

Preliminary Environmental Research

Cordova Airport Runway Rehabilitation (State DOT&PF Project No.: NFAPT00654)

Cordova Airport Fence Installation (State DOT&PF Project No.: NFAPT00664)

Preliminary research has been conducted using the most current available data from state and federal agencies to identify environmental resources within the project area or both projects. The purpose of the preliminary research is to assist in identifying permitting and regulatory requirements for each project and ensure all environmental considerations are used in developing the proposed project.

Environmental resources were identified in accordance with Federal Aviation Administration's (FAA) Environmental Impacts: Policies and Procedures Order 1050.1F and FAA's National Environmental Policy Act Implementing Instructions for Airport Actions Order 5050.4b.

The following resources are not present in the project area:

Coastal Zone: The Coastal Zone Management Act of 1970 is intended to protect both freshwater and marine coastal areas from environmental degradation. It applies to all lands on the boundary of any ocean or arm thereof, and the Great Lakes. The Coastal Barrier Resources Act and the Coastal Barrier Improvement Act only applies to selected geographic areas designated as "Coastal Barrier Improvement Act System Units." As of July 1, 2011, Alaska withdrew from the voluntary National Coastal Zone Management Program. Additionally, no work is proposed along any coastline.

Threatened or Endangered Species: According to the USFWS's Information for Planning and Conservation (IPaC) decision support tool, there are no species listed as threatened or endangered under the Endangered Species Act (ESA) that occur within the project area (USFWS 2023a).

Farmland: There are no farmlands of prime, unique, or statewide importance designated in Alaska and soils of local importance are confined to the Kenai Peninsula, Matanuska-Susitna Valley, and the Greater Fairbanks area. No national or state designations have been made in Alaska. Therefore, no farmlands of prime, unique, or statewide importance are present in the project area.

Wild and Scenic Rivers: No Wild and Scenic Rivers are located within proximity of the proposed project (National Wild and Scenic Rivers System 2023).

The following resources are present or are relevant in the project area:

Air Quality

According to Alaska Administrative Code (AAC) 18 AAC 50, Cordova and Eyak (nearest communities) are considered Class II areas. As such, there are designated maximum allowable increases for particulate matter 10 (PM₁₀) micrometers or less in size, nitrogen dioxide, and sulfur dioxide. Activities in these areas must operate in such a way that they do not exceed listed air quality controls for these compounds (Alaska Department of Environmental Conservation [ADEC] 2022a).

Neither project area is not located within or near an area defined by ADEC as a Nonattainment or Maintenance Area, or within an area that regularly exceeds or is near violating the health-based National Ambient Air Quality Standards. The community is not on the Alaska Department of Environmental Conservation's (ADEC) list of impaired communities for particulate matter of 10 microns or less (PM₁₀), primarily from dust, nor for 2.5 microns or less (PM_{2.5}), primarily from woodsmoke. Neither community is included on the list of communities reporting people are highly affected by dust (PM₁₀) on the 2010 Rural Dust Survey (ADEC 2023a).

Biological Resources

The project area is within an ecoregion (Coastal Western Hemlock-Sitka Spruce Forests) that has the

mildest winter temperatures in Alaska and heavy precipitation (Gallant et al. 1995). The area is characterized by deep narrow bays, steep valley walls, irregular coastline, alluvial fans, floodplains, outwash plains, river terraces and deltas of the mountains.

The project area is adjacent to Prince William Sound and is due to the relatively long growing season, high annual precipitation, and mild temperatures there is a large variety of coastal forest, scrub, and wetland communities present. The project area is also within the larger Copper River Delta area, a critically important stopover, nesting and feeding area for migratory birds as it supports the largest spring concentration of shorebirds in the western hemisphere and the Copper River supports a marine commercial gillnet fishery near the mouth of the river plus in-river subsistence, personal use, and sport fisheries (ADF&G, 2006).

The landscape surrounding the airport is characterized by muskeg and black spruce bogs and wetlands, floodplains characterized by willow shrubs, dynamic streams, and forests characterized by Sitka spruce and hemlock. Dredge ponds line both sides of the main runway and are connected to the streams. The landscape surrounding both materials sites is largely forested or disturbed from past excavation activities.

Fish

A review of the Alaska Department of Fish and Game (ADF&G) Catalog of *Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes* identified three anadromous stream systems that intersect airport facilities (ADF&G 2023) (Figure 5):

- Scott River¹ (#212-10-10030), located to the west of Runway 09, includes a small ephemeral channel (East Braid), supports coho and sockeye salmon (*Oncorhynchus kisutch* and *O. nerka*), cutthroat trout and Dolly Varden Char (*O. clarkia* and *Salvelinus malma*)
- Runway Creek (# 212-10-10020-2007-3022-4031), originates north of the main airport facilities near Cabin Lake Road and then flows under the main runway, supports coho rearing habitat
- Sheridan River (# 212-10-10020-2007-3022) flows to the north and east of the runway and also supports coho rearing habitat.

Runway Creek and the Sheridan River are tributaries of the Glacier River and converge approximately 1 mile south of Runway 09/27.

To support anticipated in-water work of these stream systems, an Essential Fish Habitat Assessment is being conducted.

Eagles and Eagle Nests

According to the US Fish and Wildlife Service (USFWS), the nearest documented bald eagle nests are to the south and north of airport facilities, with the nearest nest approximately ¾ mile south of the runway (USFWS 2023b). A nest survey is being conducted Summer 2023. If an eagle or eagle's nest is identified within 660 feet of a project area, consultation with USFWS may be required. The project would follow guidance outlined in the *National Bald Eagle Management Guidelines* (USFWS 2007).

Migratory Bird Habitat

According to USFWS's IPaC decision support tool, there are four migratory birds of concern potentially within the project area:

¹ This is referred to as "Little Glacier Slough" in the ADF&G catalog, however it and other streams in the project area have had conflicting names by various agencies, therefore a new naming convention is being proposed for use in this project as shown in Figure 5.

1. Black oystercatcher (*Haematopus bachmani*): Habitat includes rocky seacoasts and islands, less commonly sandy beaches.
2. Lesser yellowlegs (*Tringa flavipes*): Common breeders in boreal forest and forest/tundra transition habitats. Wintering habitat use varies with rainfall; tidal flats may be frequented during the dry season, while adjacent shallow lagoons and marshes are used during the rainy season. Nests are depressions in the ground or moss, lined with dry grass, decayed leaves, spruce needles, and moss and twig fragments. Lining materials are taken from the immediate vicinity of the nest.
3. Olive-sided flycatcher (*Contopus cooperi*): Breeds in montane and northern coniferous forests, at forest edges and openings, such as meadows and ponds. Winters at forest edges and clearings where tall trees or snags are present. The nest is an open cup of twigs, rootlets, and lichens, placed out near tip of horizontal branch of a tree.
4. Rufous Hummingbird (*Selasphorus rufus*): Typically breeds in open or shrubby areas. During their migration, look for Rufous Hummingbirds in mountain meadows up to 12,600 feet elevation. The female builds the nest alone using soft plant down held together with spider web, and camouflages the outside with lichen, moss, and bark. They put their nests up to 30 feet high in coniferous or deciduous trees, hidden in drooping branches.

To avoid adverse impacts to migratory birds, vegetation clearing will follow the USFWS Recommended Time Periods for Avoiding Vegetation Clearing in as well as the most appropriate clearing methods to avoid impacts to nesting migratory species (USFWS 2020).

The following vegetation clearing avoidance periods apply:

- Forest or Woodland and Shrub or open habitat- May 1 through July 15

If working in shrub or open habitat (i.e. marsh, pond, tundra, gravel, or other treeless/shrubless ground habitat) the following time periods to avoid vegetation clearing may be expanded where the following species are present:

- Raptors which may nest two or more months earlier than other birds.
- Canada geese and swans which begin nesting April 20.
- Black scoters which are known to nest through August 10.

Department of Transportation Act, Section 4(f)

The Copper River Delta State Critical Habitat Area (CHA) surrounds the airport on its east, west, and south sides. All project activities are planned to occur wholly within the airport boundary or other state land which are outside the CHA.

Review of the U.S. Bureau of Land Management, U.S. Forest Service, National Park Service, and the Alaska Department of Natural Resources (ADNR) websites indicate there are no other state Recreation Areas, or public parks in the vicinity of the proposed project other than the CHA (USFWS 2023c). Additionally, a review of the ADNR Office of History and Archaeology Alaska Heritage Resource Survey (AHRs) indicates there are no known Historic Properties within or adjacent the project area.

Hazardous Material, Solid Waste, and Pollution Prevention

Part of the due diligence for any construction project is to identify potentially contaminated sites in order to avoid excavating where soil disturbance is prohibited and to avoid unknowingly subjecting a contractor to hazardous materials.

To understand these risks, a search of the Alaska Department of Environmental Conservation (ADEC) contaminated sites database was conducted resulting in 15 contaminated sites 1,500 feet of project

limits, as summarized in Table 1 (ADEC, 2023b):

Name	Hazard ID	Location	Status
FAA Cordova FLQ Bldg. 100	1853	Airport	Cleanup Complete
FAA Cordova Shop Site Bldg. 304	1023	Airport	Institutional Controls
FAA Cordova Warehouse #203	2080	Airport	Cleanup Complete
USCG Cordova AVSUFAC	23073	Airport	Institutional Controls
ADOT&PF Cordova Airport ARFF Bldg	27304	Airport	Active
<i>ADOT&PF Cordova Airport Sitewide PFAS</i>	<i>27114</i>	<i>Airport</i>	<i>Informational</i>
Eyak NALEMP Cordova Air Field Garrison and Staging Area	26856	Sheridan M.S.	Active
FAA Cordova Carpenter's Bldg. 606	2604	Airport	Cleanup Complete
FAA Cordova COMSERFAC Lot	2081	Airport	Institutional Controls
FAA Cordova FLQ Bldg. 104	2079	Airport	Institutional Controls
FAA Cordova FLQ Bldg. 105	2078	Airport	Cleanup Complete
FAA Cordova Localizer Facility	2083	Airport	Cleanup Complete
FAA Cordova UST 2	27282	Airport	Active
FAA Cordova Vehicle Fuel Pump Area	2086	Airport	Cleanup Complete
FAA Cordova Water House Bldg. 601	2084	Airport	Cleanup Complete

They include sites with a status of “Active” and four with a status of “Cleanup Complete” but with Institutional Controls (IC). Seven sites have a status of “Cleanup Complete,” which occurs when ADEC is satisfied that cleanup is complete and remaining contamination is below statutory cleanup levels. One site has a status of “Informational.”

An IC is instituted when contamination remains above the established cleanup levels without an unacceptable risk to human health or the environment. Sites with ICs usually require coordination with ADEC if construction is on or immediately adjacent to the site boundary. ICs may also be implemented when contaminants remain after cleanup is completed to the extent practical. High-risk site IC types include equitable servitudes, conservation easements, and compliance orders. Lower-risk sites may have public informational IC types, including deed notices, ADEC online database notations, and letters to the landowner.

On-going consultation with ADEC will be conducted during the design phase to determine if contamination may be present and whether mitigation measures will need to be implemented during construction.

PFAS

Two sites (Hazard IDs: 27114 and 27304) have been investigated for contamination from polyfluoroalkyl substances (PFAS) and the project will be developing a site-specific work plan to describe sampling and site characterization activities related to PFAS. Locations selected for sampling will likely require excavation and involve implementing a contaminated media management plan (CMMP) during construction, depending on the presence of PFAS contamination.

Historical, Architectural, Archaeological, and Cultural Resources

Based on the nature of the proposed project, a preliminary area of potential effect (APE) includes any areas within Cordova airport property subject to construction and/or ground disturbing activity, including but not limited to embankment construction and expansion, drainage improvements, access road construction, and vegetation clearing. The preliminary APE will also include the two identified material source(s).

A review of the ADNR AHRS mapper shows the project area contains 18 recorded sites, 12 of which have been determined ineligible for listing on the National Register of Historic Places (NRHP) and six have not been evaluated for eligibility for listing on the NRHP.

Initiating consultation with the ADNR's State Historic Preservation Office (SHPO) and other consulting parties per Section 106 of the NHPA will be required during development of the environmental document. Furthermore, once the Section 106 process has determined if any properties eligible for listing on the National Register of Historic Places (NRHP) are present within the area of potential effect, these historic properties will need to be evaluated under Section 4(f) of the Transportation Act and an applicability determination will need to be completed.

Land Use

Except for the Flag Point material site, the project area is wholly located within existing airport property boundaries and owned by DOT&PF. Designated land use adjacent to the airport boundary is undeveloped land. The Copper River CHA is adjacent to the airport's southern property boundary. The Sheridan material site and staging area are also owned by DOT&PF. The Flag Point material site is on land owned by the Alaska DNR.

Natural Resources and Energy Supply

To complete airport upgrades, gravel from two active gravel sources will be transported to the site. Expansion of each material site outside of existing disturbance may occur.

Noise and Noise Compatible Land Use

The existing airport is designated as suitable for use by large aircraft with FAA. Existing noise sources in the area are primarily associated with the airport. Existing land use surrounding the airport is undeveloped and minimal conflict between noise and compatible land use is anticipated. A noise analysis is not required, as the proposed airport improvements are not being done to accommodate larger aircraft, and the project is not anticipated to trigger a change to the aircraft fleet mix. The project area is adjacent to land within the Copper River CHA, a section 4(f) resource, where special consideration may need to be given to the evaluation of the significance of noise impacts in this area.

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

The population served by the project includes the communities of Cordova and Eyak, however the nearest residential area is more than four miles away. According to the EPA Environmental Justice Screening and Mapping Tool, 39% of the population in Cordova and Eyak are considered "People of Color" and 10% is considered "Low Income," which is lower than both the state and national averages, therefore no EJ populations are present (EPA, 2023). Overall socioeconomic impacts will be considered as part of project NEPA documentation.

Water Resources

Wetlands and Waters of the U.S.

A review of the USFWS National Wetland Inventory (NWI), existing wetland mapping from 2005 and 2006 and recent aerial imagery indicates the presence of extensive palustrine wetlands and Waters of the U.S. within the project area.

Wetlands and streams within the project area flow into two large river systems which drain into Prince William Sound and are thus subject to Clean Water Act (CWA) jurisdiction. A wetland delineation will be completed during the summer of 2023 to verify wetland types, boundaries, and functions and values, which will be described in the NEPA documentation. An individual permit through Section 404 of the CWA is anticipated for the fence rehabilitation project.

Floodplains

The airport and material sites are not located within regulatory floodplains as the airport is classified as Zone D by the Federal Emergency Management Agency (FEMA), defined as “Area with Undetermined Flood Hazard” (FEMA 2023).

Surface Waters/Navigability

A review of the ADNR Alaska Mapper - Navigable Waters website, the USACE, and the U.S. Coast Guard (USCG) navigable water lists, shows that DNR considers the main stem of the Sheridan River as being navigable and the USACE and USCG consider the Copper River as navigable for its entire length (ADNR 2023, USACE 2023, USCG 2013). The project will not include work near, or within the Copper River or within the main stem of the Sheridan River.

Groundwater

The airport is built on a lateral moraine and outwash plain between two glacial rivers and groundwater is generally between 5-7 feet below ground surface (DOT&PF 2006). A review of ADEC Drinking Water Protection Areas identified two protected drinking areas for the Alaska Airlines groundwater well (PWSID AK2299068) on airport property, but they are both outside of project limits (ADEC 2023c).

Climate Change

The project area climate is maritime and characterized by cool summers and mildly cold winters, with moderate to heavy precipitation throughout the year. The average frost-free season is approximately seven months (Gallant 1995). Projected impacts to the Cordova area from climate change include an estimate increase in winter temperatures by three degrees, Celsius, resulting in more precipitation falling as rain rather than snow (USDA, 2015). Watersheds that historically developed a seasonal snowpack will experience a trend from snow to rain, resulting in more rapid runoff in winter and early spring when snow usually falls, and lower late-spring and early-summer flows owing to reduced snowmelt. Additionally, glaciers are melting at unprecedented rates and models predict up to a 40 percent increase in glacial river runoff from Alaska rivers by 2050 (Prince William Sound Science Center [PWSSC], 2023).

The project is not anticipated to increase the frequency or size of aircraft using the airport, therefore any Greenhouse Gas Emissions resulting from the project will be temporary due to construction activity. The addition of a road along the fence may result in lengthier trips for maintenance vehicles, the additional carbon dioxide from extended maintenance routes for one or two vehicles would be evaluated. Carbon dioxide (CO₂) emissions from heavy machinery such as excavators, dozers, loaders, smooth drum rollers, sheep's foot roller, ski loader, rock trucks, dump trucks, blade motor grader, and other equipment will be evaluated in the Environmental Assessment for the runway project.

Design of culverts will follow modeling to ensure accommodation of changes to flow and precipitation from climate change are accounted for.

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