

APPENDIX A

Preliminary Research Results

Contaminated Sites, Spills, and Underground Storage Tanks (USTs): A Phase I Environmental Site Assessment (ESA) was conducted by DOWL Engineering for the project area and will be incorporated into the environmental document. The ESA Phase I report for the airport was completed in February 2005.

A review of the Alaska Department of Environmental Conservation (ADEC) UST Database found no USTs in the Chalkyitsik area. The ADEC leaking underground storage tank (LUST) database indicates no sites occur in the Chalkyitsik area.

The ADEC Spills Database from December 23, 2004, reports two spills in the Chalkyitsik area (Table 1). No additional records were available regarding the 14-gallon diesel fuel spill, but it is assumed the spill was adequately cleaned up and would pose little risk to any subsurface work that may be planned for the airport.

Table 1: Spills Sites near the Chalkyitsik Airport

ADEC Spill #	Spill Date	Date Case Closed	Responsible Party	Location	Substance	Gallons Released	Cause
02309928901	10/6/2002	Transferred to CSITES	Yukon Flats School District	Chalkyitsik CDP, Chalkyitsik School	Diesel	732	Heating Tank Overfill
	8/14/1998	?	Northern Air Fuel/Chalkyitsik	Chalkyitsik CDP, Chalkyitsik School	Diesel	14	Valve Failure

A review of the ADEC contaminated sites database found one site listed for the Chalkyitsik area. That site is near the Chalkyitsik school and resulted from the spill in October 2002 reported in Table 1, above. That 732-gallon diesel spill was cleaned-up and the contaminated soil stockpiled. However, when DOWL Engineering reviewed this contaminated site during the Phase I assessment they found that "...During the site reconnaissance conducted August 4, 2004 the stockpiled soil reported in ADEC records was observed north of the [airport] apron. Polyethylene tarps inadequately covered the stockpiled soil leaving it exposed to the weather and increasing the risk of fuel-laden sediments being transported toward the airport. Several silt fences were observed on a short access road connecting the spill site with the apron, apparently in place to inhibit the passage of silt-laden runoff from the stockpile area. It is DOWL estimation that the location of the spill presents an increased level of environmental risk of encountering contamination during subsurface work on the north end of the apron."

Historical, Archaeological, and Cultural Properties: A review of the *Alaska Heritage Resources Survey* (AHRs) indicates there are three historic properties in the vicinity for the project area. The following sites are known sites located in the AHRs database:

- Chalkyitsik (Julitsik, Fishhook) (BLR-00001): Village site; Tranjik-Kutchin Indian name report to mean "to fish with a hook, at the mouth of the creek."

- Marten Hill, Chalyitsik Quarry Rim (BLR-00038): Artifacts were found (projectile points, chert biface fragment, chert flakes, bone flakes) in disturbed areas of an alluvial terrace remnant that had been mined for gravel. Indications of undisturbed cultural deposits, potential for faunal preservation, and datable material were revealed in an exposed soil section. A small cemetery also noted on the terrace.
- Chalkyitsik Runway (BLR-00039): Site is located on high ground overlooking Marten Lake and Chalkyitsik Slough and consists of scattered surface lithics that are not apparently culturally/chronologically diagnostic. The lithics may have been originally brought to the location during gravel operations connected with the airport. The nearest gravel sources is a known archaeological site (BLR-00038).

An archaeological and cultural survey will be conducted) in spring 2005, in the area north and east of the runway, and in material sites 1, 2, and 7 (before vegetation green-up), as recommended by the State Historic and Preservation Office (SHPO).

Coastal Zone Management: A review of the *Coastal Zone Boundaries* atlas found that the project area is not located within the coastal zone for Alaska (www.alaskacoast.state.ak.us/GIS/boundary.htm).

Navigability, Floodplain Management, and Wetlands: The USACE Navigable Waters web page (www.poa.usace.army.mil/reg/NavWat.htm) indicates that no navigable waters are in the vicinity of the project area.

Chalkyitsik does not participate in the National Flood Insurance Program, but some flood hazard information is available for the project area from the USACE flood hazard webpage (www.poa.usace.army.mil/en/cw/fld_haz/allakaket.htm). That information indicates that the last recorded flood event was in 1997 and that flood events in the area are primarily caused by ice jams. Significant flooding occurred in 1937, 1947 or 1948, and 1967. The 100-year flood level elevation is estimated at 110 ft, which is about 3 ft higher than that recorded for the 1967 flood event. The elevation datum is based on the Bench Mark #1, elevation 100.0 ft, of the NWS slope gage.

A wetlands survey of the project area was conducted in summer 2004 and a draft report was completed in December 2004 and submitted to ADOT&PF for review. The preliminary results of that survey (see [Figure 3](#)) indicate that wetlands of various types do occur in the project area. Wetlands, dominated by Sedge-Scrub Bog, accounted for 31% of the mapped area, with uplands, primarily white spruce and aspen forests, accounting for the remaining 69%. Should any dredge/fill be required in wetlands for this project, the appropriate permits would be acquired before construction.

Threatened and Endangered Species: The list of federally listed threatened and endangered species maintained by the U.S. Fish and Wildlife Service (USFWS) was consulted to determine if listed species are of concern in the Chalkyitsik area. No species on the list occur within the project area.

Anadromous Fish Stream: A search of the ADFG *Atlas to the Catalog of Waters Important to the Spawning, Rearing or Migration of Anadromous Fishes* identified one anadromous fish stream in the Chalkyitsik area: the Black River (ADFG Stream #334-45-11000-2001-3050-4040). The Black River supports populations of three anadromous fish species: king, chum, and coho salmon. The Black River flows past the village of Chalkyitsik, but the airport is actually located

near an old oxbow that is not directly connected to the river itself, except during high-water flood events. Thus, proposed activities at the airport are unlikely to directly affect the Black River.

Essential Fish Habitat: The Black River supports anadromous fish populations and thus any activities that may involve the river, such as gravel acquisition, would fall under the regulations for Essential Fish Habitat (www.fakr.noaa.gov/habitat.efh.htm). Currently no such activities are deemed necessary, however, were activities planned that affected the river, the National Marine Fisheries Service would be contacted for consultation.

National Wildlife Refuges: The USFWS refuge website (www.r7.fws.gov/refuges.cfm) indicates that the village of Chalkyitsik lies within the Yukon Flats National Wildlife Refuge (NWR). The village, as well as the Native regional corporation, Doyon Ltd., owns land within the Yukon Flats Refuge. These lands were conveyed to the Native peoples under the Alaska Native Claims Settlement Act (ANCSA).

National Parks, Preserves, Monuments, and Wild and Scenic Rivers: The National Park Services website (www.nps.gov/carto/PDF/AKPAAMap1.pdf) was reviewed to determine if any National Parks, Preserves, Monuments, or Wild and Scenic Rivers exist in the proposed project area. No sites were indicated.

State Parks, State Refuges, Critical Habitat Areas, and Sanctuaries: A review of the ADF&G publication, *State of Alaska Refuges, Critical Habitat Areas and Sanctuaries* found that no State Refuges, Critical Habitat Areas, or Sanctuaries occur in the proposed project area. No state parks are located in the project area.

State and Local Land Use Plans: The village of Chalkyitsik is not within a region of the state for which the Alaska Department of Natural Resources (ADNR) has prepared a land use plan.