would not result in adverse effects to the species population dynamics, reproduction rates, or the minimum population size needed to maintain the affected population since thousands of acres of similar habitat occur adjacent to the proposed project area and throughout the Anchorage bowl (MOA 2014a,b).

To avoid destroying active bird nests, eggs and nestlings as prohibited by the Migratory Bird Treaty Act (MBTA) (16 U.S.C 703), the proposed project would follow the USFWS recommended time period to avoid vegetation clearing, including grubbing, from May 1 through July 15 or conduct a nesting bird survey to insure no nesting birds are present within project limits if clearing between May 1 and July 15. To avoid disturbing nesting bald eagles, DOT&PF would conduct a preconstruction bald eagle nest survey. If active nests are found within 660 ft from the project limits, DOT&PF, in consultation with USFWS, would maintain the required distance and landscape buffers around nests, and avoid USFWS-specified noise causing activities during the nesting season. No permanent effects on bald eagle population dynamics or sustainability are anticipated from the proposed project.

As of November 1, 2012, the US Fish and Wildlife Service (USFWS) modified their procedure for responding to Section 7 Endangered Species Act (ESA) consultation requests for proposed activities within the MOA. The USFWS no longer responds to consultation requests and has instead issued a broad determination that no federally listed or proposed species, or designated or proposed critical habitat under USFWS jurisdiction occur within the MOA. The USFWS has concluded that proposed projects confined to the MOA would have no effect on listed species (USFWS 2012).

The proposed action would place clean gravel fill on 7.7 acres wetlands. The wetlands that would be filled have vegetation that is mostly black spruce, alders, birch shrubs, bluejoint reed grass and various common sedges. These plant species are common in the project area, surrounding the airport and in the greater Anchorage Bowl area. The anticipated 7.7 acres loss of these common wetlands species would not cause a significant impact on wetlands species in the Anchorage Bowl area. On July 17, 2017 The Alaska Exotic Plants Plant Information Clearinghouse online Data Portal showed no invasive species within or adjacent to the proposed project area (AKEPIC 2017).

### **3.2 Hazardous materials, solid waste and pollution prevention**

#### **Affected Environment**

The Alaska Department of Environmental Conservation (ADEC) Contaminated Sites (ADEC 2017a) webpage reviewed April 28, 2017 shows three contaminated sites (Hazard IDs 24721,

4119 and 23409) with institutional controls located approximately 1200 ft east from the proposed project area.

Hazard ID 24721 contaminated site is paved and the pavement caps about 75 to 100 cubic yards diesel range organics contaminated soil. ADEC has determined that no further remedial action is required at the site. The ADEC determination states the soil contamination area remains above 18 AAC 75 soil cleanup levels but it does not pose a risk to human health or the environment. Groundwater does not appear to be impacted at this time.

ADEC has imposed the following institutional control on the Hazard ID 4119 contaminated site:

There is no further remedial action required to address the residual contamination and the site will be closed subject to the following conditions: An institutional control will be recorded on the ADEC database to document that there is hazardous substance contamination remaining above the most stringent ADEC cleanup levels; and any proposal to excavate or transport soil or groundwater from this property requires ADEC approval in accordance with 18 AAC 78.274(b).

For the third contaminated site, Hazard ID 23409, ADEC has approved a condition closure that says:

Based on the information provided to date, the Department has determined that no further remedial action is required at the Lake Hood Air Harbor site. There are areas of soil and groundwater contamination that remain above the 18 AAC 75 soil and groundwater cleanup levels established for this site but it does not pose a risk to human health or the environment.

## **Environmental Consequences**

### *No Action Alternative*

The no action alternative would have no involvement with ADEC contaminated sites.

### *Preferred Alternative*

ADEC requires the Alaska Pollutant Discharge Elimination System (APDES) General Permit for Excavation Dewatering (Permit Number AKG002000) for excavation dewatering activities within 1500 ft from an active contaminated site or contaminated site with institutional controls. DOT&PF would require the contractor prior to ground disturbing construction activities to obtain the APDES General Permit for Excavation Dewatering since excavation dewatering is anticipated based on project area groundwater levels.

Solid waste and pollution prevention during construction would be managed by a DOT&PF approved Storm Water Pollution Prevention Plan (SWPPP). The contractor would be required to comply with the SWPPP by contract. Solid waste and pollution prevention once the proposed

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project is constructed would be managed by TSAIA established maintenance procedures and are not anticipated to impact landfills or the project area and vicinity.

### **3.3 Historic, Architectural, Archeological, and Cultural Resources**

#### **Affected Environment**

Constructing the proposed project would involve ground disturbing activities that have the potential to affect cultural resources. However, a cultural resources survey in November, 2016 did not identify any cultural resources within the area of potential effect (APE) (Braund, 2016).

#### **Environmental Consequences**

##### *No Action Alternative*

The no-action alternative would have no effect on cultural resources with the APE.

##### *Preferred Alternative*

DOT&PF distributed consultation of initiation letters to consulting parties on January 5, 2017. The SHPO and Municipality responded they had no objections to the proposed project. DOT&PF distributed a no historic properties affected findings letter to consulting parties on March 30, 2017. The SHPO concurred on April 14, 2017. No other consulting parties responded. See Appendix B for correspondence.

### **3.4 Water Quality**

#### **Affected Environment**

Portions of the proposed project location are classified as wetlands, with Lake Hood located approximately 1,000 ft to the south. Sheet flow from the proposed project area wetlands moves northeast across the Turnagain Bog at a shallow gradient (0.5%) and flows into Cook Inlet. Turnagain Bog is a Class A high value wetlands (MOA 2014b). There are no public water supplies located within or near the proposed project area according to a search of the ADEC Drinking Water Protection Map webpage (ADEC 2017b). Based on ADEC contaminated sites files from monitoring wells installed at nearby locations, groundwater is present between 5 and 10 ft below ground surface (ADEC Contaminated Sites). The ADEC Contaminated Sites program has no concerns with the proposed project (see Appendix B). No regulatory floodplains are located within or adjacent to the proposed project area based on a review of the Flood Rate Insurance Map Panel # 2000507400.

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## **Environmental Consequences**

### *No Action Alternative*

The no action alternative would not affect water quality.

### *Preferred Alternative*

DOT&PF anticipates the proposed action would have anticipated 7.7 acres unavoidable wetlands impacts with an associated 117,000 cubic yard clean fill. The proposed project would construct drainage ditches and culverts to maintain hydrologic connection to the Turnagain Bog to the north of the project area. Construction would require a DOT&PF approved ADEC Alaska Pollutant Discharge Elimination System (APDES) Construction General Permit (CGP) Storm Water Pollution Prevention Plan (SWPPP) prior to ground disturbance. The SWPPP would include best management practices for managing storm water, preserving surface water quality, and final stabilization measures at the conclusion of construction.

The proposed project would increase storm water flow from the project area because filling wetlands would reduce the permeable surface area and because the constructed storage area would be paved. Existing vegetative buffers would be retained and would slow the flow of storm water off the pad and serve as natural filtration for surface water. The proposed AFM expansion once constructed would be covered under the TSAIA Multi-Sector General Permit (MSGP) SWPPP (TSAIA 2015). Routine outfall monitoring around Lake Hood and Cook Inlet are conducted under this plan and the proposed expansion would be subject to the best management practices and effluent limitations established in that Plan.

Excavation depth to construction the proposed pad is between 5 to 11 ft. Excavation would likely encounter groundwater. Construction plans call for a geotextile fabric that would be placed under the proposed fill to prevent fine soil particles present in the fill from migrating into groundwater.

## **3.5 Wetlands**

### **Affected Environment**

Wetlands are located on the north side of the existing AFM Storage gravel pad and bounded by Helio Place to the east and Lake Hood Drive to the north (NWI 2016). Avoiding wetlands while meeting the proposed action purpose and need is not possible (see Section 1.2). DOT&PF conducted wetlands delineation in 2012 for the proposed project area and field checked and updated the 2012 delineation in 2016 in conjunction with USACE Section 404 permit application submitted in August 2016 (see Appendix D).

The MOA's 2014 Anchorage Wetlands Management Plan contains wetland designation maps for the entire municipality (MOA, 2014b). MOA determined the proposed project area contain 2.43 acres Class B and 6.83 acres Class C wetlands. While a Class A designation refers to the highest

value wetlands within the MOA, Class C wetlands are the lowest value wetlands and Class B wetlands are of intermediate value (MOA 2014b). The 2012 wetland report, 2016 wetlands update, and the USACE Section 404 Permit are included in Appendix D.

DOT&PF is proposing in-lieu fee compensatory mitigation using TSAIA-available Klatt Bog wetland credits.

## **Environmental Consequences**

### *No Action Alternative*

The no action alternative would have no effect on local wetlands. No wetland credits would be used.

### *Preferred Alternative*

Turnagain Bog hydrology would be altered by filling and paving 7.7 acres upstream wetlands, preserving existing drainage patterns would contribute to minimizing the project's effect on the existing hydrology. Stormwater runoff from the paved pad would drain into constructed drainage ditches and culverts and through existing culverts in a northeasterly direction towards the Turnagain Bog. Wetlands sheet flow from the project area in a northeasterly direction is the existing prevailing drainage pattern. Although anticipated impacts would reduce the quantity of wetlands available in the watershed to perform water quality, flood attenuation, and habitat functions, DOT&PF anticipates the consequences would be minor, and this loss of function would not substantially alter the level of function provided by the remaining wetlands. DOT&PF does not anticipate the proposed project would promote the development of secondary activities or services that would affect wetlands resources in the project vicinity.

Complete avoidance of wetlands and waters of the U.S. would not accomplish the proposed action's purpose and need. To minimize the proposed project's anticipated unavoidable wetland impacts DOT&PF would implement the following measures:

- Construct vegetated drainage ditch slopes surrounding the proposed pad on all sides with a wide flat bottom. The wide flat bottom would provide retention during storm events. Vegetation would enhance water quality by removing sediment.
- Construction limits would be clearly marked in the field prior to construction to ensure the permitted project footprint is not exceeded during construction
- The contractor would place geotextile fabric prior to the placement of fill to minimize impacts to groundwater
- Construction equipment movement would be restricted to within the identified project boundaries to minimize disturbance to native vegetation
- Stockpiles; if any, would not occur in wetlands that are not proposed for permanent fill placement and would be covered to protect from storm water runoff pollution

- All refuse, garbage, or debris created in the course of activities would be containerized and removed and disposed of in an approved facility.

## 4. Cumulative Impacts

The FAA Order 1050.1F Desk Reference has the following language about cumulative impacts:

The Council on Environmental Quality (CEQ) Regulations define a *cumulative impact* as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (see 40 CFR § 1508.7). Cumulative impacts can be viewed as the total combined impacts on the environment of the proposed action or alternative(s) and other known or reasonably foreseeable actions.

### 4.1 Past Actions

Development in the Anchorage Bowl since 1950 has drained and filled wetlands and changed drainage patterns (MOA, 2014). The 1996 Anchorage Wetlands Management Plan and other studies by the USFWS and the Alaska Department of Fish and Game (ADFG) have attempted to quantify the cumulative impacts from these fills over time on Anchorage area wildlife habitat and plant communities. In general, those studies summarize an overall trend of habitat loss for several of the most sensitive waterbird species (e.g., Hudsonian Godwit) that nest in patterned ground bogs within the Anchorage Bowl. The vegetation studies show that in several of the larger, more impacted bogs an overall drying trend is allowing brushier, scrub-shrub plant species/communities to intrude into originally wetter bog cores

The 2014 AWMP management strategy for Turnagain Bog Proper calls for:

“A” and “B” sites: Projects that address airport safety issues and neighborhood-airport conflicts (e.g., noise impacts, clear-zone requirements), including minor road, trail, utility lines, should be permitted. *The main Turnagain Bog core contains patterned ground wetlands and should be maintained and buffered to the maximum extent possible permitted with uses per the AIA Master Plan.*

The proposed action anticipated wetlands impacts are outside of the boundary of the mapped Turnagain Bog Proper (MOA, 2014b).

### 4.2 Present Actions

TSAIA is planning in 2017 to reconstruct the Lake Hood Lakeshore taxiway. Proposed work includes a new float plane work and replacing lights on the gate taxiway. The project would have minor wetland impacts on the Lake Hood shoreline and would not affect Lake Hood or Turnagain Bog hydrology. Airport runways, taxiways and other airport infrastructure have

ongoing improvements and maintenance projects. Once the proposed action goes to construction, TSAIA construction projects that require disposal of clean fill would dispose the fill at the proposed AFG Storage Yard expansion area.

### **4.3 Reasonably Foreseeable Future Actions**

TSAIA estimates filling the proposed storage yard expansion area from TSAIA construction projects disposing clean fill would take five years.

The 2014 TSAIA Master Plan Update (TSAIA 2014) has two comprehensive development alternatives (numbers 4 and 5) that show increasing tenant development as warranted by demand in the North Park area within the southwest Turnagain Bog Proper area. The other three alternatives show North Park tenant development on existing paved lots. With the 2014 AWMP management strategy to preserve the Turnagain Bog Proper, tenant development on existing paved lots would likely occur first. The proposed action falls within the 2014 TSAIA Master Plan Update, Non-aeronautical Use of the Airport.

The Lake Hood Airport Master Plan Update (TSAIA, April 2017) currently being updated discusses four alternatives: no capital improvements, major maintenance requiring capital improvement projects (CIP), upgrade existing facilities, and expand existing facilities. Other than the no capital improvements alternative, the other three alternatives would have impacts on wetlands and wetlands habitat for migratory birds. The three build alternatives would have no direct impacts to Turnagain Bog but hydrology impacts to the Bog would have to be considered in design to preserve existing drainage patterns. Reducing the patterned wetlands habitat that is favored nesting and foraging habitat for some migratory bird species would add to cumulative habitat loss for these species in the Anchorage Bowl. None of the other impacts categories in this EA would be impacted by potential future projects discussed in the draft Lake Hood Master Plan Update.

### **4.4. Cumulative Impacts Analysis**

#### **Wetlands**

The study area for wetlands impacts is the Turnagain Bog and contiguous wetlands that drain into the bog as direct and indirect effects from the proposed project would not extend beyond this geographic area. The proposed project would continue the cumulative trend of wetlands and associated habitat loss and cumulative impacts to wetlands hydrology in Turnagain Bog and other wetlands within TSAIA property. The proposed action alternative is anticipated to contribute to an incremental loss of wetlands and migratory bird habitat and to an incremental increase in impervious surface coverage. Since 1953, based on USGS Earth Explorer and Google Earth aerial photography, when the North-South runway was in place at TSAIA, approximately 260 acres wetlands between the existing Turnagain Bog extent and the North-

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South RW have been filled primarily for airport infrastructure and supporting businesses. The 2012 AWMP lists the acreage for Turnagain Bog as 268 acres. The 260 acres fill since 1960 assumes most of the filled area was wetlands which it appears to be from archived photography. Therefore, assuming the historical filled wetlands estimate is a reasonable approximation, approximately fifty percent of the wetlands contiguous with the existing Turnagain Bog to the east have been filled.

Based on historical photographs, almost all the fill into the wetlands to the east of Turnagain Bog and the North-South RW occurred before 2002. The proposed project is filling an additional 7.7 acres and incrementally adding to the arguably significant cumulative impacts between 1953 and 2002 – seven acres added to the past cumulative impacts totaling approximately 260 acres.

### Water Quality

Activities and events that could occur with the creation of new impervious areas are increased stormwater runoff and increased pollutant discharge into wetlands and Waters of the U.S. In addition to the proposed project, other reasonably foreseeable TSAIA and LHSB development would create additional impervious surfaces that could affect water quality. All projects are subject to existing and future water quality protection measures outlined in the APDES permit for the Airport, the MOA MS4 permit when applicable, and oversight of various federal agencies and any and all required permitting. For these reasons, no substantial cumulative effects to water quality are anticipated.

### Migratory birds and habitat loss

The study area for migratory birds for the proposed action is the extent of wetlands in the Anchorage Bowl since the Bowl can be considered an ecosystem (ADFG 1999). Data collection on the stability of migrating bird species in the Anchorage Bowl has only recently begun (ADFG 1999). In the 1950s, the AWMP estimated that approximately 18,903 acres wetlands encompassed the Anchorage Bowl alone. From the 1950s through 1990, almost 10,000 acres wetlands in the Anchorage Bowl were filled or altered. The 2014 AWMP estimate for wetlands in the Anchorage Bowl was 7,269 acres (latest available data). The cumulative wetlands effect for the proposed action from past and present actions alone is over 10,000 acres and happened prior to 2014. Habitat loss generally corresponds to a decline in the abundance of a species or species. Species impacted by habitat loss often cannot migrate into other suitable habitat since the ecological niches are already filled. The proposed project would contribute to the cumulative loss of wetland habitat used by migratory birds in the Anchorage Bowl. However, none of these species are currently listed as endangered or threatened, or are they candidate or proposed species under the Endangered Species Act.

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## 5.0 Public & Agency Coordination

In the Anchorage 2020 Comprehensive Plan, the Municipal Assembly identified both the need to expand airport services in order to maintain an efficient and competitive transportation gateway, as well as the need to limit significant airport expansion beyond the existing TSAIA borders. The proposed project aligns with both goals: by developing additional needed space to maintain airport infrastructure within the existing airport footprint and not encroaching upon residential spaces or recreational areas (MOA 2002). There is currently development adjacent to but not within the proposed project limits and no relocation of businesses or residents would be required. The proposed project location is within the existing airport complex and is consistent with activities that have occurred within the area for decades.

### 5.1 Public Involvement

TSAIA believes successful public involvement gives the public the information necessary to provide meaningful input on decisions. The 2014 Airport Master Plan involves the following levels of public involvement:

**Inform** -- keep the public, agencies and groups informed about the planning process and its goals.

**Consult** -- keep the public, agencies, and groups updated, listen to and acknowledge concerns and ideas, and provide feedback on how their input was considered.

**Involve** -- work with the public, agencies and groups to ensure their concerns and ideas are considered in developing the plan and provide feedback on how their input was considered.

The ACOE posted a 30-day Public Notice for the Section 404 permit for the proposed action. The Turnagain Arm Community Council (TCC) responded with a letter to USACE on December 22, 2016. At request by the USACE, DOT&PF responded to the TCC letter (see Appendix C). On April 5, 2017, DOT&PF published a Notice of Intent to Begin Environmental and Engineering Studies requesting comments on the proposed project from the public. The 30-day comment period ended on May 3, 2017 with no comments from the public.

The Notification of Availability for the draft EA would provide an additional 30-day public review period prior to finalizing the EA. DOT&PF would post public notices that the draft EA is available for a 30 day review and comment period, and invite participation from the following two primary groups:

**Technical Advisory Committee:** Industry and aviation experts with technical expertise, including representatives from commercial airlines, freight carriers, airport leaseholders, general aviation users, and local, state, and federal agency representatives.

**Working Group:** Neighborhood, community, non-governmental organization, and business interest groups to would facilitate communication between interested parties, TSAIA administration, and the planning team.

The proposed action falls within the 2014 TSAIA Master Plan Update, Non-aeronautical Use of the Airport. The Plan Update specified the need for increased storage capacity to meet airport demands (TSAIA 2014). The Plan underwent an intensive and rigorous public participation process prior to finalization. The proposed action aligns with the results of public and stakeholder involvement review of the Master Plan Update. The TSAIA Master Plan Update Public Involvement Plan contains a detailed description of the means by which the public were consulted in the development of the goals and implementation of goals including expanded storage area options.

### 5.2 Highly Controversial Environmental Grounds

The proposed action is consistent with ongoing activities at the TSAIA area and is not considered highly controversial. No opposition from a federal, state, or tribal entity has been received. Although the Turnagain Community Council expressed concerns about fill in wetlands affecting Turnagain Bog hydrology and the proposed action’s consistency with the AWMP and the Lake Hood Seaplane Base Master Plan, DOT&PF addressed their concerns (see Appendix C).

The proposed action is consistent with plans goals, policy, zoning, and local controls that have been adopted for the area in which the airport is located, and is compatible with surrounding land uses. The Anchorage 2020 comprehensive community plan outlines the need to keep TSAIA competitive and efficient while limiting its expansion beyond the current footprint. The proposed action satisfies both goals by expanding within the airport’s current footprint and providing improved and larger-scale maintenance storage

### 5.3 Permits Required

The following permits are required for the proposed action:

| PERMIT                        | AGENCY |
|-------------------------------|--------|
| APDES CGP                     | ADEC   |
| APDES CGP SWPPP               | ADEC   |
| Section 404 Individual Permit | USACE  |

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## 6.0 Environmental Commitments

DOT&PF and associated contractors involved in the development and execution of the proposed project would comply with applicable environmental and cultural laws and regulations as stated by federal, state, local, and tribal law. The EA has not identified significant impacts imparted to the biological or human environment as a result of the proposed action.

The mitigation measures and commitments below would be met to minimize impacts during and after construction of the proposed project. These conditions apply only to the preferred alternative (proposed action). All commitments would be part of the construction contract specifications.

### General

- The Contractor is responsible for obtaining all necessary permits and clearances for disposal sites and staging areas unless DOT&PF has designated such sites.
- The Contractor is responsible for creating a traffic control plan and providing advance notice to the public and businesses about construction activities that could cause delays, detours, or affect access to adjacent properties.

### Air Quality

Air quality would be maintained through best management practices such as watering, sweeping, stabilizing construction entrances/exits, and use of equipment emission control devices.

### Bald and Golden Eagles

Bald Eagles are protected under the Bald Eagle Protection Act (16 U.S.C. 668-668c) which prohibits “takes” of bald eagles, their eggs, nests, or any part of the bird. The Act defines “taking” as “to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb.”

The contractor will be required to maintain a Primary Zone of minimum 330-ft as an undisturbed habitat buffer around nesting bald eagles. If topography or vegetation do not provide an adequate screen or separation, then extend the buffer to 1320-ft, or a sufficient distance to screen the nest from human activities. The actual distance will depend on site conditions and the individual eagle’s tolerance for human activity. Within the Secondary Zone, between 330-ft and 660-ft from a nest tree, no obtrusive facilities, or major habitat modifications shall occur. If nesting occurs in sparse stands of trees, treeless areas, or where activities would occur within line-of-site of the nest, extend the buffer up to 2640-ft. No blasting, logging and other noisy, disturbing activities should occur during the nesting period (February 1 – August 31) within the primary or secondary zones. The contractor will be required to contact the DOT&PF construction Project Engineer if an active eagle nest is observed within the primary or secondary zones.

### **Hazardous Materials**

All hazardous material would be disposed of in accordance with state and federal laws.

### **Historic Properties**

If cultural, archaeological, or historic sites are discovered during project construction, all work that may impacts these resources would stop until DOT&PF notifies FAA and SHPO and consults with SHPO to determine the appropriate action.

### **Noise**

The contractor would make every reasonable effort to minimize construction noise through abatement measures such as proper maintenance of construction equipment.

### **Storm Water**

The DOT&PF Airport Design section would include an Erosion and Sediment Control Plan to assist contractors in development of a DOT&PF approved SWPPP and Hazardous Materials Control Plan. Plans would be implemented in accordance with contract specifications and the APDES CGP.

### **Wetlands**

- To avoid destruction of active bird nests, eggs and nestlings as prohibited by the Migratory Bird Treaty Act (MBTA) (16 U.S.C 703), the proposed project would follow the USFWS recommended time period from May 1 through July 15 to avoid vegetation clearing including grubbing. Clearing and grubbing would be done outside of the this time or a nesting bird survey within project limits would be conducted to insure no migratory nesting birds are disturbed or destroyed if within the restricted time period. USFWS allows this option to comply with the MBTA.
- Construction limits would be clearly identified in the field prior to construction to ensure the permitted project footprint is not exceeded during construction;
- The contractor would place geotextile fabric prior to the placing fill;
- Construction equipment movement would be restricted to within the identified project boundaries to minimize disturbance to native vegetation and wetlands;
- Stockpiles would not occur in wetlands that are not proposed for permanent fill placement and would be covered to protect from storm water runoff;
- All refuse, garbage, or debris created in the course of activities would be containerized to minimize wildlife attraction, and removed and disposed of in an approved facility.

## 7.0 List of Preparers

The people primarily responsible for developing or the review of this EA are listed below.

| NAME            | TITLE  | CONTRIBUTION                      | RELEVANT EXPERIENCE                                      |
|-----------------|--|-----------------------------------|--|
| Arran Forbes    | Environmental Permitting, Restoration Science & Engineering, LLC | Primary Author                    | 6 years environmental impact analysis experience         |
| David Nyman     | Environmental Engineer, Restoration Science & Engineering, LLC   | Secondary Author                  | 30 years engineering, permitting, and project management |
| Shane Blanchard | Civil Engineer, CRW  | Design Support                    | 15 years engineering, permitting, and project management |
| Mark Boydston   | Environmental Impact Analyst, ADOT&PF                            | Content Review and Design Support | 12 years environmental impact analysis experience        |

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