
APPENDIX D

LAND STATUS REPORT



Note: The *Kotzebue Airport Relocation Feasibility Study: Land Status Report* prepared by McClintock Land Associates, Inc is a stand-alone report. A portion of the report is included here. Please see the full report for associated exhibits and reference materials.



KOTZEBUE AIRPORT RELOCATION FEASIBILITY STUDY LAND STATUS REPORT

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State of Alaska Department of Transportation and Public Facilities
AKSAS PROJECT NO: 61317

INTRODUCTION

The Alaska Department of Transportation and Public Facilities (ADOT&PF) funded a project to examine the feasibility of relocating the Kotzebue Airport, known as Ralph Wien Memorial Airport. Kotzebue Airport is a regional hub in northwestern Alaska that serves 11 area communities with an expanding need for air transportation for the supplies, fuel, and passengers. The objective of this study is to examine Cape Blossom and other potential relocation sites to determine the costs, benefits and potential impacts of the relocation.

This project will provide a basis for an update to the Kotzebue Airport Master Plan and provide guidelines for future airport development that will address aviation demand in a financially feasible manner, while at the same time resolving the aviation, safety, capacity, environmental, and socioeconomic issues existing with this regional airport and the Kotzebue community.

This report will identify existing land interest, ownership of adjacent property, rights-of-way, and other land settlement agreements in the project area. Documented present and future land use and any existing conflicts on and adjacent to the potential relocation sites are also provided.

A land use inventory summarized on an excel spreadsheet includes all ANCSA conveyance documents, U.S. Surveys, BLM and State Master Title Plats, recorded plats and subdivisions, agreements, leases, rights-of-way, 17(b) easements, and Native Allotment certifications for land actions within the project area. All documents are provided in PDF format and hard copy. Information on planned and proposed land uses, potential conflicts on and adjacent to the three areas identified for the potential airport relocation sites is summarized, but is supplemental to information provided by the community through meetings and questionnaires. General airport documents including leases, deeds, property plans, and easements are included and supplement those already gathered by DOT's contractor. All land status information is based on the most current federal, state and officially recorded documents.

An assessment of land use compatibility issues affecting the optimal airport location (as it relates to documented land status) and potential actions is provided. The inventory, land status summary and land status map are intended to assist in the Airport Site Selection.

COMMUNITY PROFILE

Kotzebue is located on a 3-mile long sand spit at the end of the Baldwin Peninsula in Kotzebue Sound, 26 miles above the Arctic Circle. The community lies at approximately 66.898280° North Latitude and 162.59585° West Longitude. (Section 3, Township 17 N., R. 18 W, Kateel River Meridian.) The community is bordered by Kotzebue Sound to the west and Hotham Inlet (locally referred to as “Kobuk Lake”) to the east. Hotham Inlet meets Kotzebue Sound that is part of the Chukchi Sea. The general area encompasses 27.0 square miles of land.

Kotzebue serves as a regional center for villages in the Northwest Arctic Borough and one in the North Slope Borough. Kotzebue Sound was named after Russian explorer Otto von Kotzebue who 'discovered' it in 1818. The site was the hub of ancient arctic trading routes for local Natives as well as Russian Natives across the Bering Straits for hundreds of years. A post office was established in 1899.

The local name for the site is Kikiktagruk and is believed to have been occupied by Iñupiat Eskimos for at least 9,000 years. It may be one of the oldest settlements in both North and South America. Kotzebue had a 2005 population of 3,205 and has an annual growth rate of 3.99%. Approximately 70-75% of the population is Native Alaskan (Iñupiat Eskimo). The community is highly dependent upon a traditional subsistence lifestyle as a supplement to their income.

**LAND STATUS OF PROPERTIES WITHIN THE PROPOSED AIRPORT
BOUNDARIES FOR THE PROPOSED KOTZEBUE AIRPORT**

The mapping limits for the Kotzebue Airport Photogrammetry and Mapping Project covers an area within:

Township 14 North, Range 16 West, Kateel River Meridian
Township 15 North, Range 16 West, Kateel River Meridian
Township 15 North, Range 17 West, Kateel River Meridian
Township 15 North, Range 18 West, Kateel River Meridian
Township 16 North, Range 16 West, Kateel River Meridian
Township 16 North, Range 17 West, Kateel River Meridian
Township 16 North, Range 18 West, Kateel River Meridian
Township 17 North, Range 16 West, Kateel River Meridian
Township 17 North, Range 17 West, Kateel River Meridian
Township 17 North, Range 18 West, Kateel River Meridian
Township 18 North, Range 17 West, Kateel River Meridian
Township 18 North, Range 18 West, Kateel River Meridian

The land status is described below and is depicted on the enclosed map.

EXISTING LAND OWNERSHIP AND AGENCY JURISDICTION

Land Ownership

The primary landowners within the project area are Kikiktagruk Inupiat Corporation (KIC), NANA Regional Corporation (NANA) and Native Allottees. KIC is the Native Village Corporation for the village of Kotzebue which incorporated and organized in 1973 in accordance with Section 8 of the Alaska Native Claims Settlement Act (ANCSA), as amended, Public Law 92-203, 85 Stat. 688, 43 U.S.C. 1601 et. seq., and the laws of the State of Alaska. KIC is headquartered in Kotzebue, Alaska and has 1,953 shareholders.

Agency Jurisdiction

The Northwest Arctic Borough (NAB) was formed in June 1986 and is a home rule borough and is the local political subdivision of the State of Alaska. The Borough encompasses approximately 36,000 square miles and is the second largest borough in Alaska. Kotzebue is the largest village in the Borough. As a home rule borough with planning and zoning authority, the NAB is responsible for issuing permits for most projects in or affecting lands within the Borough. Title 9 of the NAB Code provides the authority for the NAB to guide, control, regulate and prohibit future development of land within the Borough in accordance with its land use policies and the NAB Comprehensive Plan. The Borough also uses the Title 9 permit review process to implement the policies and standards of the Coastal Zone Management Program (CZM.) According to the Borough Planning Director, the proposed area is in a Subsistence Conservation Zone, however, there are exceptions made for development.

The Bureau of Land Management has interim jurisdiction of lands that have been selected but not conveyed to KIC and NANA.

The Bureau of Indian Affairs (BIA) has trust responsibilities over Native Allotments held in restricted title. The Kotzebue IRA Council has undertaken the trust functions for Native Allotments around Kotzebue under a Public Law 93-638 Contract with the BIA. The Realty program provides information, counseling, and other assistance to Alaska Natives concerning pending Native Allotment claims, forest management, general land management, property rights, probate matter, and wills.

KIKIKTAGRUK INUPIAT CORPORATION

KIC has an original land entitlement of 161,280 acres pursuant to the terms of ANCSA §12(a) from the United States Government. KIC also received an additional selection entitlement of 1,020 acres of land under ANCSA 12(b). The 12(b) entitlement is often referred to as the “second-round selection” of land that is allocated from NANA Regional Corporation (NANA) out of its 12(b) pool of 208,392 acres of land. These lands have been selected, but are not yet conveyed.

KIC’s total ANCSA entitlement is 162,300 acres of surface estate. KIC also over-selected land within its ANCSA withdrawal area and those lands are called 12(c) selections.

KIC has received the majority of its ANCSA entitlement of surface land through both Interim Conveyance and Patent from the Bureau of Land Management. Under the terms of ANCSA, the KIC is entitled to the surface estate, while NANA receives rights to the subsurface estate.

The title that KIC receives is subject to specific exceptions and reservations to the United States from the lands granted, including the subsurface estate, ANCSA 17(b) easements, valid existing rights, requirements, third party interests created by the U.S. Government pursuant to ANCSA Section 14(g), and requirements of ANCSA 14(c).

NANA received 1,050,667 acres of land and related subsurface rights, according to the most recent NANA estimates. Villages in the NANA region are entitled to select over 1.4 million acres of land. NANA also selected land under ANCSA 14(h)(8), that are referred to as “in lieu selections.” NANA receives the surface and subsurface estate of these lands. ANCSA 12(c) is land over-selected by KIC to which NANA will receive the subsurface.

KIC ANCSA Land Ownership

KIC received title to the surface estate of certain real property located within the following lands around Kotzebue from the Bureau of Land Management (BLM). These conveyances are specific to the project area:

Interim Conveyance 004

The surface estate of Interim Conveyance 004 was issued to Kikiktagruk Inupiat Corporation and recorded in Book 5, Pages 574-583 on July 12, 1977.

Interim Conveyance 024

The surface estate of Interim Conveyance 024 was issued to Kikiktagruk Inupiat Corporation and recorded on December 29, 1975.

Interim Conveyance 062

The surface estate of Interim Conveyance 062 was issued to Kikiktagruk Inupiat Corporation and recorded on July 6, 1977.

Interim Conveyance 544

Surface estate of Interim Conveyance 544 was issued to Kikiktagruk Inupiat Corporation on September 2, 1982.

Interim Conveyance 759

The surface estate of Interim Conveyance 759 was issued to Kikiktagruk Inupiat Corporation and recorded on December 5, 1983.

Interim Conveyance 1364

Surface estate of Interim Conveyance 1364 was issued to Kikiktagruk Inupiat Corporation on September 15, 1988.

Interim Conveyance 1404

Surface estate of Interim Conveyance 1404 was issued to Kikiktagruk Inupiat Corporation on December 14, 1987.

Interim Conveyance 1359

The surface estate of Interim Conveyance 1359 was issued to Kikiktagruk Inupiat Corporation on September 21, 1987.

Interim Conveyance 1556 & Corrected Interim Conveyance 1892

The surface estate of Interim Conveyance 544 was issued to Kikiktagruk Inupiat Corporation and recorded on September 2, 1982 in Book 23, Pages 894 - 906. Corrected Interim Conveyance 1893 was issued on June 27, 2005 and recorded as 2005-000283-0 on July 5, 2005 to identify Native Allotments to be excluded.

Interim Conveyance 1627

The surface estate of Interim Conveyance 1627 was issued to Kikiktagruk Inupiat Corporation on August 1, 1995.

Interim Conveyance 1849

The surface estate of Interim Conveyance 1849 was issued to Kikiktagruk Inupiat Corporation on October 25, 2002 and recorded as 2002-000662-0 on November 22, 2002.

Corrected Interim Conveyance 1895

Surface estate of Interim Conveyance 1895 was issued to Kikiktagruk Inupiat Corporation on June 27, 2005 and recorded as 2005-000300-0 on July 6, 2005. This Interim Conveyance corrected I.C. 580 dated December 28, 1982 recorded in Book 24 beginning at page 663, Kotzebue Recording District.

Patent 50-82-0133

Patent for Surface estate was issued to KIC on September 22, 1982 and recorded in Book 23, Pages 914-918.

Patent 50-83-0025

Patent for Surface estate was issued to KIC on December 28, 1982.

Patent 50-83-0063

Patent for Surface estate was issued to KIC on February 8, 1983.

Patent 50-87-0130

Patent for Surface estate was issued to KIC on December 23, 1986.

Patent 50-88-0033

Surface estate of Patent was issued to KIC on December 21, 1987.

NANA REGIONAL CORPORATION, INC.

Interim Conveyance 545 & Corrected Interim Conveyance 1892

Corrected IC was issued to NANA Regional Corporation, Inc. for the subsurface estate and recorded as 2005-000295-0 on July 5, 2005.

Interim Conveyance 1893

Corrected IC of the subsurface estate was issued to NANA Regional Corporation, Inc. and recorded as 2005-000283-0 on July 5, 2005.

Corrected Interim Conveyance 1894

Corrective Interim Conveyance 1894 was issued for the subsurface estate to NANA Regional Corporation, Inc. on June 27, 2005 and recorded as 2002-000662-0.

Patent 50-82-0134

Patent 50-82-0134 for the subsurface estate was issued to NANA on September 2, 1982.

Patent 50-2003-0290

The surface and subsurface estate of Patent 50-2003-0290 was issued to NANA on June 4, 2003.

KIKIKTAGRUK INUPIAK CORPORATION ANCSA 14(c) OBLIGATION

ANCSA §14(c)

Under ANCSA §14(c), KIC is required to reconvey the surface estate of certain lands to individuals, organizations, municipal governments and airport operators. Section 14(c)(1) refers to land occupied as of December 18, 1971 as a primary place of residence, primary place of business, reindeer husbandry headquarters site, or subsistence campsite. ANCSA §14(c)(2) refers to non-profit organizations. ANCSA §14(c)(3) provides for conveyances to municipal governments for community expansion and §14(c)(4) refers to airports.

ANCSA §14(c)(1) & (2)

There are numerous 14(c)(1) subsistence campsites located throughout the mapping area. Concentrations of subsistence campsites are located on KIC land at the Noatak River, on Shesolik Spit, and the Little Noatak River. KIC has adjudicated all of these claims, mapped them, and staked them in the field. There are some claims whose boundaries are in conflict and the KIC Lands Department is still attempting to resolve them. The 14(c) claims are not yet surveyed by BLM, but are shown on the project map as adjudicated and staked.

ANCSA 14(c) claims are concentrated primarily in the core township, Township17 North, Range 18 West, Kateel River Meridian.

ANCSA §14(c)(3)

Pursuant to the terms of ANCSA §14(c)(3), all ANCSA village corporations are required to reconvey land to municipalities or to the State in Trust to meet present and foreseeable community use and expansion.

The provision states:

“the Village Corporation shall then convey to any Municipal Corporation in the Native village or to the State in trust for any Municipal Corporation established in the Native village in the future, title to the remaining surface estate of the improved land on which the Native village is located and as much additional land as is necessary for community expansion, and appropriate rights-of-way for public use, and other foreseeable community needs: Provided, That the amount of lands to be transferred to the Municipal Corporation or in trust shall be no less than 1,280 acres unless the Village Corporation and the Municipal Corporation or the State in trust can agree in writing on an amount which is less than one thousand two hundred and eighty acres; Provided further, That any net revenues derived from the sale of surface resources harvested or extracted from lands reconveyed pursuant to this subsection shall be paid to the Village Corporation by the Municipal Corporation or the State in trust: Provided, however, That the word "sale", as used in the preceding sentence, shall not include the utilization of surface resources for governmental purposes by the Municipal Corporation or the State in trust, nor shall it include the issuance of free use permits or other authorization for such purpose.”

ANCSA §14(C)(3) Agreement

KIC and the City of Kotzebue signed an agreement on May 17, 1996 in complete satisfaction of KIC’s ANCSA §14(c)(3) obligation. By this agreement, KIC agreed to convey land to the City to meet present and foreseeable public needs. KIC has prepared a draft ANCSA 14(c) Map of Boundaries (MOB), but it has not been submitted to the Bureau of Land Management. The 14(c)(3) agreement identifies the following land to be conveyed to the City of Kotzebue:

- A new landfill site consisting of 45 acres.
- Kotzebue Wastewater Treatment site consisting of 29.14 acres.
- Sewage lagoon parcel consisting of 13.25 acres.
- A watershed consisting of 350 acres.
- A waterline utility easement consisting of 6.26 acres.
- A waterline utility easement consisting of 8.52 acres.
- A water utility line consisting of 2.85 acres.
- Vortac Lake road right-of-way consisting of 10.90 acres.
- Cemetery road right-of-way consisting of 1.52 acres.
- A recreation parcel consisting of 5.00 acres.
- The watershed/utility corridor consisting of 650 acres.

ANCSA §14(c)(4)

ANCSA §14(c)(4) is the provision providing for the reconveyance of airports that existed as of December 18, 1971. KIC implemented this provision for portions of the Kotzebue airport. The provision states:

“the Village Corporation shall convey to the Federal Government, State, or to the appropriate Municipal Corporation, title to the surface estate for airport site, airway beacons, and other navigational aids as such existed on December 18, 1971, together with such additional acreage and/or easements as are necessary to provide related governmental services and to insure safe approaches to airport runways as such airport sites, runways, and other facilities existed as of December 18, 1971.”

ANCSA §14(c) Map of Boundaries and Survey

Bureau of Land Management (BLM) regulations in 43 CFR 2650.5-4, ANCSA require Corporations to prepare and submit Maps of Boundaries depicting lands qualified as ANCSA §14(c) reconveyances to BLM. The KIC ANCSA 14(c) Map of Boundaries is the official map that depicts the location of all 14(c) land to be surveyed by BLM. Part of the submittal process requires that all conflicts on 14(c) land be resolved prior to submittal. The day that BLM stamps the MOB is the date of filing and the day that BLM starts the one-year (1) ANILCA Section 902(b) Statute of Limitations time clock. The one-year Statute of Limitations must toll before BLM can issue final approval of the Map of Boundaries.

BLM can survey the land before the one-year Statute of Limitations tolls providing the Corporation submits a waiver letter agreeing to bear the cost of any additional surveys resulting from successful MOB challenges or appeals.

When all conflicts are resolved KIC will submit the final Map of Boundaries. All 14(c) interests have been identified in Kotzebue and are so depicted on the map.

LAND OWNERSHIP OF THE KOTZEBUE AIRPORT

Introduction

Ralph Wien Memorial Airport is situated on the northwest shore of Baldwin Peninsula and is intimately linked to the livelihood of the community. Alaska's vast expanse and unique geography, in addition to weather challenges, makes air transportation vital to the social and economic well-being of area residents.

Kotzebue is the regional hub and business center for the Northwest Arctic Borough. The community serves 11 area villages that generate considerable activity in and out of Kotzebue. The Ralph Wien Memorial Airport serves as the entry point to these smaller villages and is located less than a half-mile from the Kotzebue community center. While the current location provides convenient access, the location constrains future community expansion to the south. Kotzebue lacks a developed surface transportation system and marine access is seasonal in nature.

Currently, commuter and air taxi operators carrying both passengers and cargo, serve Kotzebue and its outlying villages from Ralph Wien Memorial Airport. Air carrier jet aircraft share the facility with small general aviation aircraft.

KOTZEBUE AIRPORT LAND STATUS ACTIONS

The following information summarizes major land status actions regarding the current Kotzebue airport in a chronological sequence beginning in 1950. The Ralph Wien Memorial Airport was constructed in 1950 and was known as the Civil Aeronautics Authority Strip.¹ The State of Alaska prepared a property plan for the Kotzebue VORTAC Site A-1 on May 31, 1963. On June 24, 1963, the State filed application F-031367 for a right-of-way from BLM. On July 15, 1963, Airport Lease F-031466 was segregated from the public domain. BLM made a decision to create a

¹ Cape Blossom Road Deep Water Port Airport Relocation ; 2001

right-of-way (44 LD 513) to three adjoining sites and two connecting access roads required for the VORTAC facility on February 10, 1964. This decision was declared null and void within a Native Allotment in Section 22, T. 17 N., R. 18 W., K.R.M. and the right-of-way was no longer needed.

On February 11, 1964 FAA requested segregation of certain lands from the public domain for an access road and protection of the facilities to be constructed. A 20-year lease was requested by FAA. BLM decided at FAA's request to retain Parcel 1, containing the VOR facility for an area 300 feet by 1,500 feet in size on March 19, 1964. Public Land Order 3830 segregated the VORTAC facility on the same date.

Patent No. 1236260 was issued from BLM to the State of Alaska Department of Transportation (State) for Tracts 2, 3, 5, 6, 7, and 8 of USS 2645 on May 12, 1964. As a result of the States application for the Airport Lease, Tract A, FAA cancelled their request for Tract A.

PLO 3830 withdrew land for use by the Federal Aviation Administration (FAA) for the maintenance of their air navigational facility on September 17, 1965 and it later became subject to an ANCSA §3(e) determination under ANCSA. BLM granted a 20 year Public Airport Lease to the State on November 1, 1965 and it was renewed on December 20, 1979 for Tract V, Parcel A. Tract V was later deeded from KIC to the State under the provision of ANCSA §14(c)(4).

On August 25, 1982, KIC granted a perpetual Permit, Avigation and Hazard Easement and Right-of-Way to the State for 336.4 acres of land described as Tract V, Parcel A, VORTAC facility. This grant was made pursuant to an agreement (Modified Quitclaim Deed) made by KIC on the same day to grant this land to the State under §14(c)(4). There was language in the permit that the permit would affect existing use by the City of Kotzebue water project.

The watershed in the A&H Easement area was later promised for reconveyance to the City of Kotzebue under ANCSA §14(c)(3). This deed also contained a reverter clause that in the event the lands cease to be used for airport purposes, the title would revert to KIC.

General Airport Inventory

The Kotzebue Airport is located adjacent to and south of the City of Kotzebue, on an irregular-shaped parcel of 1,805 acres, of which 80 to 85% is water. Commercial aviation operations, the majority of general aviation tie-downs, and the associated paved apron area and taxiways are located in the northwest section of the Airport property. The Airport is owned and maintained by the State of Alaska, Department of Transportation and Public Facilities.

The mainland geology is comprised of ice rich, thaw unstable silts. Little development on the mainland has occurred due to poor soil conditions, combined with isolation from City facilities by the lagoon. However, the new road around the lagoon has provided improved access and some development is beginning to occur. The airport constrains development to the south on the spit, which has more favorable soil conditions for development.

Existing airport facilities include:

- Airfield
- Airspace and navigational aids
- Terminal area facilities and aircraft storage
- Ground access and vehicle parking
- Utilities
- Other support facilities

The primary runway 8-26 is over 5,900 feet in length and was paved in 1970. More than half of the runway length is constructed on fill in the lagoon to the east of Kotzebue Spit.

The cross wind runway has a gravel surface length of Runway 17-35 is 4,350 feet. The usable length was reduced to 3,800 feet to provide adequate safety area beyond each runway threshold, per FAA standards for runway safety area. Currently, there is an aircraft parking area along the west side of Runway 17-35 within the runway obstacle-free area.

Access

There are 26 miles of local gravel roads, used by cars, trucks and motorcycles during the summer. Snowmachines are preferred in winter for local transportation. Existing surface access to the Terminal Area from Kotzebue is by Third and Fifth Avenues. Third Avenue was paved in 1996, becoming the first paved road in Kotzebue. Access roads serve the existing terminal area buildings and air taxi operators.

The only road leading south from town passes through the Airport within the safety area of Runway 8. The road is used to access summer fish camps, the sanitary landfill, an Air Force radar site, and properties along the coast to the south. There is a gate controlling access to the airport operating area via this road, although it is not always used.

In 1997 the Bureau of Indian Affairs (BIA) funded the construction a new 3.7 mile, \$6 million road east of Kotzebue Lagoon to divert traffic around the airport runway and to serve the community as the link to the new solid waste facility. This road connects to Ted Stevens Way in the north and to the road through the airport to the south.

Land Use

The incorporated limits of Kotzebue encompass 26.5 square miles, of which less than one square mile is located on the spit north of the airport. Most of the higher land on the spit is developed, with remaining areas in lowlands subject to flooding. Nearly all new development in Kotzebue requires that fill be placed to make the lots suitable for building. Development within Kotzebue blends residential housing with commercial use. The City's planning commission is developing a land use plan to maximize use of remaining land on the spit.

The majority of land within the City limits is on the mainland east of the lagoon. This area is known locally as "The Hillside" where there is already one privately owned subdivision, with access roads and lots for sale. There have been several discussions concerning additional subdivisions in this area. A bridge connects the spit to the mainland, with a road approximately three miles long; access is provided to the City's main water source at Devil's Lake. This watershed and watershed corridors, the cemetery site, and recreational site in this area will eventually be conveyed to the City of Kotzebue by KIC, under the provisions of ANCSA 14(c)(3).

Floatplane Facilities

The Kotzebue Lagoon to the east of the runway serves as an unofficial floatplane landing area. Isaac Lake, to the south west of Runway 17-35, was previously used by floatplanes. KIC dredged this area and extracted gravel for prospective airport construction needs.

**STATE OF ALASKA DEPARTMENT OF
TRANSPORTATION & PUBLIC FACILITIES**

General information is provided on the Kotzebue airport, and supplements detailed airport information available through DOT&PF contractor, PDC Engineers, Inc.

General Airport Property

T. 17 N., R. 18 W., Kateel River Meridian

- Survey 2645, Tracts 5 and 8;
- Survey 2645, Tracts 5 and 8;
- Survey 2645, Tract 8;
- Survey 2645, Tracts 3 and 8;
- Survey 2645, Tracts 2, 3, 6 and 8;
- Survey 2645, Tracts 5 and 8;
- Survey 2645, Tracts 6, 7 and 8;
- Survey 2645, Tract 8 and U.S. Survey 3554

Access to Airport

Bison Street, Caribou Way and Ted Stevens Way from Third Avenue to Devils Lake were upgraded a distance of two miles. The upgrading included grade raising, widening, drainage and surfacing, as well as minor erosion protection in the tidal area near town. Bicycle and pedestrian traffic between town and the new BIA Hillside Road was also accommodated. The road serves as the sole road access to the City's water supply, cemetery and VORTAC site. It also provides access to recreation and subsistence gathering sites.

The Hillside Road connects Ted Stevens Way to the City's landfill, wind generation site, and to Cape Blossom, another popular recreation and subsistence gathering areas.

At the present time, public access to the landfill, wind generators and the Cape Blossom area is via a road that crosses a restricted area, an aviation and hazard easement of the Kotzebue Airport property. FAA and the Alaska Department of Transportation would like to terminate public access through the west end of Runway 08-26 for safety concerns. Continuing access across this restricted area represents a hazard to aviators and the public. The upgrade of Ted Stevens Way has created a viable alternative public access route to the Cape Blossom area.

Former Airport Lease/Avigation and Hazard Easement

KIC issued a Modified Quitclaim Deed (MQCD) to the State DOT/PF under ANCSA §14(c)(4) for Tract V, the former lease² for the clear zone for the Kotzebue Airport before it received title to this area. On August 25, 1982 KIC granted a perpetual Permit, Avigation and Hazard Easement and Right-of-Way to the State of Alaska Department of Transportation and Public Facilities to 336.4 acres of land described as Tract V, Parcel A, within Section 11, T. 17 N., R. 18 W, K.R.M. The FAA reserved the right of reasonable use and enjoyment of the lands described, to the extent that such use and enjoyment shall never interfere with the exercising of the easement and rights therein granted. There is a reversionary clause attached to this easement.

Because KIC had received title from the federal government in 1982 before it received Interim Conveyance, this MQCD clarified that KIC selected and will receive

² Airport lease F-031466 located within Secs. 11, 12, and 13, T. 17 N., R. 18 W., Kateel River Meridian, issued to the State of Alaska, Department of Transportation and Public Facilities, under the provisions of the act of May 24, 1928 (49 U.S.C. 211-214). This former lease was identified as a valid existing right in IC 544.

this tract as part of its ANCSA land entitlement. The State constructed and maintained the Kotzebue Airport as a public airport, and KIC agreed to segregate and convey Tract V, Parcel A-1 for the VORTAC site. This grant included a statement, "FURTHER, this PERMIT shall not affect existing use by the City of Kotzebue water project."

Since there were legal description problems, the Federal Aviation Administration commissioned a survey in 2000 to determine the exact location of the Kotzebue VORTAC site in relation to the existing restricted Native allotments in the area, particularly where the 2,000-foot radius from the VOR conflicts with the Allotments.

The survey verified that Parcel A-1, Tract V that KIC conveyed to the State of Alaska under 14(c)(4) did not contain the VORTAC site. The site may not be eligible for conveyance under 14(c)(4) as it does not meet the requirements of ANCSA law in its present location. The survey corrected the legal description for the 3(e) parcel to be retained by FAA.

During the effort to construct the Ted Stevens Way, the City of Kotzebue needed site control for a 100 foot road right-of-way. BLM reserved a 60-foot road under an ANCSA 17(b) easement. KIC owned the underlying interest of the 17(b) easement and had to use two legal descriptions to transfer the 100-foot road to the City of Kotzebue, one for the 60 foot 17(b) easement and another for an additional 40 feet. Since the VORTAC site has a 2,000-foot restrictive easement, KIC requested a waiver from FAA to grant the additional 40 feet needed for the road right-of-way for that portion of the road inside the excess 3(e) site.

EIN 75 C4, an easement reserved under ANCSA 17(b) restricts the use of lands within a 2,000-foot radius of the VOR antenna.

FEDERAL AVIATION ADMINISTRATION

Vortac Site

On January 14, 1977, FAA submitted an application for a 100-foot wide Right-of-Way (F-23302) in Kotzebue for the construction of an access road to the VORTAC facility. NANA and KIC issued letters of non-objection to FAA for the construction of a road (F-23302) on January 31, 1977.

On August 16, 1979, the PHS Department Health, Education and Welfare sent a letter to BLM requesting that an easement be reserved on lands that would soon be transferred to KIC and that BLM retain land under a 3(e) determination. The requests were made so that the City of Kotzebue could have access to its municipal potable water facilities for the purpose of use and maintenance. The VORTAC structures have been in use since 1970 and the Devil's Lake structure has been used since 1975. The structures requested for BLM retention include a 1,050 foot long compacted silt dam located in the FAA withdrawal, a 30x24 foot water heating plant located within 200 feet south of the dam, and the VORTAC reservoir. On December 20, 1979 BLM approved the grant of a Right-of-way Grant for 1,667.88 x 100 feet and serialized the reservation as F-23302.

The land status of the road beyond the Bridge was complicated by various Airport related withdrawals made over the years starting in 1964. The VORTAC site (PLO 3830) was withdrawn on September 17, 1965. Other infrastructure related to the construction of the VORTAC, including the road right-of-way, waterline easement and power line easement were reserved for the benefit of FAA. The VORTAC road also serviced the community of Kotzebue by providing access to the water reservoir. In addition to the VORTAC site, other land rights included a Native Allotment, a permit to the State of Alaska for an Avigation and Hazard Easement, existing and future ANCSA 17(b) easements, a 2,000-foot buffer around the VORTAC antenna and the watershed KIC intends to deed to the City of Kotzebue.

VORTAC Road

On January 14, 1977, FAA submitted an application for a 100-foot wide Right-of-Way (F-23302) in Kotzebue for the construction of an access road to their VORTAC facility. On January 31, 1977, NANA and KIC issued letters of non-objection for the construction of the road (F-23302) to FAA. BLM approved the right-of-way grant for 1,667.88 x 100 feet for F-23302 on December 20, 1979. When KIC received Interim Conveyance No. 544 on September 2, 1982, the conveyance was subject to the reservation of right-of-way F-23302 for an access road granted to FAA. A letter from Robert D. Arnold to KIC on June 21, 1982, stated, "EIN 66 C5 Delete this existing trail easement as access to the VORTAC station will be provided for by an agreement between FAA and KIC Access via granted right-of-way F-23302 50' FAA is also available."

As grantee, FAA was entitled to all the rights, privileges and benefits granted by the terms of the grant during the term of the grant, until it expired, was relinquished or was modified by the mutual consent of KIC and the FAA. This right-of-way called VORTAC Access Road Project was located within Section 11, T. 17 N., R. 18 W., KRM and reserved a total of 1667.88 feet long x 100 feet wide for a total of 3.83 acres and shown on drawing ALD-OTZ-040.002X. The easement was not reserved on the subject 3(e) lands because the right-of-way was reserved for the FAA, and the FAA had control of the subject lands at the time. It is apparent that FAA's original intent was to reserve a 100-foot access road. BLM granted a twenty-year term right-of-way with an expiration date of December 20, 1999.

The Kikiktagruk Inupiat Corporation received Interim Conveyance #544 on September 2, 1982. The IC reserved right-of-way F-23302 under ANCSA Section 14(g). Such interest applies to lessees, contractees, permittees, and grantees of rights-of-way and easements that originated before ANCSA. The corporation was required to honor the provisions of the right-of-way, permit or lease for its duration.

Upon receipt of IC #544 in 1982, administrative agency BLM waived jurisdiction of this road to KIC. The right-of-way expired on December 20, 1999. This road was included in the agreement for KIC to reconvey it to the City of Kotzebue under 14(c)(3).

2,000-Foot VORTAC Easement

On June 14, 1983, the FAA submitted site use plans and justification to BLM for 139.85 acres used in connection with the operation of the navigation facility. The FAA stated that use of the land began in 1968 when it constructed the VORTAC facilities. No action took place between December 18, 1971 and December 18, 1974 to reduce the needed area. FAA indicated the need for absolute control of the lands within the 1,000-foot radius of the VOR antenna and heavy restriction on the use of land between the 1,000 and 2,000-foot radius. FAA stated they also require the continued use of the access road. A request was made by FAA to include a special stipulation in the lease stating that the land be subject to a 44 L.S. 513 Right-of-Way serialized as F-031891.

PLO 3830, ANCSA §3(e) Site

KIC owns a portion of land in the former Public Land Order (PLO) 3830. This PLO was withdrawn on September 17, 1965 by the FAA for the maintenance of the air navigational facility across the lagoon near Kotzebue. This federal installation later became subject to an ANCSA §3(e) determination and was serialized as F-65065. A §3(e) determination was made in 1985 by BLM to release all of the land in the former PLO except an area 300 feet by 1,500 feet in size and described as Parcel 1, Tract B, which was to be retained by the Federal government.

BLM failed to convey the released land to KIC because there was an error in the legal description in the original §3(e) determination. BLM described Tract B, Parcel 1 in the wrong place, causing this parcel to be in conflict with the Louis A. Beltz Native Allotment. Mr. Beltz's use and occupancy (of land mistakenly described by BLM) of June 1, 1950 predated all other uses in this area. There was also a legal

description error in the conveyance of Tract V, Parcel A-1 for the VORTAC site. The VORTAC antenna was not located in this parcel.

KIC received expedited conveyance from BLM for the excess ANCSA 3(e) land through which the Ted Stevens Way Road crossed. KIC received interim conveyance to this land with IC #1849 on October 25, 2002.

RIGHTS-OF-WAY

A right-of-way, F-033395, located within Sec. 11, T. 17 N., R. 18 W., K.R.M. was granted for a power line to Kotzebue Electric Association, Inc., under the provisions of the act of February 15, 1901 (43 U.S.C. 959), as amended;

A 100 foot right-of-way, F-23302, located within Sec. 11, T. 17 N., R. 18 W., K.R.M. was granted for an access road to the U.S. Department of Transportation, Federal Aviation Administration, under the provisions of Public Law 94-579 (October 21, 1976) Title V (43 U.S.C. 1761-1771).

KIC granted a right-of-way to the City of Kotzebue on January 14, 2003 for the Ted Stevens Way extension. It was recorded as 2003-000025-0, Kotzebue Recording District on January 16, 2003.

KIC granted a 3.7 mile right-of-way to the Kotzebue IRA Council for the Hillside Road project adjoining the easterly right-of-way of the Air Force Road (EIN 53 C5) located in Section 21, T. 17 N., R. 18 W., K.R.M. This right-of-way grant included conditions and a reverter clause.

Kikiktagruk Inupiat Corporation granted an easement for an electric line to Kotzebue Electric Association in Sections 16, 21 and 28 of T. 17 N., R. 18 W., K.R.M. on March 27, 1984.

PERMITS AND LEASES

The KIC Lands Department issues gravel permits to KIC shareholders and other permittees that need gravel for projects in the City of Kotzebue. KIC has two active gravel permits and will probably receive gravel permits at Numiuk Point and Arctic Circle in the near future.

Kikiktagruk Inupiat Corporation granted a lease agreement for a windmill site to Kotzebue Electric Association in Section 25 and 35 of T. 17 N., R. 18 W.. K.R.M. on July 7, 2003.

UNITED STATES BUREAU OF LAND MANAGEMENT

ANCSA §17(b) Easements

Section 17(b) of the Alaska Native Claims Settlement Act (ANCSA), 43 U.S.C. 1616(b), authorizes the reservation of public easements on lands conveyed to Native Regional and Village Corporations. Such easements are referenced by Easement Identification Number (EIN) on the easement map.

All easements are subject to applicable Federal, State, or Municipal Corporation regulations. Department Manual 601 DM 4 (September 11, 1984) establishes procedures for the administration of easements that are under the jurisdiction of the Department of the Interior. It provides that the Department of the Interior agency whose land is accessed by the easement shall administer an easement reserved pursuant to Section 17(b) of ANCSA. Any uses which are not specifically listed are prohibited.

There are several ANCSA 17(b) Easements located within the study areas that are reserved through lands granted by the United States to KIC. Easements reserved near the present airport or near town are not listed but are shown on the map:

EIN 75 C4:

An easement restricting use of the lands within a 2,000 foot radius of the VOR antenna located in Secs. 11, 12, and 14, T. 17 N., R. 18 w., Kateel River Meridian. The uses allowed include the uses associated with the construction, reconstruction, operation, and maintenance of a VOR site, the right to clear and keep the lands clear from any obstruction infringing upon or penetrating the airspace, and the right to prohibit use on and remove from the lands beneath the airspace any source which would create interference for users of the VOR radio signal.

EIN 76 C4:

An easement twenty (20) feet in width for the City of Kotzebue's existing waterline from the west boundary of Tract B Parcel 2, in Sec. 11, T. 17 N., R. 18 w., Kateel River Meridian., southeasterly to the south boundary of Tract B Parcel 2 in Sec. 11, T. 17 N., R. 18 w., Kateel River Meridian. The uses allowed are those activities associated with the construction, operation, and maintenance of the waterline facility.

EIN 77 C4:

An easement twenty (20) feet in width for an existing powerline from the west boundary of Tract B Parcel 2 in Sec. 11, T. 17 N., R. 18 w., Kateel River Meridian, southeasterly to the south boundary of Tract B in Sec. 11, T. 17 N., R. 18 w., Kateel River Meridian. The uses allowed are those activities associated with the construction, operation and maintenance of the powerline facility.

EIN 8a C5:

An easement sixty (60) feet in width for an existing road from the west boundary of Tract B Parcel 2, in Sec. 11, T. 17 N., R. 18 W., Kateel River Meridian, southeasterly through Tract B Parcel 2 to the southern boundary of Tract B Parcel 2. The uses allowed are those listed above for a sixty (60) foot wide road easement.”

EIN 8 D1, D9:

An easement for an existing access trail twenty-five (25) feet in width from the edge of State patented submerged lands near Kotzebue within Tract 5, U.S. Survey No. 2645 within Secs. 2 and 11, T. 17 N., R. 11 W., Kateel River Meridian. The uses allowed are those listed above for a twenty-five foot wide trail easement.³ The season of use will be limited to winter.

EIN 12 D1:

An easement twenty-five (25) feet in width for an existing access trail from the west section line of Section. 18, T. 16 N., R. 17 W., Kateel River Meridian, southeasterly to public land. The uses allowed are those listed above for a twenty-five foot wide trail easement. The season of use will be limited to winter.

EIN 15 C5:

An easement sixty (60) feet in width for an existing road from the south boundary of patent No. 1236172, in Section 16, T. 17 N., R. 18 W., Kateel River Meridian, southerly to public land in T. 16 N., R. 18 W., Kateel River Meridian. The uses allowed are those listed for a sixty (60) foot wide road easement.

EIN 53 C5:

A transportation and communications easement sixty-five (65) feet in width for an existing road and two (2) buried communications cables, from the southern edge of patented State land in Sec. 16, T. 17 N., R. 18 W., Kateel River Meridian, southerly to the north boundary of the U.S. Air Force withdrawal. The uses allowed are those listed for a sixty (60) foot wide road easement and those use associated with the construction, operation and maintenance of the communication cable facilities.

³ 25-Foot Trail – The uses allowed on a twenty-five (25) foot wide trail easement are: travel by foot, dogsled, animals, snowmobiles, two- and three-wheeled vehicles, and small all-terrain vehicles (less than 3,000 lbs. Gross Vehicle Weight (GVW)).

NATIVE ALLOTMENT ACT

Pursuant to the Native Allotment Act of May 17, 1906, any Alaskan Native of full or mixed blood who was either head of a family or 21 years old could apply for no more than 160 acres of non-mineral land from the Department of Interior Bureau of Land Management. Native Allotees receive title in the form of a Certificate, which is a legal document that conveys beneficial possession of land and contains a patent number protected against alienation and taxation by the U.S. Government. The Kotzebue IRA is the main service provider for Native Allotment administration. Several allotments near Kotzebue have been taken out of restricted status.

Restricted Deeds

“Restricted” deeds are protected against taxation and alienation, and cannot be conveyed or encumbered without approval by the Secretary of the Interior (BIA).

Restricted lands mean that:

- The property is tax-exempt from all taxes.
- Income from the land cannot be taxed. (If the land is rented, leased or sold, the money cannot be taxed, just the interest, and it does not need to be reported to the IRS.)
- The land cannot be seized, taken away, trespassed upon, or be subject to liens. The land receives protection by the Federal Government from unauthorized seizure by the State, Federal and City governments for anything (not even the IRS). No one can trespass on the land, and no can place liens against the land.
- Restricted landowners can obtain free real estate services and counseling. (638 Services Providers or the BIA)
- The Bureau of Indian Affairs must approve all transactions (sales, leases, rights-of-way, rents, gift deeds, mortgages, etc.)

Unrestricted Deeds

“Unrestricted” deeds mean that the land is removed from a protected status in a manner approved by the Secretary of the Interior (BIA). The land is taxable, alienable and no longer under the BIA’s jurisdiction.

Unauthorized Use.⁴

Prior to approval of the allotment application, the agency having jurisdiction of the land retains unauthorized use abatement responsibility. In the case of BLM lands, at least, BIA assumes this responsibility after the application is approved. Prior to approval, either agency may initiate unauthorized use investigation with BIA providing its findings to the district office for appropriate action.

Prior to approval, removal of resources or construction of improvements by a third party constitutes unauthorized use. An allotment applicant may, before approval, utilize resources for his/her personal use, but not for most commercial purposes except in the case of subsistence resources under State fish and game laws. After approval, the Allottee and BIA assume jurisdiction over all resources not reserved to the United States.

Alienation of Interest

Certain activities on allotments are considered an alienation of interest. If cultural resources, for example, may be adversely affected by proposed development, the BIA must observe the requirements of Section 106 of the National Historic Preservation Act before approving a change in an allotment’s restricted status.

⁴ NATIVE ALLOTMENTS, BLM ALASKA HANDBOOK

Revocable Use Permits

P. L. 93-638 Service Providers must comply with several regulatory authorities in granting leases or permit on trust lands. 25 U.S.C. Sec. 415. deals with “Leases of restricted lands” and 25 CFR 162.3 provides procedures for Leasing/Permitting, Grazing, Probate and Funds Held in Trust.

25 U.S.C. 169 and 25 USC 415 provides procedures for the granting of leases and permits on restricted land. This authority is cited in the beginning of the Revocable Use Permit (RUP) that grants permission to State of Alaska-Department of Transportation/Public Facilities to gain access on restricted land for the purposes of conducting topographic surveys, Geotechnical work, soils inspection, and wetlands delineation. The compensation amount is negotiated between the 638 Service Provider and the Allottees.

The regulations were revised on January 22, 2001 in the areas of probate, funds held in trust for Indian tribes and individual Indians, leasing/permitting, and grazing. These revisions are meant to further fulfill the Secretary's fiduciary responsibility to federally recognized tribes and individual Indians. Revisions to leasing/permitting regulations implement the Indian Agricultural Resource Management Act and address appropriate procedures for entering into leases and permits on Indian lands and, more importantly, aid in properly determining and accounting for the value of such leases to individual land owners and tribal entities. The effective date for the implementation date of the regulations is March 23, 2001. Included below are portions of the regulations and a web site to view the regulation.

169.3 Consent of landowners to grants of right-of-way.

(a) No right-of-way shall be granted over and across any tribal land, nor shall any permission to survey be issued with respect to any such lands, without the prior written consent of the tribe.

§169.4 Permission to survey

Anyone desiring to obtain permission to survey for a right-of-way across individually owned, tribal or Government owned land must file a written application therefore with the Secretary. Upon receipt of an application made in compliance with the regulations of this part 169, the Secretary may grant the applicant written permission to survey.

Native Allotments within the subject area include:

Area 1

T. 17 N., R. 17 W., KRM

50-96-0070
50-96-0028
50-89-0224

T. 17 N., R. 18 W., KRM

50-85-0400
50-85-0121
50-97-0162
50-84-0474
50-2005-0361
50-84-0339
50-84-0771
50-86-0267

T. 18 N., R 17 W. and 18 W., KRM

50-96-0079
50-95-0341
50-96-0219
50-96-0085
50-84-0497
50-89-0177
50-89-0535
50-95-0644
50-95-0028
50-84-0406
50-95-0569

50-89-0224
50-96-0070
50-95-0556

Area 2

16N 18W KRM

50-91-0367
50-95-0508
50-96-0080
50-95-0620
50-95-0640

T. 17 N., R. 16 W., KRM

50-86-0263, Lots 1 and 2, U.S.S. 6764
50-96-0220, U.S.S 10858

T. 17 N., R. 18 W., KRM

50-91-0055
50-86-0065
50-96-0366

Area 3

T.15 N., R.16 W. KRM

50-95-0408, Lots 1 and 2, U.S.S. 10792
Portion of 50-2005-0005, Lots 2 and 3,

T. 15 N., R. 17 W., KRM

50-95-0298
50-95-0299, Lot 2, USS 10800
50-86-0224
50-95-0297, Lots 1 and 2, U.S.S. 10846
50-95-0338, Lots 3 and 4, U.S.S. 10846
50-2004-0329, U.S.S. 10847
50-2005-0005, Lot 1 and portions of Lot 2 and 3, U.S.S. 10847

T. 15 N., R. 18 W., KRM

Portion of NA Application F18853, Parcel A, USS 10850
Portion of 50-2005-0409, Lot 2, U.S.S. 10801
Portion of 50-96-0363, Lot 1, U.S.S. 10801
Portion of 50-2005-0522, Lots 3 and 4, U.S.S 10801
Portion of 50-95-0298

T. 16 N., R. 16 W., KRM

50-95-0334, U.S.S. 10852, Lot 1 and U.S.S. 10851, Lot 1
50-95-0403, U.S.S. 10852, Lot 2
50-95-0404, U.S.S. 10852, Lot 3
50-98-0238, U.S.S. 10853, Lot 2
50-95-0259, U.S.S. 10851, Lot 2

T. 16 N., R. 18 W., KRM

50-95-0556
50-96-0195
50-95-0607
50-96-0649
50-97-0202
50-97-0556
50-96-0195
50-95-0607
50-96-0649
50-97-0202
Portion of NA Application F18853, Parcel A, USS 10850
Portion of 50-2005-0409, Lot 2, U.S.S. 10801
Portion of 50-2005-0522, Lots 3 and 4, U.S.S 10801

DEVELOPMENT PLANS AND PLANNED USES

AREA 1

ANILCA §1407 Shareholder Homesite Program

§1407. §21 of the Alaska Native Claims Settlement Act is amended by adding a new subsection at the end thereof, as follows:

"(j) A real property interest distributed prior to December 18, 1991, by a Village Corporation to a shareholder of such Corporation pursuant to a program to provide homesites to its shareholders, shall be deemed conveyed and received pursuant to this Act: Provided, That the land received is restricted by covenant for a period not less than ten years to single-family (including traditional extended family customs) residential occupancy, and by such other covenants and retained interests as the Village Corporation deems appropriate: Provided further, That the land conveyed does not exceed one and one-half acres: Provided further, That the shareholder receiving the homesite, if the shareholder subdivides the land received, shall pay all Federal, State, and local taxes which would have been incurred but for this subsection, together with simple interest at six percent per annum calculated from the date of receipt of the land to be paid to the appropriate taxing authority."

KIC plans to implement a shareholder homesite program near the community on unencumbered land located off of Ted Stevens's Road. The homesite distribution allowed under ANILCA §1407 will accommodate 1,953 shareholders. Under the homesite program the parcels must be no more than 1½ acres in size.

The development will require the survey, platting and approval for multiple subdivisions, road access, and may require approximately 3,000 acres of unencumbered KIC land. This development will impact a large amount of land near Kotzebue and further congest the current airport property area. Planning for the shareholder homesite subdivision is expected to take a minimum of two years. Many Alaska Native Corporations have initiated plans for Shareholder Homesite Programs only to discover that the costs and land requirements are too great to be feasible.

AREA 1-3

Port Development and Road to Cape Blossom

The City of Kotzebue investigated the feasibility of a deep water port in 1977 and in 1983. The study was concentrated in several sites up to twenty-four miles from Kotzebue. The first port project study conducted by KPFF Architecture Engineering Planning proposed the creation of a mooring facility for ocean going barges at three sites: Cape Blossom, Isthmus Point and the present site in front of town were studied. Cape Blossom is located twelve miles from Kotzebue and is owned by KIC, NANA, and several Native Allottees. Development of the port would require that a road be constructed from Kotzebue to Cape Blossom where maintenance and storage buildings could also be constructed. Electricity lines, water and sewer systems would also need to be developed for infrastructure support.

In February 2006, the Federal Lands Highway Program, Safe, Accountable, Flexible, Efficient Transportation Equity Act: *A Legacy for Users* (SAFETEA-LU) was enacted; the Office of Federal Lands identified approximately 115 related projects nationwide including the road to Cape Blossom. The list of FLH-related earmarks is subject to change based on further analysis and investigation.

Inter-village tie power lines have been identified as a means to address the high cost of energy in the region; it would be prudent for future power development to be coordinated with any airport development.

POTENTIAL CONFLICTS

AREA 1

Potential conflicts are identified below, although this list is not exhaustive:

- Subsistent picking of wild plants/berries
- Nesting areas of migratory birds/Animal habitats
- Hunting
- Kotzebue Water Source
- Cemetery
- Current and future Landfill
- Watershed and corridors
- Private Subdivisions – Residential Lots
- Native Allotments
- ANCSA 14(c)(1) Subsistence Campsites
- ANCSA 17(b) 25 Foot Noorvik Winter Trail Easement (EIN 8, D12, D9)
- ANCSA 17(b) 2,000 Foot Vortac Easement
- Recreational areas
- Windmill farm
- Access Road to beach for gravel extraction
- Beach Recreation⁵

AREA 2

- Subsistent picking of wild plants/berries
- Nesting areas of migratory birds/Animal habitats
- Caribou migration
- Hunting
- Increased noise may impact sea mammals and other wildlife
- Native Allotments
- ANCSA 14(c)(1) Subsistence Campsites
- Watershed
- Nimiuk Point Subdivision Development
- ANCSA 17(b) 25 Foot Winter Trail Easement (EIN 12, D1)

⁵ Local people use the beach in the areas adjacent to the airport and south along the coast for recreational purposes. The construction of the Lagoon Road has reduced the need for access across the airport safety zone area.

AREA 3

- Subsistent picking of wild plants/berries
- Nesting areas of migratory birds/Animal habitats
- Kotzebue people frequent beaches in the area after storms finding ancient mastodon and mammoth ivory
- Caribou migration
- Hunting
- Old village sites in the area – may have archeological restrictions
- ANCSA 17(b) 25 Foot Winter Trail Easement (EIN 12, D1)

Summary

The documentation of land status of the existing airport and detailed mapping of the land status is important to assist in the site selection. The land status map cumulates the documented conveyances and land actions of a large, growing community. The information in this report will supplement the local information provided on the community level.

APPENDIX E

BRIDGE HYDRAULICS RECONNAISSANCE REPORT



RECONNAISSANCE REPORT Bridge Hydraulics

Introduction

On September 24, 2009, I accompanied Northern Region Design staff on a reconnaissance field trip to evaluate bridge site options over Sadie Creek. The reconnaissance team spent several hours inspecting creek crossing locations via helicopter. This report presents photographs of the bridge sites being considered for the project, my anticipated bridge length requirements, and rough cost estimates for planning purposes.

Data Gaps

Little hydrologic and hydraulic information is available for Sadie Creek. I have offered conservative bridge lengths to address the current uncertainties at the site. Cost savings may be realized if shorter bridge spans can be used. The following lists key variables are needed to make that determination.

- Peakflow data or estimates;
- High ice elevation, thickness, and aufeis accumulations (if any);
- General spring snowmelt and breakup patterns;
- High water elevation, including floods over ice
- Velocities during floods;
- Spring snowpack data, and historical trends;
- Meteorologic data for Kotzebue Sound and the Baldwin Peninsula; and
- Arctic hydrologic and geomorphic processes

We will need a thorough understanding the role of permafrost within the Sadie Creek basin. The Baldwin Peninsula features numerous thermokarst lakes, many of which are presently dry lake beds. These landscape features suggest a dynamic subsurface flow regime and a gradually changing surface topography as underlying ice layers thaw.

Bridge Considerations

Figure 1 (attached) provides an aerial view of the creek crossing locations being considered at the time of the site visit. Photographs were taken of the stream crossing locations from both the upstream and downstream directions (Figures 2-11). Note the persistent snow (or ice) along the banks of the Sadie Creek in Figure 1. These snow patches may serve as indicators of winter ice surface widths and the lateral limits of spring floods.

We have yet to determine the lateral extent of the Sadie Creek floodplain and the potential impact(s) of a bridge-related encroachment. At this stage, it is reasonable to assume that the active channel and a portion of the overbank areas should be spanned. Preliminary bridge span requirements for planning purposes can be inferred from channel and overbank features, along with distance measuring tools in Google Earth. Table 1 below lists conservative bridge length estimates for stream crossing options. Note that the easterly option (Crossing #2) would likely

require two bridges. Additional analysis will allow us to evaluate the feasibility of shorter span lengths or the use of culverts. For this reconnaissance report, I assume that beam type bridges (precast concrete or steel) with relatively short spans and pier heights are appropriate for the Sadie Creek crossing alternatives. The maximum span length available for standard decked bulb-tee girders is 150 ft. I also assume that the shipment and transport of this girder type would be feasible to the creek crossing sites, as Kotzebue is on the water port location.

Based upon recent bridge project bid tab data, the following cost estimating factors may be used for planning purposes. These cost factors are based upon bridge deck area in square feet (SF), and include all bridge-related construction and labor items (primarily the Section 500 pay items) and temporary work structures needed to access in-water work areas.

1. Short spans (<140-ft) and pier heights (<40-ft) use \$500/SF
2. Moderate spans (130-ft to 150-ft) and pier heights (40-ft to 80-ft) use \$750/SF
3. Long spans (>150-ft) and tall piers (>80-ft) use \$1000/SF

The structures that best represent these classifications or “types” are described below, with photographed examples provided as attachments to this report. I anticipate that the Sadie Creek crossings could be accommodated with a “Type 1” structure, using relatively short spans and pier heights. Descriptions of the larger structure types are provided below for comparative purposes.

- “Type 1”. Standard decked bulb-tee girder superstructure on *driven pile* foundations, similar to the Bridge No. 649 Chistochina River on the Tok Cutoff highway. This structure would be acceptable for low to moderate ice loads only.
- “Type 2”. Standard decked bulb-tee girder superstructure on *drilled shaft* foundations, similar to the Bridge No. 1386 South Channel replacement bridge in Unalaska. This structure would be acceptable for low to moderate ice loads only.
- “Type 3”. Steel girder superstructure with a precast or cast-in-place deck, similar to Bridge No. 671 Kenai River at Soldotna or Bridge No. 539 Knik River along the Old Glenn Highway. A substantial pier may be required to resist moderate to severe ice loads, possibly with ice-breaking provisions. Examples include Bridge No. 271 Yukon River and Bridge No. 205 Copper River at Chitina. Above the “high ice” elevation, the pier segments may be of reduced size.

TABLE 1. Preliminary bridge cost estimates for planning purposes only. These cost estimates are based upon a bridge deck width of 27 ft*.

River	Bridge “type” and unit cost per sq. ft.	Prelim. Length (ft)	Estimated Cost (\$)
Sadie Creek #1	Type 1, \$500/SF	420	6 mil
Sadie Creek #2a	Type 1, \$500/SF	220	3 mil
Sadie Creek #2b	Type 1, \$500/SF	100	1.5 mil

*DOT&PF Northern Region is planning for a 24 ft wide typical section per AASHTO low volume road standards. The proposed bridge would accommodate this roadway section with 1.5 ft wide bridge rails on each side.

ATTACHMENT 1

Sadie Creek Crossing Alternatives #1 & #2, Cape Blossom Access

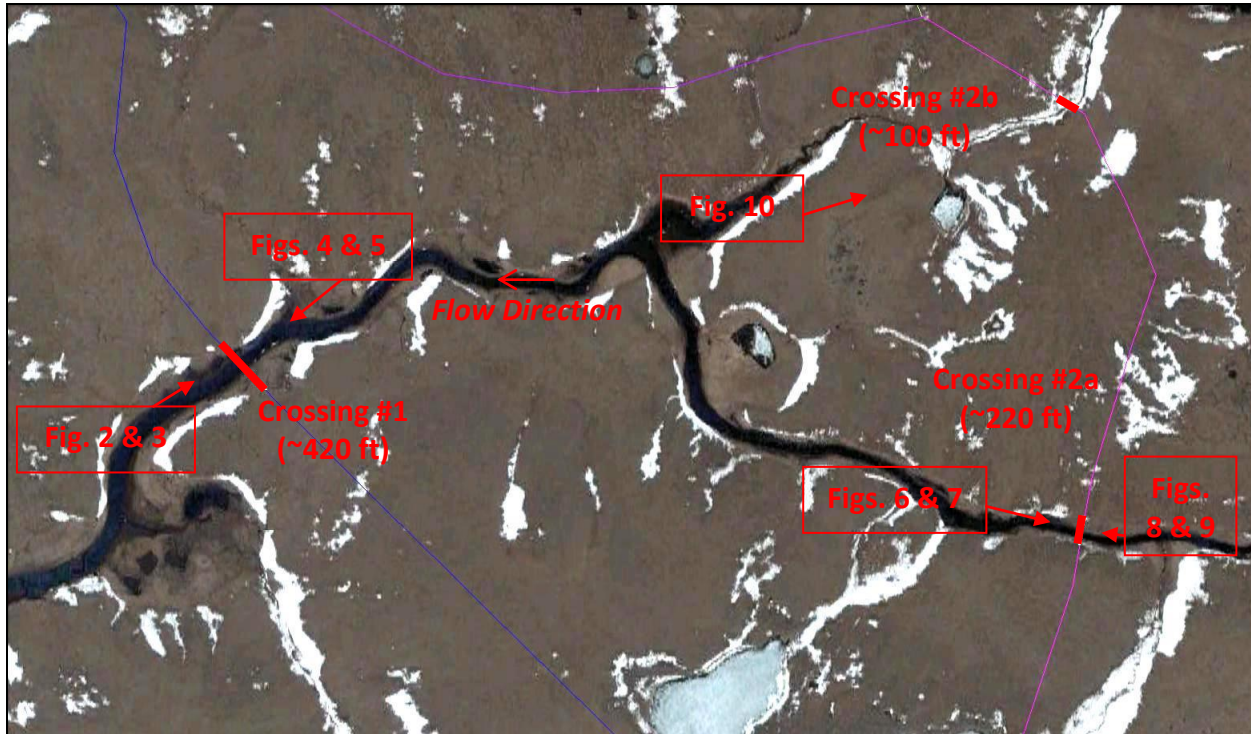


FIGURE 1. An aerial view of Sadie Creek and the stream crossing locations being considered. The straight line distance between Crossings #1 & #2a is about 1.21 miles. (Photo from Google Earth)

Sadie Creek Crossing #1

The red line on the figures illustrates the approximate spatial scale of the proposed bridge. Note that the bridge would be elevated and that our bridge concept would include sloping spill-through abutments.



FIGURE 2. An upstream view of the Crossing #1 location over Sadie Creek.



FIGURE 3. Another upstream view of Sadie Creek from the Crossing #1 site. This low-angle perspective shows the shallow topography of the area.



FIGURE 4. A downstream view of the Crossing #1 site over Sadie Creek.



FIGURE 5. Another downstream view of the Crossing #1 site over Sadie Creek, this one from a lower angle.

Sadie Creek Crossing #2a

The red line on the figures illustrates the approximate spatial scale of the proposed bridge. Note that the bridge would be elevated and that our bridge concept would include sloping spill-through abutments.



FIGURE 6. An upstream view of the Crossing #2a site over Sadie Creek. For planning and preliminary cost estimating purposes, we anticipate this bridge would be 220 ft long.



FIGURE 7. Another upstream view of the Crossing #2a site over Sadie Creek.



FIGURE 8. A downstream view of the Crossing #2a location over Sadie Creek.



FIGURE 9. Another downstream view of the Crossing #2a location over Sadie Creek, this one from a lower angle.

Sadie Creek Crossing #2b

The red line on the figure illustrates the approximate spatial scale of the proposed bridge.

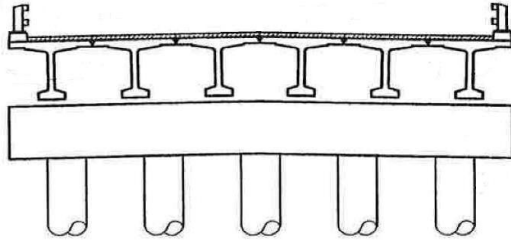


FIGURE 10. An upstream view of the Crossing #2b site over Sadie Creek. The flow direction is to the bottom left of the photograph.

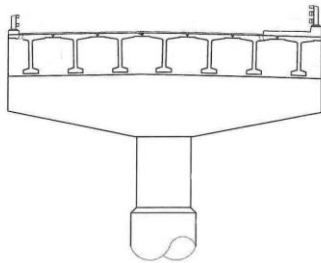
ATTACHMENT 2

Pier Type Examples

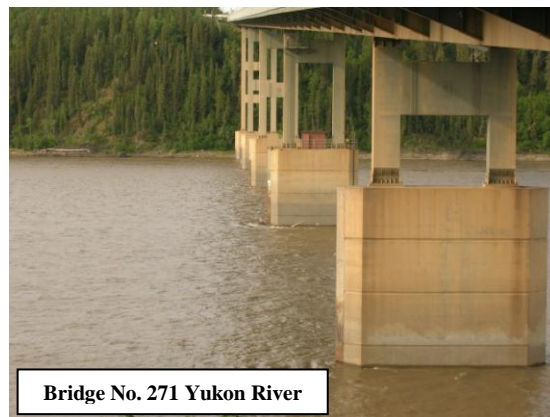
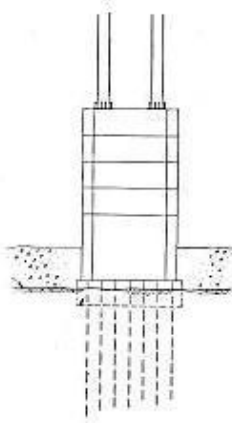
“Type 1” Example. Standard decked bulb-tee girder superstructure on *driven pile* foundations, acceptable for low to moderate ice loads only.

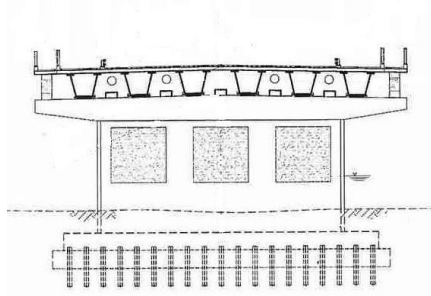


“Type 2” Example. Standard decked bulb-tee girder superstructure on *drilled shaft* foundations, acceptable for low to moderate ice loads only.

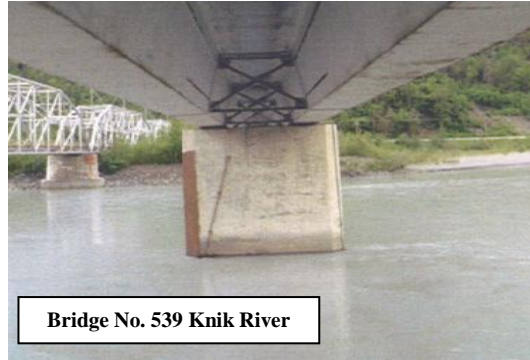
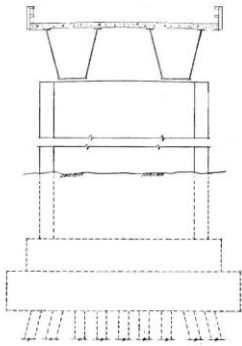


“Type 3” Examples. Steel girder superstructure with a precast or cast-in-place deck. A substantial pier may be required to resist moderate to severe ice loads, possibly with ice-breaking provisions. Above the “high ice” elevation, the pier segments may be of reduced size.

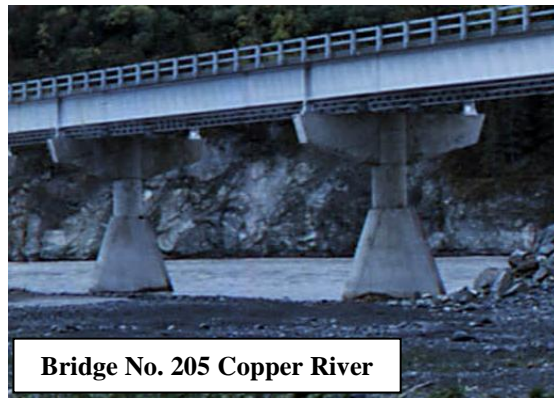
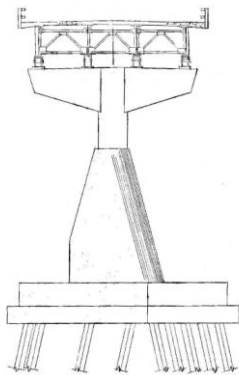




Bridge No. 671 Kenai River (Soldotna)



Bridge No. 539 Knik River



Bridge No. 205 Copper River