

NAPAKIAK COMMUNITY STREETS IMPROVEMENT PROJECT

FINAL ENVIRONMENTAL ASSESSMENT



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TABLE OF CONTENTS

TABLE OF CONTENTS	iii
LIST OF ACRONYMS	iv
1.0 PURPOSE AND NEED	1
2.0 PROPOSED ACTION	5
3.0 ALTERNATIVES	6
3.1 Proposed Action	6
3.2 No-Build Alternative	7
3.3 Other Alternatives Considered but Rejected	9
3.4 Comparison of Alternatives.....	9
3.5 Permits and Approvals Required.....	9
4.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES	9
4.1 Land Resources	11
4.1.1 Topography	11
4.1.2 Geology and Soils.....	11
4.2 Water Resources.....	13
4.2.1 Wastewater	13
4.2.2 Drinking Water.....	14
4.2.3 Storm Water.....	15
4.2.4 Wetlands	15
4.2.5 Floodplain	17
4.2.6 Coastal Zone Resources	18
4.3 Air Resources	18
4.4 Biotic Resources.....	20
4.4.1 Wildlife	20
4.4.2 Fisheries	21
4.4.3 Vegetation.....	22
4.4.4 Migratory Birds.....	23
4.4.5 Threatened and Endangered Species	24

4.5	Cultural Resources	25
4.6	Socioeconomic Impacts.....	26
4.6.1	<i>Social Impacts</i>	26
4.6.2	<i>Economic Impacts</i>	27
4.6.3	<i>Environmental Justice</i>	28
4.7	Transportation and Safety	29
4.8	Hazardous Material/Waste	30
4.9	Resource/Land Use Patterns.....	31
4.10	Construction Impacts.....	32
4.11	Cumulative Impacts.....	32
5.0	MITIGATION MEASURES	33
6.0	COMMENTS AND COORDINATION	34
7.0	LIST OF PREPARERS	35
8.0	REFERENCES	37

FIGURES

Figure 1: Project Location and Proposed Alignments

Figure 2: Typical Cross Section Drawings

TABLES

Table 1: Comparison of Alternatives

Table 2: List of Agencies Responding to Agency Scoping

APPENDICES

Appendix A: Preliminary Wetland Report

Appendix B: U.S. Army Corps of Engineers Conditional Jurisdictional Determination

Appendix C: U.S. Fish and Wildlife Service Section 7 Consultation Determination

Appendix D: Cultural Resources Report

Appendix E: Section 106 Determination

Appendix F: Phase I Environmental Site Assessment

Appendix G: Public and Agency Scoping Documentation

LIST OF ACRONYMS

AAC	Alaska Administrative Code
AASHTO	American Association of State Highway and Transportation Officials
ACS	American Community Survey
ADEC	Alaska Department of Environmental Conservation
ACMP	Alaska Coastal Management Program
ADFG	Alaska Department of Fish and Game
ADNR	Alaska Department of Natural Resources
ATV	All-Terrain Vehicle
BIA	Bureau of Indian Affairs
EA	Environmental Assessment
FHWA	Federal Highway Administration
GIS	Geographic Information Systems
HMCP	Hazardous Materials Control Plan
IRR	Indian Reservation Roads
LRTP	Long-Range Transportation Plan
NMFS	National Marine Fisheries Service
ROW	Right-of-way
RPKA	Rodney P. Kinney Associates, Inc.
SHPO	State Historic Preservation Office
SWPPP	Storm Water Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

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1.0 PURPOSE AND NEED

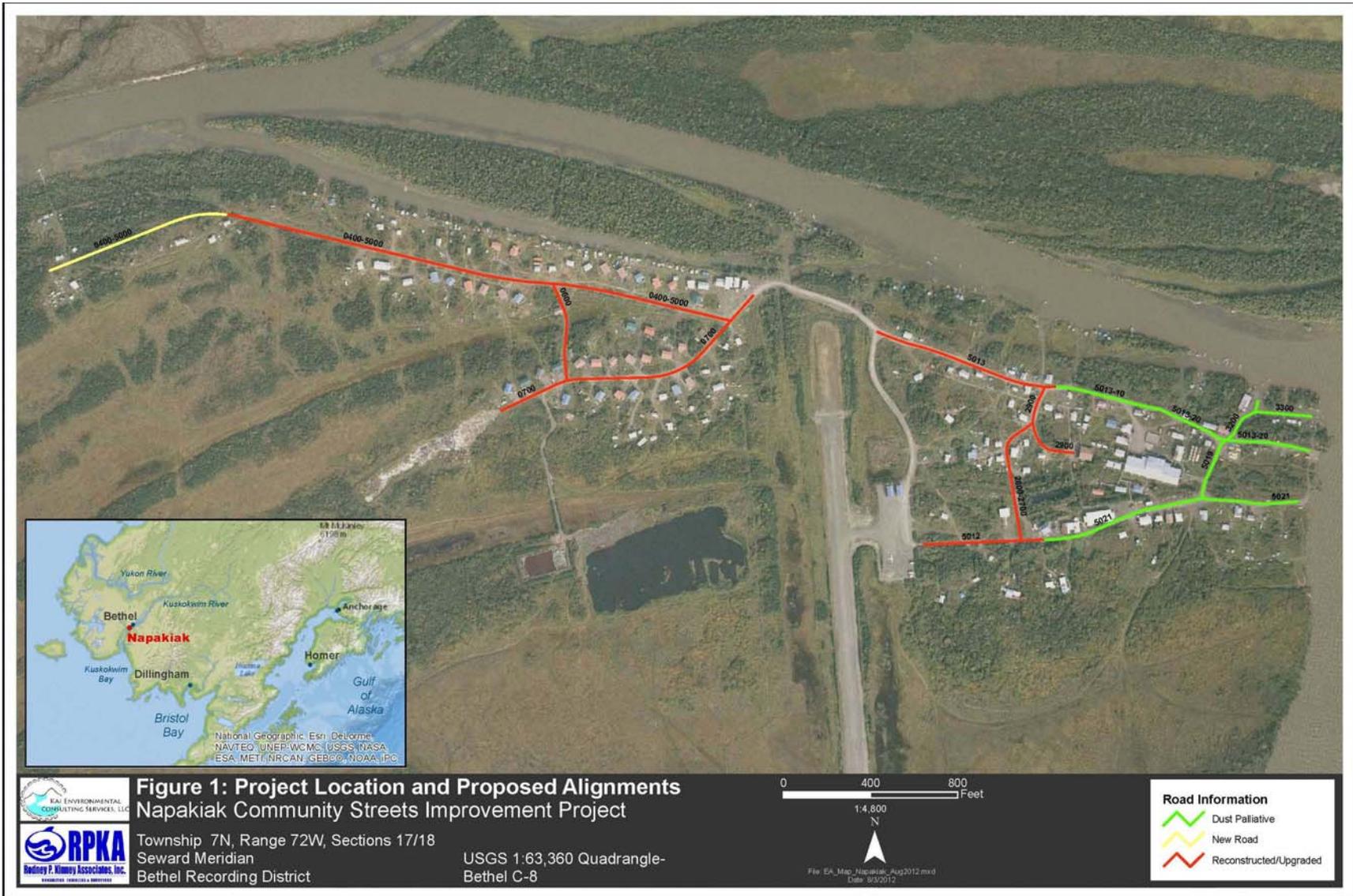
The Native Village of Napakiak, a federally recognized Tribe under 638 contract with the Bureau of Indian Affairs (BIA) Department of Transportation Indian Reservation Roads (IRR) Program, is in need of improved roads and transportation infrastructure within the community. The majority of existing roads within the village were constructed with little engineered alignment design. Many existing roads are not located in existing right-of-ways (ROW), and some roads do not have established ROW. The travel routes through town average in width from 15 to 22 feet, originally designed for All-Terrain Vehicle (ATV) traffic, and do not accommodate two-way ATV traffic or the increase of passenger vehicles. Some residential areas are accessed by boardroads. The boardroad system is comprised of narrow, lightweight board surfaces that are too narrow for two-way ATV traffic, and are therefore mostly used for pedestrian traffic. The cumulative affects of climate, surrounding drainage, and daily use cause the boardroads to deteriorate more rapidly than their anticipated design life (RPKA, 2009).

Most existing roads are constructed with 2 to 3 inches of gravel and sand over native soils on soft, subsiding road prisms (RPKA 2009). Lack of appropriate surface material creates a rough travel way with potholes. Additionally, due to a lack of proper drainage, roads are swamped each spring during break-up. This in turn spreads road material over a wider surface area. The 2009 update to Napakiak's Long Range Transportation Plan lists dust control as a major issue within the community, due to fine road materials being suspended in the air by traffic (RPKA, 2009). Dust creates safety hazards by reducing visibility. Dust also has an impact on human health by aggravating respiratory functions, such as asthma.

Napakiak is located on the north bank of the Kuskokwim River, on a delta island between the Kuskokwim and Johnson's Slough (Figure 1). While the entire community has been assessed for relocation due to severe erosion from the Kuskokwim River, planning and funding efforts have not been

secured and therefore relocation of the village is not expected to occur in the near future. Nevertheless, river erosion has forced the community to relocate individual houses from the east side of the village to the west side, which is expected to continue for the near future. However, there is no road access to the west side of the village where these houses are being relocated.

The purpose of the project is to provide a safe and efficient road system that allows for two-way ATV traffic. An additional purpose is to expand the road system to access relocated housing on the west side of the village. The improvements to existing transportation corridors within Napakiak will improve ease of access, user safety and reduce environmental health effects. The proposed new road segments will create safe access to undeveloped areas, providing for minimal impacts to the existing terrain. The overall goal is to improve the cultural, economic, and social well-being of the community while reducing the environmental impacts created by the existing roads and/or lack of transportation infrastructure.



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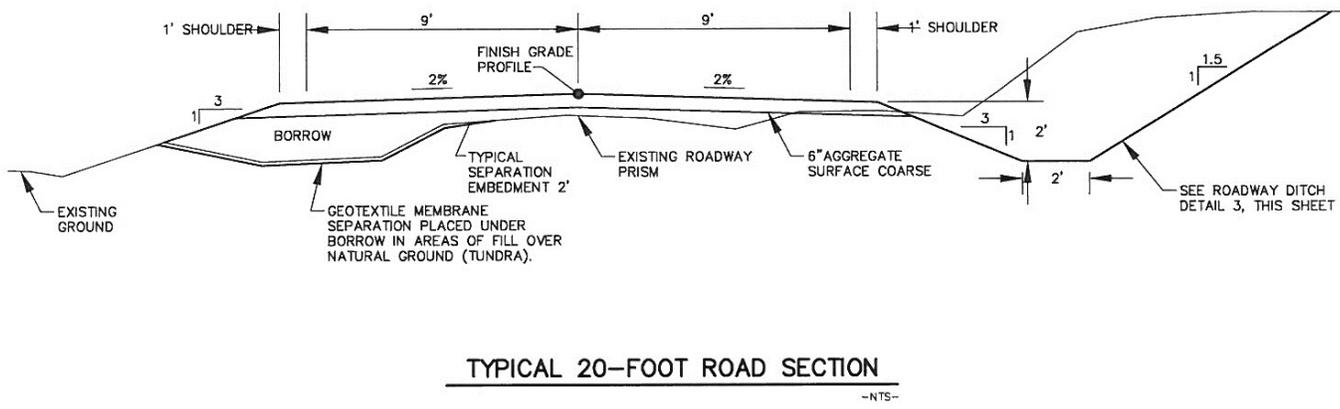
2.0 PROPOSED ACTION

The proposed project will upgrade approximately 1.1 miles of existing gravel roads and construct 0.3 miles of new road, for a total of 1.4 miles (7,475 linear feet) of surface improvements within the community (Figure 1). The roads will be designed to meet American Association of State Highway and Transportation Officials (AASHTO) standards.

On the west side of town, 0.3 miles of new road will be added to Route 0400-5000 (Mission Road). The existing Route 0400-0500 will be upgraded along with Route 0600 which branches south from the Mission Road, and 0700 (Lagoon Road) which accesses the landfill. On the east side of town road upgrades include: Route 5013 (the Kuskokwim Road), Route 2900 which runs south from the Eastern Main Road to the city office and washeteria, Route 2800-2700 a road segment which starts at the city office and accesses facilities on the southern end of the village, and the western portion of Route 5012 (Airport Road) which accesses the airport staging area. A dust palliative will be applied to all proposed upgraded and new roads, as well as IRR routes 3200, 3300, 5013-10, 5013-20, 5019 and 1521 (Figure 1).

Roads will have an 18 foot travel width with 1 foot shoulders (total 20 feet width) and will be topped with a 6 inch crushed aggregate layer. The side slopes for the roadway will be a 3:1 ratio. Figure 2 shows the typical cross-section for the upgraded and new road(s). Although some portions of the project will require ROW acquisition prior to construction, a majority of the upgrades will occur along the existing alignment. Drainage improvements are also required in some parts of the project to facilitate flow, and avoid pooling and swamping during spring break-up. Drainage along the proposed upgrades will be assisted by the replacement of eight damaged or undersized culverts of varying sizes, up to 36 inches.

Figure 2. Typical cross section of the proposed road for the Napakiak Community Streets Improvement Project in Napakiak, Alaska.



The upgraded and new roads have an anticipated design speed of 15 mph. A 2% cross-slope will be provided on the travel surface to send water to the downhill side of the road (Figure 2). Gravel and road building materials for the project will be barged into Napakiak from a commercial source. The staging and storage sites for construction equipment and material have not been identified. Construction equipment and barged fill material will most likely be staged in previously developed areas in the community, near and adjacent to the proposed project. The local landfill will be used to dispose of waste resulting from construction. Design, planning and environmental, and construction of the project is funded through the Indian Reservation Roads Program, administered by the Bureau of Indian Affairs (BIA) and the Federal Highway Administration (FHWA).

3.0 ALTERNATIVES

3.1 Proposed Action

The Native Village of Napakiak proposes to improve 1.1 mile of existing road within the community to improve transportation infrastructure, as well as develop 0.3 miles of new road for access to where

houses have been moved away from an eroding river bank. Refer to Section 2.0 for a detailed description of the Proposed Action. The environmental consequences are summarized in Table 1.

3.2 No-Build Alternative

Under the No-Build Alternative, residents of Napakiak would continue to use the degraded roads within the community. Existing roads would continue to erode and degrade overtime, making access through the community difficult. The area where new houses were moved would not have established access, thus no wastewater, drinking water or solid waste hauls systems can service them. Current access would be problematic in the continued rutting and erosion of the land.

Table 1: A comparison of the Proposed Action and No-Build Alternatives for the Napakiak Community Streets Project, Napakiak, Alaska.

Resource Evaluated	Proposed Action	No-Build Alternative
Topography	None	None
Geology & Soils	Approximately 2.17 acres of land will be permanently altered with fill. Approximately 80 yards of soils will be excavated and disposed at the landfill.	Soils would continue to be impacted with increasing area over time due to ATV use.
Wastewater	Improved access between facilities and residences.	None
Drinking Water	Improved access between facilities and residences.	None
Storm Water	Improved drainage along existing roads.	Continued degradation of existing roads.
Wetlands	Approximately 1.55 acres of jurisdictional wetlands will be permanently altered. A Section 404 permit and compensatory mitigation will be required.	Wetland disturbance and loss would still occur from ATV and pedestrian use of the 0.3 mile new road. Existing roads could continue to degrade adjacent wetlands with increasing area over time.
Floodplain	No additional floodplain impacts, some relief from flooding during the spring break-up is expected.	Flooding would continue to be a problem during spring break-up events.
Coastal Zone Resources	None	None

Table 2 con't: A comparison of the Proposed Action and No-Build Alternatives for the Napakiak Community Streets Project, Napakiak, Alaska.

Resource Evaluated	Proposed Action	No-Build Alternative
Air Resources	Short term air degradation during construction is expected. Dust palliative will be used to address long term air quality issues from new gravel roads.	Dust from gravel roads will continue to contribute to air degradation without the application of dust palliative.
Wildlife	Approximately 2.17 acres of previously unaltered wildlife habitat would be lost. Lost habitat is not unique to the area so loss would not have adverse impacts on wildlife.	Wildlife habitat loss would still occur from ATV use of the 0.3 mile new road. Existing roads could continue to degrade adjacent habitat with increasing area over time.
Fisheries	None	None
Vegetation	Approximately 2.17 acres of vegetation will be lost and 0.5 acres temporarily disturbed during construction of new road segment. Lost vegetation is not unique to the area.	Vegetation disturbance and loss would still occur from ATV use of the 0.3 mile new road. Existing roads could continue to degrade adjacent vegetation with increasing area over time.
Migratory Birds	Approximately 2.17 acres of vegetation and potential bird nesting habitat will be lost for construction of the new road segment. Best management practices for construction to minimize impacts to nesting birds will be followed. Lost vegetation is not unique to the area so loss would not have adverse impacts on migratory birds.	Foraging and nesting habitat for migratory birds along the 0.3 miles of new road would continue to be impacted with increasing area over time due to off-road ATV use.
Endangered Species	None	None
Cultural Resources	None	None
Social Impacts	Quality of life would improve with improved and safer access within the community.	Access within the community would continue to be unsafe and would limit access to relocated housing.
Economic Impacts	Short term economic advantage by creating jobs for local residents.	None
Environmental Justice	None	None
Transportation & Safety	Improved transportation access within the community and increased infrastructure.	Transportation routes would continue to be limited within the community.
Hazardous Materials/Waste	None	None
Resource Land Use Patterns	None	None

3.3 Other Alternatives Considered but Rejected

For IRR routes 3200, 3300, 5013-10, 5013-20, 5019 and 1521, complete upgrades to match the design of the other community street road upgrades was considered. However, due to the rapid erosion of the community near these road segments by the Kuskokwim River, it was decided to only apply a dust palliative to these routes in order to improve air quality. No other alternatives were considered for the project.

3.4 Comparison of Alternatives

Table 1 contains a summary of the effects of the Proposed Action versus the No-Build Alternative for the Napakiak Community Streets Project.

3.5 Permits and Approvals Required

The following local, State and Federal permits and/or approvals and/or documents are needed in order to complete the project which includes 1.1 miles of upgrades to existing roads and the construction of 0.3 miles of new road in Napakiak:

- Section 404 permit from the U.S. Army Corps of Engineers (USACE)
- Storm Water Pollution Prevention Plan (SWPPP)
- Hazardous Material Control Plan (HMCP)
- Acquire Right-of-Way.

4.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Environmental consequences are described in terms of direct, indirect (secondary), and cumulative impacts. Direct impacts are those that are caused by the action and occur at the same time and place. Indirect impacts are those that are caused by the action, but occur later in time or are farther removed in distance, but are still reasonably foreseeable. Both direct and indirect impacts are discussed in this

chapter. Cumulative impacts are those that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. See Section 4.11 for a discussion of cumulative impacts associated with the Proposed Action.

The following resource categories were not identified within the proposed project's affected area and are not evaluated in this document:

- United States Department of Transportation Action, Section 4(f)

Napakiak lies within the Yukon Delta National Wildlife Refuge, however the project area does not use any publically owned lands including: public parks, recreation areas, wildlife or waterfowl refuges of national, state or local significance, or land from a historic site of national, state, or local significance. Therefore a Section 4(f) analysis is not required.

- Farmland

There are no prime or unique farmlands or farmland of state or local importance in the vicinity of the project.

- Wild and Scenic Rivers

There are no designated state or federal wild and scenic rivers in the vicinity of the project.

- Sole Source Aquifer

There are no sole source aquifers in Alaska.

4.1 Land Resources

4.1.1 Topography

Napakiak lies in a flat area, on a lowland delta island nearest the Kuskokwim River. The village is 15 miles southwest of Bethel, and separated by Johnson's Slough, a secondary branch of the Johnson River. Areas near the river are prone to frequent and severe flooding due to ice jams and overflow. The village, at an elevation of 40 feet had flood disaster declarations in 1986, 1988, 1990, and 2005, resulting in efforts to relocate portions of the village (USACE, 2009). Flooding in Napakiak is discussed in detail in Section 4.2.5.

With the flat nature of the landscape and the water table near the surface, village topography is characterized by poor drainage and organic soils that are saturated down to ten feet. Continuous permafrost typically lies at a maximum depth of about 600 feet. Locally, permafrost is absent around large water bodies. The permafrost layer varies seasonally and annually, known as a thawing landscape, and gives structure to landforms such as tundra hummocks and thaw slumps. These landforms are further influenced by flooding streams, break-up events, winds, snow melt and vegetation decay.

Proposed Action

The Proposed Action would have no direct or indirect impact on the topography of Napakiak.

No-Build Alternative

Under the No-Build Alternative, there would be no direct or indirect impacts to topography.

4.1.2 Geology and Soils

Napakiak lies on a delta of the Kuskokwim River that is composed of fine-grained mineral deposits from modern floodplains, alluvial fans, and terraces. Rapid erosion threatens sections of

the community and several structures have been relocated. Section 4.2.5 further discusses flooding and erosion. In areas that have not been more recently affected by floods, some organic materials have been accumulating on top of sand and silt mineral layers. This organic layer is poorly drained. Soils are affected by permafrost, as described in Section 4.1.1.

Napakiak is located in seismic risk Zone 2 and has had no recorded instances of earthquake damage. Earthquakes up to moderate strength (Richter scale of 4.5 to 6.0) could occur in this region. The earthquake zone will impact structural design of bridges and bridge abutments, however the Proposed Action does not include bridge work.

Proposed Action

Typical gravel road surfacing will include sub-base fill and stabilization in addition to a new 6” gravel surface with a dust palliative applied. The proposed project will place fill material on existing road beds for approximately 1.1 miles. New impacts to soils along upgraded routes, which excludes where the existing road bed is present, would occur to approximately 1.03 acres. The 0.3 miles of new road will be constructed with fill being laid directly over native soil, which will create a new impact to 1.14 acres. The total new impact to soils for the project is 2.17 acres.

Approximately 80 yards of soils along existing roads will be excavated around culverts when they are removed. These soils will not be reused and will be disposed of at the landfill. No other soils will be excavated or displaced for project construction. While some thaw degradation of soils may be expected, this will be minimized by designing adequate fill depths and drainage for the roads. The proposed action will also indirectly reduce soil degradation along proposed routes by concentrating traffic on gravel roads.

No-Build Alternative

Under the No-Build Alternative soils near and adjacent to the existing roads will continue to be rutted and eroded over an increasing area. Soils associated with the new road segment will become more degraded over time as ATV use continues, when residents access housing.

4.2 Water Resources

4.2.1 Wastewater

Napakiak does not have a piped water sewage system. Fifty-six residents use a flush and haul system with low water toilets. Household wastewater is piped to an exterior 100-gallon above-ground tank, or “dog house.” The city operates a sewer service which includes pick up with a small Kubota tractor and servicing of dog-houses using a vacuum pump and tank. The wastes are then transferred along the existing road system to the city lagoon system. The community and school sewage lagoons are both well-contained. The section of town where houses were relocated and have no current road access cannot be serviced by the city waste hauling system.

Proposed Action

The Proposed Action would not have direct impacts to the City of Napakiak’s waste water system. Indirectly, the Proposed Action would create access to the houses that were moved to the west end of the village, thus providing the opportunity for residents to participate in the City of Napakiak’s waste water hauling system. The Proposed Action would also improve the existing roadways, thus allowing for smoother and safer hauling of waste water to the city lagoon.

No-Build Alternative

Under the No-Build Alternative transportation along the existing routes would continue to be degraded with rutted roads and erosion, making hauling of wastes more difficult and risky of spilling.

4.2.2 Drinking Water

There is no piped drinking water service in Napakiak. A central watering point provides the community with treated well water under Alaska Department of Environmental Conservation (ADEC) permit #262319. A water delivery truck operated by the city provides service and distribution to residences, which have 100-gallon capacity water tanks. Many residents haul their own water from the central watering point. Some villagers also melt river ice for drinking water. The houses which were relocated on the west end of Napakiak do not have road access and therefore cannot be serviced by the city water hauling system.

The City of Napakiak operates a washeteria which treats water from a secondary well. The washeteria facilities include a 2,000 gallon treated water tank which is used for the washeteria laundromat and restrooms. This tank also serves as the back-up community water supply.

Proposed Action

The Proposed Action would not directly impact drinking water in Napakiak. Indirectly, access between water wells and residents would be improved by having a smoother travel surface. Residents in houses on the west end of Napakiak could participate in water delivery if they chose, and would have access to self-haul water as well.

No-Build Alternative

Under the No-Build Alternative transportation along the existing routes would continue to be degraded with rutted roads and erosion, making hauling of water more difficult. Residents without road access would not have the choice to participate in the city water delivery service.

4.2.3 Storm Water

Napakiak's roads do not have a storm water system (i.e. ditches, drains). The area around Napakiak is relatively flat and has poor drainage. During large rainfall events and storms, surface water flows from the slightly higher elevations into the Kuskokwim River. Water remains on the flat surfaces of the existing roadways and contributes to potholes and rutting of the existing road material.

Proposed Action

Under the Proposed Action drainage ditches and culverts will be installed along upgraded and new road segments to maintain natural drainage. In addition a Storm Water Pollution Prevention Plan (SWPPP) will be developed for potential short-term construction impacts.

No-Build Alternative

Under the No-Build Alternative, poor drainage along the existing roadways remains an issue. Water will continue to pool on road surfaces, causing increased rutting and potholes over time.

4.2.4 Wetlands

Kai Environmental Consulting Services staff collected wetland data in Napakiak on September 13-14, 2010, using the U.S. Army Corps of Engineers (USACE) Alaska Regional Supplement to the 1987 Corps of Engineers Wetland Delineation Manual. The entire community was walked to determine different vegetation cover types, and to find sampling locations representative of the project area.

Although naturally atypical and problematic conditions exist in Napakiak, it was determined that the entire community lies on wetlands or within the floodplain of the Kuskokwim River (Appendix A). Therefore, the entire project area is within wetlands. There is pre-existing

development within the project area, therefore GIS was used to delineate out previously filled wetlands and the remainder of the project area is considered a mix of palustrine emergent and palustrine scrub-shrub (PEM/PSS) wetlands. The total project area evaluated was 13.8 acres, where approximately 6 acres contains fill and 7.8 acres is PEM/PSS wetlands (Appendix A). The project area evaluated was larger than the area needed for construction of the project. USACE concurred with the wetland study on April 2, 2012 (Appendix B).

Proposed Action

Under the Proposed Action, wetland loss would be unavoidable, as the entire community is built and surrounded by wetlands. Impacts have been minimized by designing roads with the minimal width necessary to meet traffic needs as well as maintaining as much of the original road alignment as possible. There are no temporary impacts expected, as heavy equipment used to build the proposed roads will stay on existing road. Construction of the Proposed Action would result in the permanent loss of approximately 1.55 acres of jurisdictional wetlands.

Indirectly, the Proposed Action consolidates off-road traffic in the new road section on the west side of Napakiak. Traffic consolidation minimizes impacts to wetlands over time.

The USACE has determined a Section 404 permit will be required for the proposed project.

Under Section 404 permitting, compensatory mitigation will be required for 1.55 acres of impacted wetlands. This mitigation will be negotiated as part of the permitting process, and it is expected to be in the form of an in-lieu fee program.

No-Build Alternative

Under the No-Build Alternative, wetland disturbance and loss would still occur from off-road vehicle and pedestrian use of the 0.3 mile extension of the Route 0400-5000 (Mission Road).

4.2.5 Floodplain

Napakiak lies on a delta, within the floodplain of the Kuskokwim River. Flooding frequency and severity is rated high as a result of river overflow and ice jams. The village, at an elevation of 40 feet had flood disaster declarations in 1986, 1988, 1990, and 2005.

Besides flooding, the community also faces severe and fast-moving erosion. In a 2009 erosion study, the USACE designated Napakiak as one of 26 “Priority Action Communities.” Erosion is enhanced by the silty nature of the soil underlying the village, and Napakiak’s location along the delta. Erosion around Napakiak generally occurs in fall, when storms with high south winds create wave activity on the river. Spring breakup flooding is a second, less severe cause of erosion. Since Napakiak lies downstream of Bethel, wake from frequent barge traffic also wears away the silty river banks.

Although the state has funded relocation of many structures to more stable locations, a significant number of structures, including the community school building, are susceptible to erosion damage within the next 10 years. Shoreline stabilization would cost nearly \$90 million and likely would not be an effective solution. The most reasonable approach appears to be retreat and relocation of structures to areas outside the vicinity of erosion risk (USACE, 2009). In the 2009 update of their Long-Range Transportation Plan (LRTP), Napakiak listed construction of a bridge over Johnson’s Slough as one of the highest community transportation priorities (ASCG, 2007).

Proposed Action

As roads are upgraded and the new road segments are constructed, culverts will be installed that encourage positive drainage toward the Kuskokwim River and Johnson’s Slough. This improvement in drainage is likely to reduce flooding caused by the improper drainage caused by

the existing roads. Erosion of the riverbanks would still occur under the Proposed Action. No other direct or indirect impacts are expected.

No-Build Alternative

Under the No-Build Alternative, water would still continue to build-up and cause road erosion from seasonal flooding during spring break-up. Erosion of the riverbed on the Kuskokwim River would still occur.

4.2.6 Coastal Zone Resources

Napakiak is located approximately 50 miles from the Bering Sea coastline along the mouth of the Kuskokwim River. In May 2011, the Alaska State Legislature did not extend funding for the Alaska Coastal Management Program (ACMP). The program underwent administrative closure in July 2011, and at this time, no longer regulates coastal zone projects. During the scoping process, the Alaska Department of Natural Resources (ADNR) did not comment on the project with respect to coastal zone management. A review of the *Coastal Zone Boundaries Atlas* found that the project is not located within an Alaska Coastal Management District Program.

Proposed Action

The Proposed Action would not have direct or indirect impacts on Coastal Zone Resources.

No-Build Alternative

The No-Build Alternative would have no direct or indirect impacts to Coastal Zone Resources.

4.3 Air Resources

No air quality monitoring is available for Napakiak, it is therefore designated as unclassifiable. According to Alaska Administrative Code (AAC) 18 AAC 50.15, all geographic areas in the state are designated by the federal administrator as “attainment,” “non-attainment,” or

“unclassifiable.” An area is designated attainment for a particular contaminant if the air quality meets the ambient standard for that contaminant. If air quality exceeds the standard, that area is designated non-attainment. If there is insufficient information to classify an area as attainment or non-attainment, the area is designated “unclassifiable.”

The current road system creates dust problems throughout the community. Not only is dust a nuisance, but it creates safety hazards by reducing visibility. Dust also affects human health by aggravating existing heart and lung disease. Children, seniors and people with asthma and respiratory or heart conditions are susceptible to health problems from breathing dust. Dust also settles on household surfaces affecting food and sensitive electronics. Outside it settles on drying subsistence foods.

Napakiak’s 2009 update to their Long Range Transportation Plan lists dust control as a major issue within the city limits (RPKA, 2009). Residents would like to see an environmentally safe dust suppressant incorporated into any upgrade or design project within the community, as it may come into contact with drying meat hanging in the village.

Proposed Action

The Proposed Action could create short-term dust during construction that would be alleviated by spraying water onto the roads during construction. In addition, a dust palliative will be used at the end of construction for all roads. Dust control by the application of palliatives on roads helps extend the life of the gravel surfaces, reduce safety hazards and protect the health of residents. The larger group of dust palliatives used on unpaved roads consists of chemicals that are designed to bind fine soil particles into larger particles. The success of palliatives, to reduce dust, depends on the proper repair, maintenance and drainage of traffic surfaces (CPWA, 2005;

ADEC, 2006). Maintenance of the dust palliative will depend on future funding for road maintenance.

No-Build Alternative

Under the No-Build Alternative dust would continue to be problematic and an air quality concern for the village of Napakiak.

4.4 Biotic Resources

4.4.1 Wildlife

Napakiak lies in the southern portion of the Yukon Delta National Wildlife Refuge. The refuge is best known for being extremely productive for waterfowl, and avian species are addressed in Section 4.4.4. Deltas of the Kuskokwim provide habitat for shrews, bats, muskrats, voles, lemmings, gray wolves, red foxes, black and brown bear, weasels, mink, river otter, and moose. Occasionally beluga and killer whale make their way up the Kuskokwim, but marine mammals are rare and temporary in this area.

Proposed Action

The Proposed Action would directly result in permanent alteration and/or loss of 2.17 acres of potential wildlife habitat through the removal of vegetation, displacement of soils and fill of land. The Proposed Action upgrades on existing roads within the village would not impact larger mammals or aquatic species. The loss of potential habitat may have an effect on small mammals, however 2.17 acres of habitat would be a small percentage of the available habitat within and adjacent to the project area. None of the habitat impacted by the Proposed Action is unique to the area, nor is it considered significant to terrestrial mammals.

No-Build Alternative

Under the No-Build Alternative impacts to potential habitat along the 0.3 mile new road corridor would continue to expand over time from off-road traffic to access houses. Indirectly, displacement of road material due to erosion and inadequate maintenance of existing roads may increase the footprint of impact on the adjacent habitat.

4.4.2 Fisheries

Napakiak lies on a delta of the Kuskokwim River. The Kuskokwim is listed as anadromous habitat for all five species of salmon, sheefish, whitefish, humpback whitefish, Arctic lamprey, Pacific lamprey, and least cisco (ADFG, 2012a). Johnson Slough is listed as anadromous for sheefish and whitefish. The Alaska Department of Fish and Game (ADFG) and National Marine Fisheries (NMFS) also lists the Kuskokwim as Essential Fish Habitat for all five species of salmon (ADFG, 2012b).

Fishing is an important aspect of life in Napakiak, as part of their subsistence lifestyle and an economic base. In 2000 there were 12 vessel owners residing in the community with operations in state-managed fisheries. Forty-two local residents held a total of 48 commercial fishing licenses, and 35 licenses were fished. There were 47 registered crew members. Napakiak's most significant involvement in commercial fishing is in the Bristol Bay and Kuskokwim Bay salmon fisheries (NOAA, 2005).

Proposed Action

The Proposed Action would not have direct impacts on fisheries in the area, as no work is being proposed in anadromous fish streams and no bridges are being proposed. Under the Proposed Action a SWPPP is required and conditions outlined within the SWPPP would prevent

construction sediment and debris from flowing into Johnson's Slough and the Kuskokwim River. Therefore, no indirect impacts from the Proposed Action are expected.

No-Build Alternative

The No-Build Alternative would have no direct or indirect impacts on fisheries.

4.4.3 Vegetation

The Alaska Arctic Tundra Vegetation Map (Raynolds et al, 2006) shows Napakiak in bioclimate subzone E as part of a wet acidic complex with low shrub tundra. This classification description generally includes wet sedge communities with *Carex aquatilis*, *Eriophorum angustifolium*, *Carex rostrata*, and *Sphagnum spp.* It also includes shrub thickets where predominant species include *Salix arbusculoides*, *Salix alasensis*, *Salix planifolia* and *Alnus viridis fruticosa*.

Proposed Action

The Proposed Action would directly impact approximately 2.17 acres of vegetation by removal and/or placement of fill material on the ground. Approximately 0.5 acres of vegetation may be temporarily impacted during construction activities, but should recover after construction. Road slopes will be seeded as appropriate to assist in alleviating subsequent erosion. Seed mixtures will be a mixture determined by ADNR for the Bethel/Napakiak region. None of the vegetation impacted is considered unique to Napakiak, and similar vegetation communities are abundant in adjacent areas. Therefore the direct impacts to vegetation would be considered minor.

No-Build Alternative

Under the No-Build Alternative there would be no direct impacts to vegetation. Indirectly, minor impacts to vegetation along the 0.3 mile new road would be expected to occur over time

from off-road ATV access to housing. Additionally, adjacent areas along the existing road corridors may have minor impacts to vegetation from road erosion and dust.

4.4.4 Migratory Birds

Migratory Birds are protected under the Migratory Bird Treaty Act. Napakiak is in the lower section of the Yukon Delta National Wildlife Refuge which is in the West Pacific Flyway. The Kuskokwim delta is a landscape of tundra, marshes lakes and streams, which support one of the largest concentrations of water birds in the world. Every spring millions of waterfowl, geese and shorebirds migrate to this area to nest and breed.

Migratory waterfowl commonly found in the area include cackling geese, emperor geese, Pacific white-fronted geese, Pacific brant, the lesser Canada goose, trumpeter and tundra swans, pintails, mallards, green-winged teals, white-winged and black scoters, wigeons, golden eyes, long tailed ducks, canvasbacks, king eiders, red breasted mergansers, and greater scaups. Napakiak and the surrounding area also provide habitat for sandhill cranes, shovelers, yellow-billed loons, glaucous gulls, mew gulls, godwits, cormorants, and arctic terns (Wentworth, 2007). There is available bird nesting habitat within and adjacent to the community of Napakiak, and numerous birds are known to nest within the area.

Proposed Action

The Proposed Action is to upgrade existing roads and develop a 0.3 mile new road. Use of the project area within Napakiak by migratory birds is likely to be low, due to current noise and activity level in the village. Construction of the new 0.3 mile road segment and widening of existing roads would directly result in permanent loss of approximately 1.14 acres of potential nesting and foraging habitat. Mitigation measures for vegetation clearing, according to the USFWS, are outlined in Section 4.10 and would reduce impacts to potential avian nests during

nesting season. Due to the availability of habitat in surrounding areas and in the region, the loss of the 1.14 acres of potential migratory bird habitat would be minor. The habitat surrounding Napakiak is not unique for any sensitive avian species.

No-Build Alternative

The No-Build Alternative would have no direct impacts on migratory birds. Indirectly, minor impacts to potential nesting habitat along the 0.3 mile new road would be expected to occur over time from off-road ATV access to housing. Adjacent areas along the existing road corridors may have minor impacts to potential nesting habitat from road erosion and dust.

4.4.5 Threatened and Endangered Species

Under Section 7 informal consultation guidelines, it is the BIA's responsibility as the "Action Agency" to make a determination for threatened and endangered species and seek USFWS and/or NMFS concurrence. For each species the action agency must determine whether or not the project will: not affect, may affect but not likely adversely affect, or may affect and likely to adversely affect.

In a letter dated July 18, 2011 the USFWS concurred that there are "no federally listed or proposed species, or designated or proposed critical habitat, within the area of the proposed project in Napakiak and no further Section 7 coordination is required" (Appendix C).

Proposed Action

The Proposed Action would have no direct or indirect impacts on threatened and endangered species.

No-Build Alternative

The No-Build Alternative would have no direct or indirect impacts on threatened and endangered species.

4.5 Cultural Resources

The Native Village of Napakiak is a federally recognized Tribe. This region has historically been occupied by Yup'ik Eskimos and today, Napakiak is predominantly inhabited by Yup'ik people who maintain a fishing and subsistence lifestyle. The presence of traditional Yup'ik culture is still quite strong, as evidence by the fact that 84% of residents speak the Native language in their homes (NOAA, 2005). According to the 2010 U.S. Census, Napakiak is 97% Alaska Native (ADCCED, 2011).

Yup'ik Eskimos have inhabited the Yukon-Kuskokwim area since prehistory. Napakiak village was first reported in 1878 by E.W. Nelson, although at that time the village was located downriver at the mouth of the Johnson River. By 1910, the village had 166 residents and in 1939 a BIA school was built. In 1946 a Native-owned village cooperative store was opened, a post office was established in 1951, and a National Guard Armory was built in 1960. The city was incorporated in 1970. The first airstrip was completed in 1973, enabling year-round access.

The proposed project area and right-of-way were archaeologically surveyed by Mark Pipkin of Walking Dog Archaeology on September 20, 2010. No archaeological sites or historical remains that could be considered eligible for inclusion on the National Register of Historic Places were found in any of these areas (Appendix D).

Proposed Action

The Proposed Action would not affect any historical, archeological or culturally important sites. The BIA, with consultation from the Native Village of Napakiak and the State Historic Preservation Office (SHPO), issued a “No Historic Properties Affected” determination in their Section 106 Review on May 7, 2012 for the Proposed Action (Appendix E). The Section 106 Review determined that no archaeological monitoring will be required for the Proposed Action, however, if previously unknown archaeological materials or human remains are discovered during construction, all activities will cease and be reported immediately to the BIA Regional Archeologist.

No-Build Alternative

Under the No-Build Alternative, there would be no direct or indirect impacts to cultural resources.

4.6 Socioeconomic Impacts

4.6.1 Social Impacts

Napakiak is a traditional Yup'ik village with a subsistence and fishing lifestyle. Napakiak's population has grown from 318 people in 1990 to 354 in 2010 – an 11% increase (ADCCED, 2012). The sale, importation and possession of alcohol in the village is banned.

Napakiak has one public school in the Lower Kuskokwim School District, serving children from preschool through 12th grade. In 2006 there were 110 students and 7 teachers. Napakiak has one clinic operated by the Yukon Kuskokwim Health Corporation. Electricity is generated by Bethel Utilities and transmitted by overhead line to the community. The Napakiak Ircinraq Power Company, which is operated by the village council, purchases and distributes the electricity. United Utilities provides communication service, including telephone and internet.

Proposed Action

The Proposed Action would not permanently affect local demographic trends or cultural values. Upgrading roads would provide village residents better access to education, health care and social service facilities within the community. Road improvements would increase village infrastructure and allow more efficient transportation and safety for the community.

No-Build Alternative

The No-Build Alternative would limit the residents of Napakiak to the existing degraded roads.

4.6.2 Economic Impacts

Napakiak is a traditional Yup'ik village with a subsistence and fishing lifestyle. Napakiak's primary employers include the school and local, state, and federal governments. Seasonal commercial fishing, construction projects, trapping, and crafts also provide income. In 2010, 40 residents held commercial fishing permits, primarily for herring roe and salmon net fisheries. Subsistence foods provide an estimated 50% of the local diet. Most families have fish camps. Salmon, waterfowl, moose, bear, and seals provide meat (ADCCED, 2012).

The 2006-2010 American Community Survey (ACS) estimated 105 residents as employed. The public sector employed 23% of all workers. The local unemployment rate was 29%. The percentage of workers not in labor force was 48%. The ACS surveys established that average median household income (in 2010 inflation-adjusted dollars) was \$37,250. The per capita income (in 2010 inflation-adjusted dollars) was \$11,023. About 34% of all residents had incomes below the poverty level (U.S. Census Bureau, 2010).

Napakiak was incorporated as a second-class city in 1970. A 3% sales tax is collected in the city. Napakiak is not located within an organized borough, but is within the Bethel Census Area.

A federally recognized native village council is active in the community. There is also a village corporation, the Napakiak Corporation.

Proposed Action

The Proposed Action would likely create short-term economic activity in Napakiak as a result of jobs created directly and indirectly through construction activities. Maintenance of the road may create a long-term job within the community but significant long range economic impacts are not anticipated.

No-Build Alternative

The No-Build Alternative would have no direct or indirect economic impact.

4.6.3 Environmental Justice

Executive Order 12898 requires an analysis of whether each alternative would cause disproportionate adverse impacts on minority or low-income populations that reside in the project area. The population of Napakiak is 97% Alaska Native (ADCCED, 2012).

Proposed Action

Under the Proposed Action, the improved roads would result in safety improvements and enhanced transportation infrastructure for the entire community. Since the entire population would be similarly affected, the Proposed Action would not result in disproportionately high and adverse impacts to minority or low-income populations.

No-Build Alternative

There would be no direct or indirect impacts to environmental justice under the No-Build Alternative.

4.7 Transportation and Safety

Napakiak is located on the north bank of the Kuskokwim River, 15 miles southwest of Bethel. The community has a state-owned 3,248 foot gravel runway and seaplane-landing area which receives regular air service from Bethel. Goods are also transported to the community via barge on the Kuskokwim River, however, there are no docking facilities and barges land on the banks of the Kuskokwim River. Boats provide transportation between communities in the summer, and snowmobile, ATV and passenger vehicles provide transportation in the winter when the river becomes an ice road. A winter snowmobile trail is marked to Bethel.

The current existing road structure within the community is degraded. It was originally constructed without the benefit of a design, and poor surface materials were used, causing a rutted roadway with potholes. The existing roads were built to accommodate ATV traffic, giving access to residences, drinking water, wastewater, landfill, school, health clinic, post office, airstrip and Tribal government offices. Since the roads were constructed, passenger vehicles have been brought to the village with no upgrades to the existing roads.

Proposed Action

The Proposed Action would improve village infrastructure by improving the main roads that act as the core transportation vein. These roads provide transportation to residential areas and all of the major community facilities. In addition, City of Napakiak services such as water, wastewater, and solid waste hauling would be improved by having smoother travel surfaces.

No-Build Alternative

Under the No-Build Alternative the community would continue using the existing muddy, rutted roads. Improper drainage would continue posing a problem, particularly during spring break-up.

Hauling goods and City of Napakiak services would continue to be challenged and would degrade over time.

4.8 Hazardous Material/Waste

No indication of contamination from hazardous materials or petroleum products was found within the project area during the Phase I Environmental Site Assessment investigation conducted by Kai Environmental Consulting Services in September 2010 (Appendix F). The old village dump, a Class 3 uncontained landfill, is the only on-site environmental concern. The old dumpsite is accessed by a road that is included in this project. The old dumpsite was closed to use and covered with fill material in spring 2011 when the new landfill began operation.

The Federal Scout Armory is the only ADEC contaminated site for Napakiak and falls outside the project area. It is listed as an active site currently undergoing cleanup and closeout operations. There are two open petroleum spill sites within the community; however, both are outside the project area.

Proposed Action

Under the Proposed Action the contractor would be required to develop a Hazardous Materials Control Plan (HMCP) to address hazardous material that would be used and disposed of during project construction. In addition, the HMCP would outline a response plan in the event a discovery is made and/or generated during construction. As stated in the Phase I Environmental Site Assessment, there is little to no risk of discovering historical contamination in the project area (Appendix F).

No-Build Alternative

The No-Build Alternative would not affect hazardous waste generated by, or shipped into the community.

4.9 Resource/Land Use Patterns

The Native Village of Napakiak is a federally recognized Tribe. This region has historically been occupied by Yup'ik Eskimos and today, Napakiak is predominantly inhabited by Yup'ik people who maintain a fishing and subsistence lifestyle. The presence of traditional Yup'ik culture is still quite strong, as evidence by the fact that 84% of residents speak the Native language in their homes (NOAA, 2005).

Adjacent areas to Napakiak are used for hunting, fishing and berrying, as part of the subsistence lifestyle. Seasonal fish camps may be found up and down the river corridors. Hunting and berry picking occurs on lands between Napakiak and Bethel, as well across the Kuskokwim River. Access to subsistence resources occurs year round, including by boat along the river in the summer, driving ice roads along the river in the winter, some ATV access along land in the summers and snowmobile access in the winter.

Proposed Action

The Proposed Action proposes to upgrade 1.1 miles of existing road and add 0.3 miles of new road, currently used as a path. Since there is no new use of land, there would be minimal change to resource and land use patterns in Napakiak. Hunting and subsistence activities occur outside of the project area.

No-Build Alternative

The No-Build Alternative would not impact resource use patterns.

4.10 Construction Impacts

Under the Proposed Action, 2.17 acres of vegetation will be permanently altered and an additional 0.5 acres of vegetation will be temporarily impacted during construction. To minimize impacts to nesting birds, vegetation will be cleared prior to May 5. In addition, efforts will be made to keep construction equipment on the road surface, to minimize temporary impacts. Staging of construction equipment and materials will occur in areas of previous development, and no new impacts are expected.

The Proposed Action would potentially cause temporary, localized air degradation from construction activities. Gravel hauling and placement and operation of heavy equipment would cause minor air quality degradation from increased dust and exhaust emissions. However, the short-term impacts are anticipated to be minimal. Heavy equipment operations during construction would temporarily increase noise levels; however, this would be minor, localized, and short-term in duration.

During construction, the Proposed Action would increase noise levels within the community by operating heavy equipment. Increase noise levels would be localized, short-term and residents will be notified of construction schedule. Increased noise levels are not expected to impact wildlife, as activities are planned within the community where airplane and vehicle noise exists and noise levels will be short-term.

4.11 Cumulative Impacts

Cumulative impacts result from incremental consequences of an action when added to other past, present, and reasonably foreseeable future actions. Past and present actions are construction of housing, other buildings, and utilities as the village developed and continues to develop. Two reasonably foreseeable future actions in Napakiak are the community water and sewer project,

and a housing relocation project. The water and sewer project will upgrade the existing washeteria, however no upgrades to the existing haul system are planned. The project is in the design phase, and no impacts have been evaluated. In general, impacts will be consolidated to the existing infrastructure and/or the road corridor. The housing relocation project would move homes along the existing roads and place them amongst other houses in residential areas. The Proposed Action would provide access to these houses.

Minor impacts to soils, wetlands, wildlife habitat, vegetation, migratory bird nesting habitat, social and economic resources have resulted from past and present actions, and minor impacts would be expected from the reasonably foreseeable future actions. Additionally, none of these resources are considered threatened or unique to Napakiak or the surrounding area, and mitigation measures to minimize impacts would be developed for the future actions. Given these considerations, the minor incremental impacts from the Preferred Alternative, when added to other past, present, and reasonably foreseeable future actions, would not result in substantial cumulative impacts to these resources or affect the ability of these resources to sustain themselves.

5.0 MITIGATION MEASURES

All necessary permits and agency approvals would be obtained prior to construction and any permit stipulations would be incorporated into the contract specifications. Right-of-way easement would be acquired prior to construction.

The potential for soil erosion from road toe slopes will be mitigated by vegetation seeding of the slopes with an ADNR approved mix for the region. In addition, a SWPPP will minimize erosion from entering adjacent waterways during construction.

The USACE requires a Section 404 permit for the discharge of fill material into wetlands. Wetland impacts have been minimized by design, and the result would be a permanent loss of approximately 1.55 acres of jurisdictional wetlands. Compensatory mitigation for the project will be required and will be determined during the permitting process. It is expected that compensatory mitigation will be in the form of an approved in-lieu fee program.

To minimize impacts to nesting migratory birds, vegetation will be cleared prior to May 5th. This is before the recommended timeframe for avoiding clearing vegetation for nesting songbirds set forth by the USFWS. Temporary impacts to vegetation from construction activities will also be minimized as much as possible during construction.

Should construction activities unearth any archaeological or cultural resources, construction would be halted in the immediate area, and the SHPO would be contacted.

6.0 COMMENTS AND COORDINATION

The Association of Village Council Presidents hosted a public meeting on behalf of the Native Village of Napakiak, in Napakiak, on March, 15, 2011. A sign-in sheet for the meeting may be found in Appendix G. Maps of the proposed improvements to community streets were presented by engineering staff from RPKA. Residents were asked for comments and/or discussion. There were no issues brought up by participants during or after the public meeting. Participants were in favor of the proposed road upgrades.

An agency scoping letter seeking comments from local, state and federal agencies was sent by RPKA on May 25, 2011. Table 2 lists each agency that provided comments during the scoping process. A copy of the scoping document with a list of the agencies contacted and their comments can be found in Appendix G.

Table 2: List of agencies that responded to scoping letters for the Napakiak Community Streets Project in Napakiak, AK.

Name	Agency
James Bales	Alaska Dept. of Fish and Game
Kimberley Klein	U.S. Fish and Wildlife Service
Matt Eagleton	National Oceanic and Atmospheric Administration
Beth Pendleton	USDA Forest Service
Daniel Reichardt	ADEC Drinking Water Program
Matthew Varner	Bureau of Land Management
Cynthia Zuelow-Osborne	Alaska Dept. of Natural Resources
Christina Nahorney	Alaska Dept. of Natural Resources

7.0 LIST OF PREPARERS

Name	Affiliation	Expertise Applied to Document
Eugene R. Virden	Bureau of Indian Affairs	Document Review
Mark Kahklen	Bureau of Indian Affairs	Document Review
Terry Schumann	Federal Highway Administration	Document Review
Cathy A. Needham	Kai Environmental Consulting Services	Co-author, Document Review
Sandra West	Kai Environmental Consulting Services	Co-author
Michael Brock	Rodney P. Kinney Associates, Inc.	Project Engineer, Document Review

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8.0 REFERENCES

Alaska Department of Commerce, Community & Economic Development (ADCCED), Division of Community and Regional Affairs. 2010. *Alaska Community Online Database*: http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm , accessed December, 2011.

Alaska Department of Environmental Conservation (ADEC). 2006. *Alaska Rural Dust Control Alternatives*, Sierra Research Inc. http://www.dec.state.ak.us/air/anpms/doc-anpms/JAN06_dust_ctrl.pdf

Alaska Department of Fish and Game (ADFG), 2012a. Division of Sport Fish, Anadromous Waters Catalog: <http://www.adfg.alaska.gov/sf/SARR/AWC/index.cfm?adfg=maps.interactive>

Alaska Department of Fish and Game (ADFG), 2012b. Anadromous Fish Distribution Viewer, found at http://gis.sf.adfg.state.ak.us/AWC_IMS/viewer.htm

Alaska Department of Labor and Workforce Development (ADLWD), Research and Analysis. Alaska Local and Regional Information: <http://live.laborstats.alaska.gov/alari/>

ASCG Incorporated. February, 2007. Original Napakiak Long Range Transportation Plan.

CPWA, 2005. *Dust Control for Unpaved Roads, A Best Practice by the National Guide to Sustainable Municipal Infrastructure*, Canadian Public Works Association.

Map of National Wild and Scenic Rivers, Alaska Region, accessed Jan. 2012. <http://www.rivers.gov/maps/zoom/alaska/alaska.html>

NOAA, December 2005. Alaska Fisheries Science Center, Community Profiles for North Pacific Fisheries, p 451-453. <http://www.afsc.noaa.gov/Publications/AFSC-TM/NOAA-TM-AFSC-160/NOAA-TM-AFSC-160.pdf>

National Oceanic and Atmospheric Administration, Essential Fish Habitat Mapper. http://sharpfin.nmfs.noaa.gov/website/EFH_Mapper/map.aspx

Raynolds, MA, Walker, DA and Maier, HA. 2006. *Alaska Arctic Tundra Vegetation Map*. Scale 1:4,000,000. Conservation of Arctic Flora and Fauna (CAFF) Map No. 2, U.S. Fish and Wildlife Service, Anchorage, Alaska. ISBN-13: 978-0-9767525-1-6; ISBN-10: 0-9767525-1-4.

RPKA Assoc., March, 2009. Napakiak Long Range Transportation Update.

US Army Corps of Engineers, Flood Hazard Data. http://www.poa.usace.army.mil/en/cw/fld_haz

US Army Corps of Engineers, March, 2009. Alaska Baseline Erosion Assessment, Study Findings and Technical Report. http://www.climatechange.alaska.gov/docs/iaw_USACE_erosion_rpt.pdf

US Census Bureau, 2010. American Fact Finder, American Community Survey,
<http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

US Fish and Wildlife Service (USFWS), Protecting Migratory Birds,
http://alaska.fws.gov/fisheries/fieldoffice/anchorage/pdf/vegetation_clearing.pdf

Wentworth, C. July, 2007. USFWS. Subsistence Migratory Harvest Study, Yukon-Kuskokwim
Delta 2001-2005. http://alaska.fws.gov/ambcc/ambcc/Harvest/YKD_070730.pdf

APPENDIX A: PRELIMINARY WETLAND REPORT

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Napakiak Community Streets

Preliminary Wetland Report (January 2012)



Prepared for Applicant: Native Village of Napakiak

P.O. Box 34069

Napakiak, AK 99634

On behalf of Agent:

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Preliminary Wetland Report Napakiak Community Streets Project, Alaska

Applicant: Native Village of Napakiak
Agent: Rodney P. Kinney Associates, Inc.
Sub-Agent/Author: Cathy A. Needham, Kai Environmental Consulting Services, LLC

1.0 INTRODUCTION:

The purpose of this document is to provide the U.S. Army Corps of Engineers with sufficient information for making a jurisdictional determination on the number of wetland acres potentially affected by upgrades to the community streets within Napakiak, Alaska. This document may also be used for developing a mitigation statement for U.S. Army Corps of Engineer permitting.

The proposed project is to upgrade existing streets within Napakiak, Alaska to improve access throughout the community, and to build a new road segment for access to housing. The upgrades are approximately 1.1 miles of existing roads and the new road is 0.3 miles for a total of 1.4 miles of road work. The project area is defined as the total length of the roads and a corresponding project area width of 80 feet. The project area contains a total of 13.8 acres and can be seen in Figure 1.

2.0 STUDY SITE DESCRIPTION:

Napakiak is located on the north bank of the Kuskokwim River southwest of Bethel. The community is located on an island between the Kuskokwim River and Johnson's Slough. The legal description for the project is Sections 17 and 18 of Township 7 North, Range 72 West of the Seward Meridian in the Bethel Recording District. Figure 1 represents the entire project area.

The project serves 354 people in the community of Napakiak (ADCCED certified population in 2010). The climate in Napakiak is influenced by storms in the Bering Sea, as well as by inland continental weather. The average annual precipitation is 16 inches with 50 inches of snowfall. Temperature extremes range from 86 to -46 degrees Fahrenheit.

The community has a gravel runway which receives regular air service from Bethel. Goods are also transported to the community via barge on the Kuskokwim River. Boats provide transportation between communities in the summer, and snowmobile, ATV and passenger vehicles provide transportation in the winter when the river becomes an ice road.

2.1 Existing Wetland Data

National Wetland Inventory (NWI) data from the U.S. Fish and Wildlife Service was available in digital format for the project area. The NWI data show that the Napakiak is situated along the bank of the Kuskokwim River and Johnson's Slough. The community is classified into two wetland types (based on Cowardin, et al., 1979):

- palustrine emergent persistent/palustrine scrub-shrub with broad-leaved deciduous shrubs that is permanently saturated (PEM1/PSS1C); and
- palustrine emergent persistent/palustrine scrub-shrub with broad-leaved deciduous shrubs that is seasonally flooded (PEM1/PSS1B)

2.2 Geomorphology, Soils, and Hydrology

Soils throughout Napakiak have high mineral content, as either sandy or silty soils where parent material is deposited by the Kuskokwim River. In areas that have not been more recently affected by floods, some organic materials have been accumulating over time.

Napakiak is located on an island, between the Kuskokwim River and Johnson's Slough. The community is susceptible to the freeze and thaw cycles of the Kuskokwim River, as it is located within the river floodplain. Flooding frequency and severity is rated high as a result of overflow and ice jams. The water table is near the surface throughout the community.

2.3 Vegetation

The Alaska Arctic Tundra Vegetation Map (Raynolds et al, 2006) shows Napakiak in bioclimate subzone E as part of a wet acidic complex with low shrub tundra. This classification description generally includes wet sedge communities with *Carex aquatilis*, *Eriophorum angustifolium*, *Carex rostrata*, and *Sphagnum spp.* It also includes shrub thickets where predominant species include *Salix arbusculoides*, *Salix alasensis*, *Salix planifolia* and *Alnus viridis fruticosa*.

Table 1 lists all of the plant species and their indicator status, identified during the wetland field investigation for the Napakiak Community Streets Project.

Table 1: Plant species found at Napakiak Community Street project, with indicator status (USFWS, 1996).

Scientific Name	Common Name	Indicator status
<i>Alnus sp.</i>	Alder	FAC
<i>Calamagrostis canadensis</i>	Bluejoint	FAC
<i>Cicuta douglasii</i>	Water hemlock	OBL
<i>Cinna latifolia</i>	Drooping wood-reed	OBL
<i>Deschampsia caespitosa</i>	Tufted hair grass	FAC
<i>Epibolium angustifolium</i>	Fireweed	FAC
<i>Equisetum arvense</i>	Common horsetail	FAC
<i>Equisetum fluviatile</i>	Swamp horsetail	OBL
<i>Heracleum lanatum</i>	Cow-parsnip	FACU
<i>Poa pratensis</i>	Kentucky bluegrass	FACU
<i>Polemonium acutiflorum</i>	Tall Jacob's ladder	FAC
<i>Potentilla palustris</i>	Marsh cinquefoil	OBL
<i>Ribes triste</i>	Wild red currant	FAC
<i>Rumex articus</i>	Artic dock	FAC
<i>Salix alaxensis</i>	Felt-leaf willow	FAC
<i>Salix arbusculoides</i>	Little-tree willow	FACW
<i>Salix planifolia</i>	Diamond-leaf willow	FACW
<i>Salix richardsonii</i>	Richardson willow	FAC
<i>Sanguisorba canadensis</i>	Sitka burnet	FACW
<i>Tiarella trifoliata</i>	Three-leaf lace flower	FAC

3.0 METHODS:

Field data was collected September 13-14, 2010 using the U.S. Army Corps of Engineers Alaska Regional Supplement to the 1987 Corps of Engineers Wetland Delineation Manual. Sampling locations were chosen based on an initial proposed project area. The entire community was walked to determine different vegetation cover types, and to areas that were representative throughout the project. The proposed alignment and project area were amended after the field investigation, therefore sampling points may not lie within the current project area assessed in this report. All sampling locations were used as reference.

There were a total of 4 sampling sites where a full set of data was collected. At each sampling site, field data was collected for each of three wetland indicators: vegetation, hydric soils, and hydrology. Vegetation was identified to species and cover was estimated. The presence of hydrophytic vegetation was determined by both the dominance test and prevalence index test.

Vegetation classification was determined using the U.S. Fish and Wildlife Service's Alaska Plant Wetland Indicator Status (1996) reference. Hydric soils were determined by digging soil pits to 20" depth. Soil profiles were determined using Munsell soil charts, and observations were made for determining hydric soils using the "Characteristics of Hydric Soils in Alaska" (NRCS, 2005) guidance. Hydrology was determined by visual observation of landscape and the presence of saturated or inundated soils in the soil pits.

The wetland boundary map was drawn in GIS. The proposed road alignment with a 40' buffer to either side of the road was drawn to represent the project area. Within this defined project area, the current existing road and associated fill were drawn from an aerial photo and the polygon was labeled as a previously filled wetland. The remaining area was determined to be wetlands.

4.0 RESULTS

Data from all two of the four sampling locations supported the presence of wetlands. The other two sampling locations did not support a wetland determination, however atypical situations may exist. Sampling locations are denoted on Figure 1. Original data sheets for each sampling location are in Appendix A. Soil pit and site photos corresponding with each sampling location are found in Appendix B.

Data point 001 did not pass the three parameter test for being a wetland. The site passed both the dominance and prevalence index test for the presence of hydrophytic vegetation. The site hosted three willow species in the shrub layer, and an obligate grass (*Cinna latifolia*) in the herbaceous layer. The soil profile was 100% sandy soils, which were unconsolidated and did not show any redox features. There were no indicators of hydric soils. In addition, there were no primary indicators of hydrology at the site, and only one secondary hydrology indicator (the FAC-neutral test). While the site could not outright be determined a wetland, there are other factors to consider before ruling out the presence of a wetland at the soil pit location. The soil pit is approximately 1000' west of Kuskokwim River and 1000' south of Johnson Slough (Figure 1), and is located in a flat (<2% slope) location on an active floodplain. It is likely that groundwater discharge is high given the low organic content in the soils, which were sandy. The vegetation layer is predominately shrubs with some trees, which could cause higher evapotranspiration rates. In addition, the presence of hydrophytic vegetation was strong in both the dominance and prevalence index test. The site is most likely a natural atypical wetland.

Data point 002 passed all three parameters for being a wetland. Hydrophytic vegetation passed both the dominance and prevalence test, where the dominant vegetation layer is the herbaceous layer. Hydric soils were present as Alaska Redox and the soil material is silt, most likely from the Kuskokwim River. There were four primary indicators of hydrology present; surface water

at a depth of 1”, a high water table, saturation of soils to the soil surface, inundation visible on aerial imagery. The site is determined a palustrine emergent (PEM) classified wetland.

Data point 003 passed all three parameters for being a wetland. At the site, hydrophytic vegetation passed both the dominance and prevalence test, where the dominant vegetation was the shrub/sapling layer. Hydric soils were naturally problematic, where the soil profile met the criteria for Alaska Redox with 2.5Y Hue. Two primary indicators and two secondary indicators were present. Primary indicators included saturation soils to the surface of the soil pit and a dry season water table (where water was present at 13”). Secondary indicators included drainage patterns and passing the FAC-neutral test. The site is determined a palustrine scrub-shrub (PSS) classified wetland.

Data point 004 also most likely represents a naturally atypical wetland. Hydrophytic vegetation passed the dominance test, but failed the prevalence test. Only one test is required to determine that hydrophytic vegetation is present. There were no indicators of hydric soils, however 8” into the soil profile there was approximately 15% redox features. There were no primary or secondary indicators of hydrology. As with data point 001, the 004 data point is located on a flat (<2%) area in the floodplains of the Kuskokwim River (approximately 200’) and Johnson Slough (approximately 500’). The site has thick vegetation, which may be accelerating evapotranspiration. And the river is undercutting the banks of the Kuskokwim, which may be dewatering the site.

Data points 003 and 004 were outside of the final project area defined for the project, however they are used in this study by reference to represent areas throughout the community that data may not have been easy or allowed to be collected.

5.0 CONCLUSIONS

Although naturally atypical and problematic conditions exist in Napakiak, it has been determined that the entire community lies on wetlands or within the floodplain of the Kuskokwim River. Therefore, the entire project area is within wetlands. There is pre-existing development within the project area, therefore GIS was used to delineate out previously filled wetlands and the remainder of the project area is considered a mix of PEM/PSS wetland. The total project area is 13.8 acres, where approximately 6 acres contains fill and 7.8 acres is PEM/PSS wetlands.

REFERENCES

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of Interior, Fish and Wildlife Service, Office of Biological Services. Washington, D.C.

Johnson, D, Kershaw, L, MacKinnon, A, and Pojar, J. 1995. *Plants of the Western Boreal Forest and Aspen Parkland*. Lone Pine Publishing. Canada.

Raynolds, MA, Walker, DA and Maier, HA. 2006. *Alaska Arctic Tundra Vegetation Map*. Scale 1:4,000,000. Conservation of Arctic Flora and Fauna (CAFF) Map No. 2, U.S. Fish and Wildlife Service, Anchorage, Alaska. ISBN-13: 978-0-9767525-1-6; ISBN-10: 0-9767525-1-4

U.S. Army Corps of Engineers, September 2007. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region (Version 2.0). U.S. Army Engineer Research and Development Center. ERDC/EL TR-07-24

U.S. Department of Agriculture, Natural Resources Conservation Service. 2005. Field Indicators of Hydric Soils in Alaska: A User Guide. Compiled by Joseph P. Moore. Palmer, AK.

U.S. Fish and Wildlife Service, 1996. Alaska Plant Wetland Indicator Status.
www.kenaiwetlands.net/AKWetlandIndicatorStatus.html

Viereck, LA, and Little, Jr., EL. 2007. *Alaska Trees and Shrubs*. University of Alaska Press. Fairbanks, AK.

White, HA and Williams, M, eds. 1974. *The Alaska-Yukon Wild Flowers Guide*. Alaska Northwest Publishing Company. Anchorage, AK

Figure 1: Napakiak Wetland Map

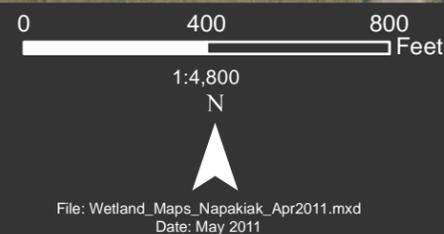
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Wetland Map Napakiak Road Project

Township 7N, Range 72W, Sections 17/18
Seward Meridian
Bethel Recording District

USGS 1:63,360 Quadrangle-
Bethel C-8



Sampling Data (Sept 2010)

- Soil Pit
- PEM/PSS
- Previously Filled

- Proposed Centerlines
- ROW (80ft wide total)

Appendix A: Wetland Data Sheets

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WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: NAPAKIAK COMMUNITY STREETS Borough/City: NAPAKIAK Sampling Date: 9/14/10
 Applicant/Owner: NATIVE VILLAGE OF NAPAKIAK Sampling Point: P001
 Investigator(s): CM Landform (hillside, terrace, hummocks, etc.): FLAT
 Local relief (concave, convex, none): NONE Slope (%): 2
 Subregion: WESTERN Lat: 60N 41.588 Long: 161W 58.442 Datum: NAD 84
 Soil Map Unit Name: NONE NWI classification: PEM3/SS4B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: <u>Pit pics 0615-0621 GPS 196 ~20' from road ROW</u> <u>Site pics 0608-0614</u>	

VEGETATION - Use scientific names of plants. List all species in the plot.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Alnus sp.</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>25</u> x 1 = <u>25</u> FACW species <u>1520</u> x 2 = <u>40</u> FAC species <u>37</u> x 3 = <u>111</u> FACU species <u>10</u> x 4 = <u>40</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>92</u> (A) <u>216</u> (B) Prevalence Index = B/A = <u>2.35</u>
Total Cover: <u>Below</u>				
50% of total cover: _____ 20% of total cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Alnus sp.</u>	<u>25</u>	<u>YES</u>	<u>FAC</u>	
2. <u>Salix arbusculoides</u> <u>litter-covered</u>	<u>25</u>	<u>YES</u>	<u>FACW</u>	
3. <u>Salix planifolia</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>	
4. <u>Salix alaxensis</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
Total Cover: <u>55</u>				
50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u>				
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Cinna latifolia</u>	<u>25</u>	<u>YES</u>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Poa pratensis</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>	
3. <u>Equisetum arvense</u>	<u>1</u>	<u>NO</u>	<u>FAC</u>	
4. <u>Epilobium angustifolium</u>	<u>1</u>	<u>NO</u>	<u>FAC</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
Total Cover: <u>37</u>				
50% of total cover: <u>18.5</u> 20% of total cover: <u>7.4</u>				
Plot size (radius, or length x width) <u>30'</u>	% Bare Ground <u>60</u>			Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
% Cover of Wetland Bryophytes <u>0</u> (Where applicable)	Total Cover of Bryophytes <u>0</u>			

Remarks:

SOIL

Sampling Point: D001

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-24"	M.5YR 4/1	100					Sandy	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol or Histel (A1)	<input type="checkbox"/> Alaska Color Change (TA4) ⁴	<input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Alaska Alpine Swales (TA5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Alaska Redox With 2.5Y Hue	
<input type="checkbox"/> Thick Dark Surface (A12)		
<input type="checkbox"/> Alaska Gleyed (A13)	³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.	
<input type="checkbox"/> Alaska Redox (A14)	⁴ Give details of color change in Remarks.	
<input type="checkbox"/> Alaska Gleyed Pores (A15)		

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: *unconsolidated sandy soils
 No redox features
 no perma frost w/in 24"*

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Salt Deposits (C5)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Microtopographic Relief (D4)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____

Water Table Present? Yes _____ No Depth (inches): _____

Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Napakriak Community Streets Borough/City: NAPAKRIAK Sampling Date: 9/14/10
 Applicant/Owner: Native Village of Napakriak Sampling Point: POO2
 Investigator(s): CN Landform (hillside, terrace, hummocks, etc.): FLAT
 Local relief (concave, convex, none): NONE Slope (%): FLAT
 Subregion: Western Lat: 60N 41.775 Long: 110W 59.0024 Datum: NAD83
 Soil Map Unit Name: NONE NWI classification: PEM1/PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (if no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (if needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: <u>Site - 682, 683, 695</u> <u>GPS 210</u> <u>~ 30' from road entrance</u> <u>Pit 687, 691, 694</u> <u>~ trees in road toe</u>	

VEGETATION - Use scientific names of plants. List all species in the plot.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>None</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____				
Total Cover: _____				
50% of total cover: _____ 20% of total cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Salix arbusculoidea</u>	<u>2</u>	<u>NO</u>	<u>FACW</u>	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species <u>20</u> x 1 = <u>20</u>
3. _____				FACW species <u>2</u> x 2 = <u>4</u>
4. _____				FAC species <u>55</u> x 3 = <u>165</u>
5. _____				FACU species <u>1</u> x 4 = <u>4</u>
6. _____				UPL species <u>0</u> x 5 = <u>0</u>
Total Cover: <u>Below</u>				Column Totals: <u>84</u> (A) <u>199</u> (B)
50% of total cover: _____ 20% of total cover: _____				Prevalence Index = B/A = <u>2.37</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Calla palustris canadensis</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>	<input checked="" type="checkbox"/> Dominance Test is >50%
2. <u>Potentilla palustris</u>	<u>15</u>	<u>YES</u>	<u>FAC</u>	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0
3. <u>Polemonium acutiflorum</u>	<u>15</u>	<u>YES</u>	<u>OBL</u>	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Deschampsia cespitosa</u>	<u>15</u>	<u>YES</u>	<u>FAC</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Equisetum flavaticum</u>	<u>10</u>	<u>NO</u>	<u>OBL</u>	
6. <u>Rumex arcticus</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	
7. <u>Horacleum lanatum</u>	<u>1</u>	<u>NO</u>	<u>FACU</u>	
8. <u>Cicuta douglasii</u>	<u>1</u>	<u>NO</u>	<u>OBL</u>	
9. _____				
10. _____				
Total Cover: <u>84</u>				
50% of total cover: <u>42</u> 20% of total cover: <u>16.8</u>				
Plot size (radius, or length x width) <u>30</u> % Bare Ground <u>0</u>				
% Cover of Wetland Bryophytes <u>0</u> Total Cover of Bryophytes <u>0</u>				
(Where applicable)				
Remarks:				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

SOIL

Sampling Point: P002

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20"	5Y 3/1	85	7.5YR 5/6	15			Silty	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol or Histel (A1)	<input type="checkbox"/> Alaska Color Change (TA4) ⁴
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Alaska Alpine Swales (TA5)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Alaska Redox With 2.5Y Hue
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Alaska Gleyed (A13)	
<input checked="" type="checkbox"/> Alaska Redox (A14)	³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
<input type="checkbox"/> Alaska Gleyed Pores (A15)	⁴ Give details of color change in Remarks.
	<input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
	<input type="checkbox"/> Other (Explain in Remarks)

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-stained Leaves (B9)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Salt Deposits (C5)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Microtopographic Relief (D4)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Marl Deposits (B15)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes No Depth (inches): 1"

Water Table Present? Yes No Depth (inches): _____

Saturation Present? Yes No Depth (inches): 0

(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Water table unknown -> water in pit from surface -> let pit sit at equilibrium ~ 20 min

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Napakik Community Street Borough/City: Napakik Sampling Date: 9/14/16
 Applicant/Owner: Native Village of Napakik Sampling Point: P003
 Investigator(s): CV Landform (hillside, terrace, hummocks, etc.): Flat
 Local relief (concave, convex, none): Flat Slope (%): 0
 Subregion: Western Lat: 66N 41.787 Long: W 141 58.753 Datum: WGS84
 Soil Map Unit Name: _____ NWI classification: DEM/PS
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: <u>GPS 214</u> <u>Site pics 714-718</u> <u>outside ROW of road</u> <u>pit pics 910-714, 715</u>	

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>NONE</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____				
Total Cover: _____				
50% of total cover: _____		20% of total cover: _____		
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Alnus sp</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Salix alaxensis</u> <u>brake leafed</u>	<u>2</u>	<u>NO</u>	<u>FAC</u>	OBL species <u>0</u> x 1 = <u>0</u>
3. <u>Salix arbusculoides</u> <u>skinnyleaf</u>	<u>20</u>	<u>YES</u>	<u>FACW</u>	FACW species <u>35</u> x 2 = <u>70</u>
4. <u>Ribes triste</u>	<u>3</u>	<u>NO</u>	<u>FAC</u>	FAC species <u>14</u> x 3 = <u>42</u>
5. _____				FACU species <u>0</u> x 4 = <u>0</u>
6. _____				UPL species <u>0</u> x 5 = <u>0</u>
Total Cover: <u>30</u>				Column Totals: <u>49</u> (A) <u>112</u> (B)
50% of total cover: <u>15</u>		20% of total cover: <u>6</u>		Prevalence Index = B/A = <u>2.29</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Sagittaria canadensis</u> <u>beet</u>	<u>15</u>	<u>YES</u>	<u>FACW</u>	<u>X</u> Dominance Test is >50%
2. <u>Equisetum arvense</u>	<u>1</u>	<u>NO</u>	<u>FAC</u>	<u>X</u> Prevalence Index is ≤3.0
3. <u>Tiarella trifoliata</u>	<u>3</u>	<u>NO</u>	<u>FAC</u>	____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				____ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
Total Cover: <u>19</u>				
50% of total cover: <u>9.5</u>		20% of total cover: <u>3.8</u>		
Plot size (radius, or length x width) <u>20'</u>	% Bare Ground <u>40</u>			
% Cover of Wetland Bryophytes <u>0</u>	Total Cover of Bryophytes <u>0</u>			
(Where applicable)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
Remarks:				

SOIL

Sampling Point: P003

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-24"	2.5Y 4/1	75	10YR 4/3	25			Silty	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol or Histel (A1)	<input type="checkbox"/> Alaska Color Change (TA4) ⁴
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Alaska Alpine Swales (TA5)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Alaska Redox With 2.5Y Hue
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Alaska Gleyed (A13)	<input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
<input type="checkbox"/> Alaska Redox (A14)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Alaska Gleyed Pores (A15)	

³One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
⁴Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: Possible Alaska Redox? Saturated soils at sampling.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Salt Deposits (C5)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Marl Deposits (B15)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): 12"

Saturation Present? (includes capillary fringe) Yes No Depth (inches): 0

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: ditch/depression between road & sample site (less shrub/marsh cinquefoil) Standing H₂O

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Napakriak Community Streets Borough/City: Napakriak Sampling Date: 9/14/10
 Applicant/Owner: Native Village of Napakriak Sampling Point: P004
 Investigator(s): CN Landform (hillside, terrace, hummocks, etc.): Flat
 Local relief (concave, convex, none): Flat Slope (%): 2
 Subregion: Western Lat: 60N 41.642 Long: 141W 58.153 Datum: REM1/FSS
 Soil Map Unit Name: None NWM classification: WSSH 2
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No X
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Remarks: <u>GPS 215</u> <u>< 20' Road</u> <u>pit pics 723-725 site pics 726</u>	

VEGETATION - Use scientific names of plants. List all species in the plot.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>None</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. <u> </u>				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. <u> </u>				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>4/5</u> (A/B)
4. <u> </u>				
Total Cover: <u> </u>				
50% of total cover: <u> </u> 20% of total cover: <u> </u>				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Salix neharsonii</u>	<u>15</u>	<u>YES</u>	<u>FAC</u>	Total % Cover of: <u> </u> Multiply by: <u> </u>
2. <u>Salix planifolia</u>	<u>5</u>	<u>YES</u>	<u>FACW</u>	OBL species <u>0</u> x 1 = <u>0</u>
3. <u> </u>				FACW species <u>5</u> x 2 = <u>10</u>
4. <u> </u>				FAC species <u>70</u> x 3 = <u>210</u>
5. <u> </u>				FACU species <u>23</u> x 4 = <u>92</u>
6. <u> </u>				UPL species <u>0</u> x 5 = <u>0</u>
Total Cover: <u>20</u>				Column Totals: <u>98</u> (A) <u>312</u> (B)
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				Prevalence Index = B/A = <u>3.18</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Epilobium angustifolium</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>	<u>X</u> Dominance Test is >50%
2. <u>Callamagrostis canadensis</u>	<u>30</u>	<u>YES</u>	<u>FAC</u>	<u> </u> Prevalence Index is ≤3.0
3. <u>Hieracium lanatum</u>	<u>3</u>	<u>NO</u>	<u>FACU</u>	<u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Deschampsia cespitosa</u>	<u>25</u>	<u>YES</u>	<u>FAC</u>	<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u> </u>				
6. <u> </u>				
7. <u> </u>				
8. <u> </u>				
9. <u> </u>				
10. <u> </u>				
Total Cover: <u>78</u>				
50% of total cover: <u>39</u> 20% of total cover: <u>15.6</u>				
Plot size (radius, or length x width) <u>15'</u>	% Bare Ground <u>0</u>			
% Cover of Wetland Bryophytes <u>0</u>	Total Cover of Bryophytes <u>0</u>			
Remarks: <u>dead grasses</u>				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>

SOIL

Sampling Point: P004

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8"	7.5YR 3/4	100					organic	w/ silt & roots
8-17"	10YR 5/1	85	5YR 4/4	15			silty	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol or Histel (A1)	<input type="checkbox"/> Alaska Color Change (TA4) ⁴
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Alaska Alpine Swales (TA5)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Alaska Redox With 2.5Y Hue
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Alaska Gleyed (A13)	<input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
<input type="checkbox"/> Alaska Redox (A14)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Alaska Gleyed Pores (A15)	

³One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
⁴Give details of color change in Remarks.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Salt Deposits (C5)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> FAC-Neutral Test (D5) <u>N0</u>
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Marl Deposits (B15)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____

Water Table Present? Yes _____ No Depth (inches): _____

Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix B: Sampling Site Photos

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Sampling Point: P001 (Atypical wetland)



Sampling Point: P002 (PEM)



Sampling Point: P003 (PSS)



Sampling Point: P004 (Atypical wetland)



APPENDIX B: U.S. ARMY CORPS OF ENGINEERS
CONDITIONAL JURISDICTIONAL DETERMINATION

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REPLY TO
ATTENTION OF:

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

APR 20 2012

Regulatory Division
POA-2012-88

Rodney P. Kinney Associates, Inc.
Attention: Mr. Brian Pederson
16515 Centerfield Drive, Suite 101
Eagle River, Alaska 99577

Dear Mr. Pederson:

This is in response to your request, on behalf of the Alaska Village Council Presidents and the Native Village of Napakiak, for a jurisdictional determination for 13.8 acres of project area for the Napakiak Community Streets Project. It has been assigned number POA-2012-88, Kuskokwim River, which should be referred to in all correspondence with us. The project site is located within Sections 17 and 18, T. 7 N., R. 72 W., Seward Meridian; USGS Quad Map Bethel C-8; Latitude 60.6962° N., Longitude 161.9847° W.; in Napakiak, Alaska.

Based on our review of your submitted report (Napakiak Community Streets, Preliminary Wetland Report, January, 2012, prepared by Kai Environmental Consulting Services), we have determined the above property contains waters of the U.S., including wetlands, under the Corps' regulatory jurisdiction. Specifically, there are 7.8 acres of wetlands in the project area. These waters of the U.S. are shown on the wetland map in the report.

A copy of the Approved Jurisdictional Determination form is available at www.poa.usace.army.mil/reg/ApprovedJDs.htm under the above file number. This approved jurisdictional determination is valid for five (5) years from the date of this letter, unless new information supporting a revision is provided to us before the expiration date. Enclosed is a Notification of Administrative Appeal Options and Process and Request for Appeal form (see section titled "Approved Jurisdictional Determination").

Department of the Army authorization is required if you propose to place dredged and/or fill material into waters of the U.S., including wetlands. Section 404 of the Clean Water Act requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including jurisdictional wetlands (33 U.S.C. 1344). The Corps defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

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

Please contact me via email at don.p.kuhle@usace.army.mil, by mail at the address above, by phone at (907) 753-2780, or toll free from within Alaska at (800) 478-2712, if you have questions.

Sincerely,

A handwritten signature in cursive script that reads "Don P. Kuhle".

Don P. Kuhle
Project Manager

Enclosures

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: **Association of Village Council Presidents** File Number: **POA-2012-88** Date: **April 25, 2012**

Attached is: See Section below

	INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of Permission)	B
	PERMIT DENIAL	C
X	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

THIS REQUEST FOR APPEAL FORM MUST BE RECEIVED BY: June 25, 2012

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

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

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

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

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

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

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

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

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

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

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

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

In order for a Request For Appeal to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within 60 days of the date of the Notice of Appeal Process. It is not necessary to submit a Request For Appeal form to the Division office if you do not object to the decision.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

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

Don P. Kuhle, Project Manager
Alaska District Corps of Engineers
CEPOA-RD-N
P.O. Box 6898
JBER, AK 99506-0898
(907) 753-2780
(800) 478-2712 (toll free in AK)

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

Commander
USAED, Pacific Ocean Division
ATTN: CEPOD-PDC/Thom Litche
Building 525
Fort Shafter, HI 96858-5440

To submit this form, mail to the address above

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

Signature of appellant or agent.

Date:

Telephone number:

APPENDIX C: U.S. FISH AND WILDLIFE SERVICE
SECTION 7 CONSULTATION DETERMINATION

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Anchorage Fish & Wildlife Field Office
605 West 4th Avenue, Room G-61
Anchorage, Alaska 99501-2249



In reply refer to:
AFWFO

July 18, 2011

Aaron Hiemstra
Rodney P. Kinney Associates Inc.
16515 Centerfield Drive
Eagle River, Alaska 99577

Re: Road improvement projects in Five Villages:
Alakanuk (*Consultation numbers 2011-0162*)
Chevak (*Consultation numbers 2011-0163*)
Crooked Creek (*Consultation numbers 2011-0138*)
Napakiak (*Consultation numbers 2011-0165*)
Scammon Bay (*Consultation numbers 2011-0164*)

Dear Aaron,

On June 22, 2011, we received your request for information regarding threatened and endangered species listed under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq., as amended, ESA) that may be affected by your proposal to conduct road improvements in the listed villages. These projects are needed to rehabilitate trails and roadways that are currently in a state of disrepair or do not meet the safety needs of the communities. The US Fish and Wildlife Service (Service) is providing information on listed species pursuant to section 7 of the ESA. Funding for these projects is provided by the Association of Village Council Presidents, the Bureau of Indian Affairs, and/or the Denali Commission. Construction will be conducted in 2012.

Listed species

Species listed under the ESA that may be found in or near the Yukon-Kuskokwim region include spectacled eider (*Somateria fischeri*, listed as threatened in 1993), North American breeding Steller's eider (*Polysticta stelleri*, listed as threatened in 1997), polar bear (*Ursus maritimus*, listed as threatened in 2008), and Pacific walrus (*Odobenus rosmarus divergens*, listed as a candidate species in 2011).

Alakanuk (*Consultation numbers 2011-0162*)

Spectacled eiders (*Somateria fischeri*, listed as threatened in 1993), may breed in the Alakanuk area. Around spring break-up, spectacled eiders select undisturbed nesting areas on wet coastal tundra near shallow ponds or lakes. Nests are usually within ten feet of sloughs, small rivers, or ponds. The females and their young remain until early September. Breeding and brood rearing may occur near the project area.

Offshore areas downstream from Alakanuk have been designated as critical habitat for the polar bear. Norton Sound is critical habitat when sea ice is present. Barrier islands at the mouth of the Yukon River are designated as critical habitat. A half-mile buffer around the barrier islands is designated as no disturbance critical habitat. The presence of polar bears near the mouth of the Yukon River is strongly associated with the presence and characteristics of sea ice in the area. Bears can be found as far south as the Yukon-Kuskokwim Delta during the winter months. As the ice pack retreats during spring and summer, the bears move north, departing from the area.

Pacific walrus may be found in the offshore marine waters downstream from Alakanuk. Pacific walrus distribution varies seasonally and is limited by water depth and ice conditions. Most of the population spends the summer months in the pack-ice of the Chukchi Sea; however several thousand animals, primarily adult males, use coastal haulouts in the Bering Sea during the ice-free season. The Pacific walrus is listed as a candidate species. Candidate species receive no official protection under the ESA. However, incorporating their needs into project plans will simplify the reinitiation process should they be listed in the future.

Scammon Bay (*Consultation numbers 2011-0164*)

Scammon Bay is located in an area known to be used by nesting spectacled eiders. Offshore marine areas near Scammon Bay provide habitat for spectacled eider staging and migration. Offshore areas have also been designated as Polar Bear critical habitat when sea ice is present, and walruses may also occupy these areas.

The road improvements in Alakanuk and Scammon Bay will be conducted only on existing road surfaces within the village footprint. These roads do not provide suitable nesting habitat for spectacled eiders. However, road construction may have indirect impacts to marine waters used by spectacled eiders, polar bears, and walruses if suitable measures are not taken to prevent release of sediments or contaminants during construction. We recommend incorporating measures into the project to prevent fuel spills from vehicles or equipment, and to contain any spills that occur. Additionally, all appropriate measures should be taken to prevent release of sediments into storm water. You have indicated that a construction Storm Water Pollution Prevention Plan will be prepared for each project. The SWPPPs should incorporate Best Management Practices to stabilize disturbed soil, protect waterways, and prevent unnecessary soil disturbance and wetland impacts.

Chevak (*Consultation numbers 2011-0163*)

The community of Chevak is located in an area designated as critical habitat for nesting spectacled eiders and known to be used for this purpose. Offshore marine areas near Chevak provide habitat for Steller's and spectacled eider staging and migration. Offshore areas have also been designated as Polar Bear critical habitat when sea ice is present, and may contain walruses. Work in Chevak includes installation of new hardened trails that will be constructed along the river. For new construction, we recommend avoiding impacts to nesting eiders by initiating ground-disturbing activities in suitable nesting habitat prior to or after the May 5 – July 25 nesting season. If activities cannot be initiated during this period, we recommend foot surveys for nests be conducted prior to construction. If nests are found, the project should be halted until after the nesting season. Please contact the Service for additional guidance on conducting nest surveys.

As with Scammon Bay and Alakanuk, road construction in Chevak may also have indirect impacts on marine waters due to release of sediments or contaminants. Measures should be taken to prevent release of sediments and contaminants into storm water.

Additional information is needed for regarding the source of fill to be used in the Alakanuk, Chevak, and Scammon Bay. If fill will be acquired from an area where spectacled eiders nest, this could affect nesting eiders. Will the fill come from an existing material source, or will a new source be opened? Will any

unusable materials be removed from existing roads for disposal? If so, where will materials be removed to? Are any other indirect or interrelated impacts being considered?

Please evaluate whether the proposed projects in Alakanuk, Chevak, and Scammon Bay will have “no effect” on listed species (that is, there are no listed species present). Alternately, if you determine that your project “may effect” listed species or critical habitat, please evaluate whether each project “is” or “is not” “likely to adversely affect” these species and the critical habitat in the area. Please describe any information you use to make this determination and any impact avoidance and minimization measures that will be included in the project. Please also provide additional information regarding the source of fill to be used for each project. After receiving your determination, the Service will review your evaluation. If we concur with your determination, the Section 7 review of these projects will be completed.

Crooked Creek (*Consultation numbers 2011-0138*)

The Service submitted a letter to you indicating there are no listed species present near Crooked Creek. This letter was sent June 15, 2011, and signed by Judy Jacobs. No further ESA coordination is required for this project at this time. However, you should contact us if project plans change, if a new species is listed, or critical habitat is determined that may be affected by the identified action.

Napakiak (*Consultation numbers 2011-0165*)

Our records indicate that there are no federally listed or proposed species, or designated or proposed critical habitat, within the action area of the proposed project in Napakiak. Therefore no further ESA coordination is required for this project at this time. However, you should contact us if project plans change, if a new species is listed, or critical habitat is determined that may be affected by the identified action.

This letter relates only to federally listed or proposed species and/or designated or proposed critical habitat under jurisdiction of the Service. It does not address species under the jurisdiction of National Marine Fisheries Service, or other legislation or responsibilities under the Fish and Wildlife Coordination Act, Migratory Bird Treaty Act, Marine Mammal Protection Act, Clean Water Act, National Environmental Policy Act, or Bald and Golden Eagle Protection Act. For more information on the endangered species consultation process, please see

http://alaska.fws.gov/fisheries/endangered/consultation_guide.htm.

You can use this on-line guide to determine if future projects will impact listed species. The Anchorage Fish and Wildlife Field Office consultation map is available on this website. If your project will occur within a green area of the map that has no listed or proposed species or designated or proposed critical habitat nearby, you can make the determination that the project will have "no affect", and no further consultation is necessary; simply cite the guidebook in your paperwork. However, if there are any uncertainties, or if you have any questions, please contact me at (907) 271-2066.

Thank you for your cooperation in meeting our joint responsibilities under the ESA. If you have any questions, please contact me at (907) 271-2066.

Sincerely,

Kimberly Klein
Endangered Species Biologist

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APPENDIX D: CULTURAL RESOURCES REPORT

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Archaeological Survey of the Napakiak Community Street Upgrades Project Area

Prepared for

Rodney P. Kinney and Associates, Inc.

By

Mark E. Pipkin



**PO Box 244752
Anchorage, AK 99524-4752**

April 2012

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TABLE OF CONTENTS

Project Background	1
Regional Prehistory and History	2
Known Historical Resources and Previous Archaeological Investigations	9
The Archaeological Survey	10
Conclusions and Recommendations	13
References	14

LIST OF FIGURES

Figure 1. Napakiak project area. 1

Figure 2. Typical road section. 2

Figure 3. Napakiak project area - detail. 11

Figure 4. Typical terrain. 12

Figure 5. Moravian Church. 12

Project Background

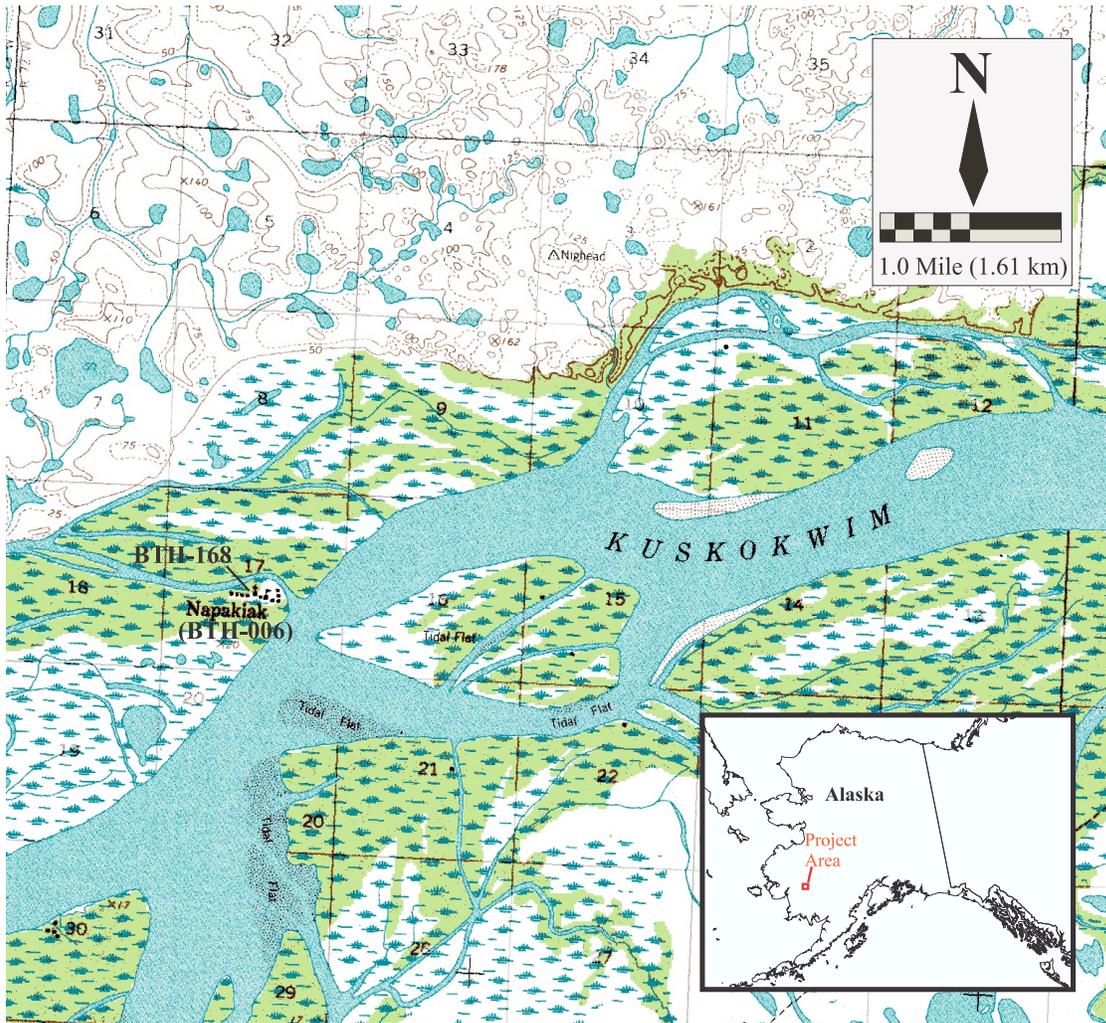


Figure 1. Napakiak project area (modified from U.S.G.S. Quadrangle Bethel C-8).

The village of Napakiak is located on the west bank of Johnson Slough, at its confluence with the Kuskokwim River, approximately 15-miles southwest of Bethel¹. The Association of Village Council Presidents, and the Native Village of Napakiak are proposing to undertake a transportation improvement project designed to improve internal access to various portions of the village. Project engineering and administration have been awarded to R. P. Kinney and Associates, Inc. (RPKA). This project will entail the resurfacing of approximately 7,500-feet of

¹Specifically, the elements of this project are located in the NW 1/4 Of the SW 1/4, and the NE 1/4 of the SE 1/4 of Section 17, T7N, R72W, Seward Meridian U.S.G.S. Quadrangle Bethel C-8.

existing road, and the spraying of a dust suppressing agent on all other roads in the community. Typically, the improved roads will have a 20-foot wide, and constructed by placing at least 18-inches of fill on the existing ground surface that will be topped with 6-inches of crushed aggregate. All of the roads are situated within a 40 to 50-foot wide right-of-ways that will be owned by the City of Napakiak. Drainage ditches along the side of the road may be reshaped, and culverts placed where needed for drainage. Construction materials will be provided from previously licenced material sources located outside the project area. Construction is anticipated to begin in 2013.

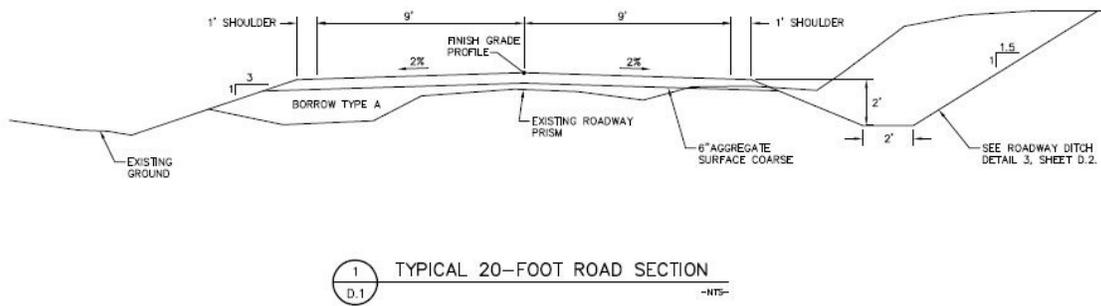


Figure 2. Typical road section.

Funding is being provided the Bureau of Indian Affairs - Indian Reservation Road Program. This is a Federal undertaking, and subject to the provisions of Section 106 of the National Historic Preservation Act of 1966. As a result, RPKA contracted with Walking Dog Archaeology to conduct an archaeological survey of the project area. This examination was conducted by Mark Pipkin on September 20, 2010.

Regional Prehistory and History

The human occupation of southwest Alaska began no earlier than 12,000 years ago, with the end of the last ice age. The earliest archaeological culture generally acknowledged to have occupied the region is the Paleoarctic tradition. This tradition's technology was characterized by the use of composite tools that utilized microblades, thin, parallel sided, stone flakes struck from prepared wedge-shaped cores. Their toolkit also included transversely flaked stone burins, and large generalized stone bifaces. Paleoarctic sites have been found at various locations in

southwest Alaska, and may date to 11,000 years ago. Paleoarctic remains have been found on the Alaska Peninsula at the mouth of the Kvichak River (Dumond 1981, 1984), and on Upper and Lower Ugashik Lakes (Dumond, Henn and Stuckenrath 1976; Henn 1978). These sites have been dated to approximately 7,600 to 8,000 years and 7,400 to 9,200 before present, respectively (Dumond, Henn and Stuckenrath 1976:119; Henn 1978:36). Undated core and blade sites have also been discovered in the western drainages of the Kilbuck and Akhlun Mountains, east of the Kuskokwim Delta (Ackerman 1996a:464; Gallison 1983:203, 224), in the more upper reaches of the Kuskokwim drainage along the Holitna River (Ackerman 1996b), and in the Lime Hills near the Stoney River (Ackerman 1996c).

There is perhaps evidence for another culture of equal antiquity that may have been present in the region at this time. The Spein Mountain site, located in the Kilbuck foothills, has yielded artifacts that have been likened to those of the Mesa complex, a Paleoindian like culture first identified along the northern slopes of the Brooks Range (Ackerman 1996d:460, 2001:93-94). While some of these northern Alaskan assemblages have been tentatively dated between 11,700 and 9,700 years ago (Kunz and Reanier 1995:25; Reanier 1995:44), some researchers have suggested that these assemblages may be somewhat younger and may represent a south to north retro-movement of Paleoindian cultural traits that occurred approximately 10,000 years ago (Dumond 2001:199-201). Similarities in the bifacial stone tools found at Spein Mountain to those belonging to Mesa complex, along with the lack of microblades, has led the investigator of the former site to topologically date it to approximately 10,000 years ago (Ackerman 2001:91).

Due to poor organic preservation, little is known of these earliest cultures other than some details concerning their stone tool technology. The same can be said of the next culture to occupy the region, the Northern Archaic tradition. This culture's stone tool technology is primarily characterized by side-notched, flaked projectile points. While using microblades, those from this area were produced from cores somewhat dissimilar to the distinctive wedge-shaped cores used by the Paleoarctic tradition (Dumond 1984:95-96). Similar collections have been found at various locations throughout the region, but are more commonly found in interior Alaska and northwestern Canada. It has been suggested that these collections may represent the more terrestrially orientated Na-Dene ancestors of the Athapaskans Indians (Anderson 1984:83; Dumond 1969:858-862; Workman 1977:73-74, 1978:429). Northern Archaic assemblages have been recovered from Ugashik Lakes area, from near the mouth of the Kvichak River (Dumond 1984:95-96), from Security Cove near Cape Newenham (Ackerman 1964:19-23; 2008), and from various sites located in the foothills of the Akhlun Mountains (Ackerman 2004:155-160). Radiocarbon dates from the Ugashik Lakes suggest this culture was present on the Alaska

Peninsula between 5,000 and 3,900 years ago (Dumond 1981:189, 1984:96). A radiocarbon sample from a Northern Archaic site on Kagati Lake in the foothills of the Akhlun Mountains has returned a date of approximately 4,200 years ago, and it has been suggested that this and other nearby sites may have been locations where Northern Archaic hunters intercepted migrating caribou herds (Ackerman 2004:161).

Shortly after the disappearance of the Northern Archaic peoples from the southwest Alaska's archaeological record, a different Eskimoan culture entered from the north. Found at numerous locations in western and northern Alaska, and in Arctic Canada, this culture is known as the Arctic Small Tool tradition because of its characteristic manufacture of finely flaked endblades and sideblades that were often produced from microblades. It has been suggested that the Arctic Small Tool people in southwest Alaska placed a primary emphasis on terrestrial and riverine resources, but also visited the coast periodically to procure sea mammals (Dumond 1984:105, 2005:69). No Arctic Small Tool tradition sites have been firmly identified in the Yukon-Kuskokwim Delta region, although their assemblages have been found on the Brooks River on the Alaska Peninsula (Dumond 1981:116-131, 1987:83-85, 2005:69), in the Wood-Tikchik Lake system (DePew and Biddle 2006:62), and along the Kvichak River (Holmes and McMahan 1996:26).

There is a brief hiatus in the region's archaeological record, and then another Eskimoan culture made its appearance in the region. Identified as the Norton tradition, this culture's toolkit included chipped stone points, sideblades, labrets, pottery, stone lamps, notched stones that were used as fishing net weights, and some ground slate ulus and points.

There is ongoing debate concerning the Norton tradition's origins. Anderson, who worked predominately along the coast and rivers emptying into the Chukchi Sea, sees uninterrupted cultural continuity between the Arctic Small Tool and Norton traditions (Giddings and Anderson 1986:313-314). Other researchers have placed a greater emphasis on similarities to cultures on the Asian side of the Bering Strait (Ackerman 1982). Others see more diverse origins for Norton, with Asian, Arctic Small Tool, and lower Alaska Peninsula cultural elements combining in varying degrees to create the regional manifestation of the Norton tradition found in southwest Alaska (Dumond 2000a:17, 2000b:96-100).

Norton sites have been found along much of Alaska's western and northern coastal areas, suggesting a previously unseen diversity of subsistence and settlement patterns. To the north, there are numerous sites on the coast suggesting that these people were increasingly turning to maritime resources. On the Alaska Peninsula and in the Bristol Bay region, larger Norton sites are predominately found in riverine settings suggesting an orientation toward salmon and

terrestrial resources (Dumond 1987:112-113).

Some of the earliest direct evidence for a human occupation of the Yukon-Kuskokwim Delta belongs to the Norton tradition. Some researchers have speculated that earlier cultures may not have been sufficiently technologically adapted to efficiently utilize the Delta's diverse riverine environments, and speculate that Norton developed certain key technologies, such as effective nets necessary for the efficient harvesting of the region's abundant fish and waterfowl resources that allowed for Norton's population and a territorial expansion (Shaw 1983:360-364). With this proposed scenario, at least one researcher has proposed that the Norton people may have spread into what was a virtually unpopulated region (Shaw 1982:68-72, 1983:358-360, 2001:personal communication).

It is possible that the region was utilized by other peoples prior to Norton, but if other population were present in the delta they were probably small. This, combined with the tendency for the rivers to meander, may have severely restricted any earlier people's archaeological visibility. If earlier cultures were present, Norton may have displaced or absorbed these incipient populations, but as yet, no conclusive evidence for any earlier populations has been found in the Delta.

Generally, the time span for Norton in most parts of Alaska is thought to range between 2,500 and 1,500 years ago, although in the Yukon-Kuskokwim Delta it was thought to have persisted somewhat later, ranging between 1,600 and 1,000-years before present (Shaw 1982:72). Following Norton, there appears to be a relatively smooth transition into the later Thule tradition. This was part of a larger pan-Eskimo transition, during which there was the diffusion of modern Eskimo cultural traits to every corner of the Eskimo world from southern Alaska to Greenland. It was a regional variation of this culture, the Yupik speaking Kuskowagamiut, who occupied that part of the Yukon-Kuskokwim Delta at the time of Euro-American contact in the last quarter of the 18th century (Nelson 1983:26; VanStone 1984:224).

Although direct contact with the Euro-Americans was limited during this time, the impact on Eskimo society was not. In 1778, when Captain Cook explored the mouth the Kuskokwim in 1778, he noted that the inhabitants already possessed some trade goods (Bancroft 1886:209-210). The first Russian contact with the region's inhabitants may have occurred in the early 1790s when Vasilij Ivanov, a trader working for the Lebedev-Lashtochkin Company, crossed overland from Iliamna Lake into the Kuskokwim drainage. Evidence of his expedition is scanty, but some scholars believe that he may have portaged from the Kuskokwim to the Yukon and then descended the river to its mouth (VanStone 1979:44-45). In 1818, Petr Korsakovskiy, a trader for the Russian-American company, traveled from Iliamna Lake to the Kuskokwim River, but

did not cross into the Yukon drainage (VanStone 1979:47). These expeditions gave the Russian a glimpse of the potential wealth of furs that the region contained, and in 1818, the Russian-American Company established the trading post, Alexandrovski Redoubt, near the mouth of the Nushagak River (VanStone 1967:49). In 1830, the Russian-American Company trader Ivan Vasilev ascended the Nushagak River, crossed over to the Kuskokwim River, which he followed to the coast (VanStone 1979:48). He was followed by Fedor Kolmakov in 1832, who established Kolmakovskiy Redoubt at the confluence of the Kuskokwim and Holitna Rivers, but relocated the post the following year so it would be closer to the coast (VanStone 1967:10-11, 1979:48). In 1833, on Kolmakov's recommendation, the Russian-American Company established Mikhailovskiy Redoubt, 60 miles north of the mouth of the Yukon near the present site of St. Michael, in order to more efficiently trade with the natives on the Yukon. In 1833-1834, an expedition under the leadership of Andrey Glazunov traveled overland Mikhailovskiy Redoubt to the Yukon River near Anvik, from where he followed the river for a distance downstream before crossing over to the Kuskokwim and traveling to its mouth (VanStone 1979:51-55). In 1835, he led another expedition down the Yukon River, and because of the particularly friendly reception that he received in Ikogmuit, established a trading post in what was to become Russian Mission (VanStone 1979:56, 1984:235).

Between 1842 and 1844, the region was extensively explored by Russian Navy Lieutenant Lavrentiy Zagoskin. Starting from Mikhailovskiy Redoubt in late 1842, he ascended the Unalakleet River, from which he crossed over to the Yukon at Nulato, and proceeded upstream to the Koyukuk River, before returning to Nulato. The following June, he again ascended the Yukon as far as the Nowitna River, and then proceeded downriver as far as Ikogmuit, where he spent the winter (VanStone 1979:75). In the spring of 1844, he explored the lower Innoko River and crossed over to the Kuskokwim River, which he ascended as far as the mouth of the Takotna River (VanStone 1979:75). From there, he then descended the Yukon River to its mouth.

With the Russian presence and trade came smallpox. It entered Alaska from the south in 1836. Part of a larger epidemic affecting most of the northwest coast, it struck Sitka in December and spread throughout much of southeast Alaska that winter. Having decimated native populations throughout Southcentral Alaska during 1837, the disease struck Alexandrovski Redoubt in March 1838 (Arndt 1985:4). It raged at the trading post for three months, and then spread up the Nushagak River. Smallpox ravaged the region throughout the year, in some places killed between 40 and 60 percent of the population (Arndt 1985:8, 10; Fortuine 1992:235; Petroff 1884:40; VanStone 1967:99-100, 1979:58-61). The disease ran its

course by early winter, and disappeared completely by 1839 (Dumond 1996:122).

Widespread inoculations undoubtedly contributed to the disease's eventual subsidence (Tikhmenev 1978:199), but using the active smallpox virus taken from the lymph of smallpox victims to make some of these vaccines may have led to the actual spread of the disease in the region (Dumond 1996:127). The Russian connection to smallpox was not lost to the Eskimo peoples of the region, with some natives believing that the disease resulted from a poison placed in the communion cups by the Russian Orthodox priests (Dumond 1996; Kan 1988:51; VanStone 1967:100). In 1839, the perceived Russian involvement in the epidemic led to the destruction of the trading post at Ikogmuit, likely by Eskimos from the Bethel area, and resulted in the revenge killing of at least one Russian trader (Fortuine 1992:235; Oswalt 1980a:20; VanStone 1979:58). The suspected Russian involvement in the epidemic likely caused many Natives to resist the Russian efforts to convert them to Christianity, although Zagoskin suggested that the epidemic and its eventual disappearance ultimately may have been responsible for conversion of many of the survivors (Zagoskin 1967:100).

Western disease would become a constant factor to the native population of southwest Alaska. In 1900, the Yukon-Kuskokwim Delta, along with most of western Alaska was struck by the combined epidemics of measles and influenza. Influenza, likely brought in by gold seekers and seal hunters coming from the southeast, entered the region in June and July of 1900 (Wolfe 1982:97-98). Measles, probably originating from Siberia, struck the region in late August and early September (VanStone 1971:34, 119, Wolfe 1982:96). The effects of these co-occurring epidemics were especially heavy among the Eskimos living in the region, who experienced somewhere between a 15 and 25 percent mortality rate (Wolfe 1982:91, 99, 115). Some communities may have lost as much as half of their populations, with many villages, and some entire areas, being abandoned (Fortuine 1992:225; VanStone 1971:34, 119).

It is estimated that perhaps a quarter of all southwestern Alaskan Eskimos died during this epidemic (Wolfe 1982:91, 115). Deaths were reported in nearly every village, with some parts of the lower Kuskokwim perhaps losing as much as half of their population (Fienup-Riordan 1988:442; Fortuine 1992:224; Oswalt 1980b:49). A Moravian missionary and physician, Joseph Romig, traveled down river trying to help the sick. He described the scene he encountered.

“The misery of the people seemed to be complete. They were cold, they were hungry and thirsty and weak, with no one to wait on them. The dead often remained for days in the same tent with the living, and in many cases were never removed. Those that recovered left the tent to fall on the dead as the only covering for the remains of relatives and

friends. Children cried for food, and no one was able to give it to them. At one place some passing strangers heard the crying of children, and upon examination found only some children left with both parents dead in the tent. Thus the situation continues from the source to the mouth of the river (Wolfe 1982:110).”

The epidemic was fast moving and struck during the middle of the summer subsistence round. Again there were instances of blame and hostility directed toward the whites, who were relatively unaffected by the epidemic. Many villages were abandoned, and there was a general breakdown of the Kuskowagamiut social order. In the 1920s through the 1960s, tuberculosis became endemic in the region, with it being estimated that around the 1940s between 40 and 60 percent of residents of some villages were infected with the disease (Oswalt 1980b:50).

The middle decades of the 19th century saw only a limited increase of Russian cultural influence in the Yukon-Kuskokwim Delta. The Russian-Orthodox Church had made some inroads into the Yukon delta, but these were primarily concentrated around its mission in Ikogmuit (Kan 1988:517). After the American purchase of Alaska in 1867, the Episcopalians and the Catholics also established missions at various communities along the Yukon River, but did not make significant inroads into the Kuskokwim region until somewhat later. In the 1880s, under the leadership of Sheldon Jackson, missionary work in Alaska was divided up between various Protestant denominations, with the Moravians being entrusted with the Kuskokwim area (Oswalt 1966:112, Mitchell 1997:92). They established a mission at the present site of Bethel in 1884, and eventually established a church in Napakiak in 1930 (Oswalt 1980b:61, 1990:88).

Cultural change also resulted from economic factors brought about by the increasing participation in the fur trade, although most of the trade goods continued to flow through traditional channels. With the American purchase, commercial interests in the fur trade in the region transferred from the Russian-American Company to the Hutchinson, Kohl & Company, which was bought the next year by the Alaska Commercial Company. With these changes came increasing direct contact with the white trader's who operated these trading posts.

Through the efforts of Sheldon Jackson, domestic reindeer were introduced into Alaska in the last decade of the 19th century to provide the Eskimo economic stability. The Moravians mission in Bethel received reindeer in early 1901. Shortly thereafter, this portion of the

Kuskokwim delta had become a major center of herding activity in the area. Jackson had originally brought in Siberian herdsmen to teach the Eskimos how to herd. When the Siberians did not work out, Norwegian Lapps were imported to manage the herds. Soon the Lapps were no longer teaching but actively competing with their Eskimo counterparts. In 1937, the U.S. government prohibited non-natives from owning reindeer (Laroux 1994:54). The reindeer experiment was short lived in the Kuskokwim, lasting only one generation. Originally, the missionaries had some success persuading their new converts to take up this time consuming occupation at the expense of trapping and the harvesting local subsistence resources, but the Kuskowagamiut gradually lost interest. Within a few years the domestic Kuskokwim reindeer herds were almost nonexistent.

The lure of gold also brought more whites to the Kuskokwim River in the first decades of the 20th century. It was discovered on a tributary of the Tuluksak River in 1907, and along the George River and the Crooked Creek drainage in 1909. Small amounts of gold were found on the upper Kwethluk River in 1913, but these finds never proved to be profitable (Oswalt 1980b:50).

The village of Napakiak was first reported by Edward Nelson in 1878, but at that time it was located 6-mile to the west of its present location near the mouth of the Johnson River (Orth 1971:673; Oswalt 1980b:61). By 1888, Moravian missionaries mention it being near its current location, suggesting that the village had moved in the previous decade (ADCED 2012). In 1930, the Moravians built a church in the village, and in 1939 the Bureau of Indian Affairs established a School (Oswalt 1980b:61). A store was established in 1946, and a post office in 1951 (Orth 1971:Oswalt 1980b:61). The village was incorporated as a 2nd Class City in 1970. It currently has 359 residents (ADCED 2012).

Known Historical Resources and Previous Archaeological Investigations

A review of the Alaska Heritage Resource Survey (AHRs), maintained by the State Office of History and Archaeology, revealed that there is one previously known historical resource in the immediate vicinity of the project area, and this is the village of Napakiak itself.

- **BTH-006 - Napakiak** - The village was established about 1890 when residents moved from its former site (XBI-007). A Moravian church was dedicated in 1930; the BIA school opened in 1939; a post office opened in 1951.

Napakiak has been the subject of very few previous archaeological investigations. As part of Bureau of Indian Affairs Transportation plan, a review of the literature pertaining to the history of the community was conducted in 1997, but no follow-up field work was apparently conducted (BIA 1997). In 2006, the property containing the National Guard Armory, located in the northeastern portion of the village, was inspected (Claris 2006). No archaeological or historic remains were found.

The Archaeological Survey

This undertaking's area of potential effect consists of the existing and prospective right-of-ways within the village where the roads are to be ungraded. This entire area of potential effect was archaeologically surveyed by Mark Pipkin of Walking Dog Archaeology on September 20, 2010. This was a pedestrian survey, with limited judgmental subsurface testing that was to be conducted only at selected locations along the right-of-ways where it seemed likely that archaeological or historic remains might be buried. During the course of the survey, no archaeological or historical indicators were observed, so testing was limited to two small shovel-tests whose locations were chosen at random to observe the soil's natural stratigraphy.

The terrain within the village is uniformly flat, with an average elevation of approximately 6-feet above the Kuskokwim River and Johnson Slough. Although the land around the village is relatively well drained, it is subject to periodic seasonal flooding. The river bank fronting the village, and especially that portion of the village closest to the Kuskokwim River is actively eroding. Comparisons of aerial photographs taken in the early 1990s to those taken in the last five years indicate that the bank has eroded as much as 450-feet in the northeastern portion of the village in the last two and a half decades. This has resulted in the relocation of many of the structures closest to the river to safer locations.

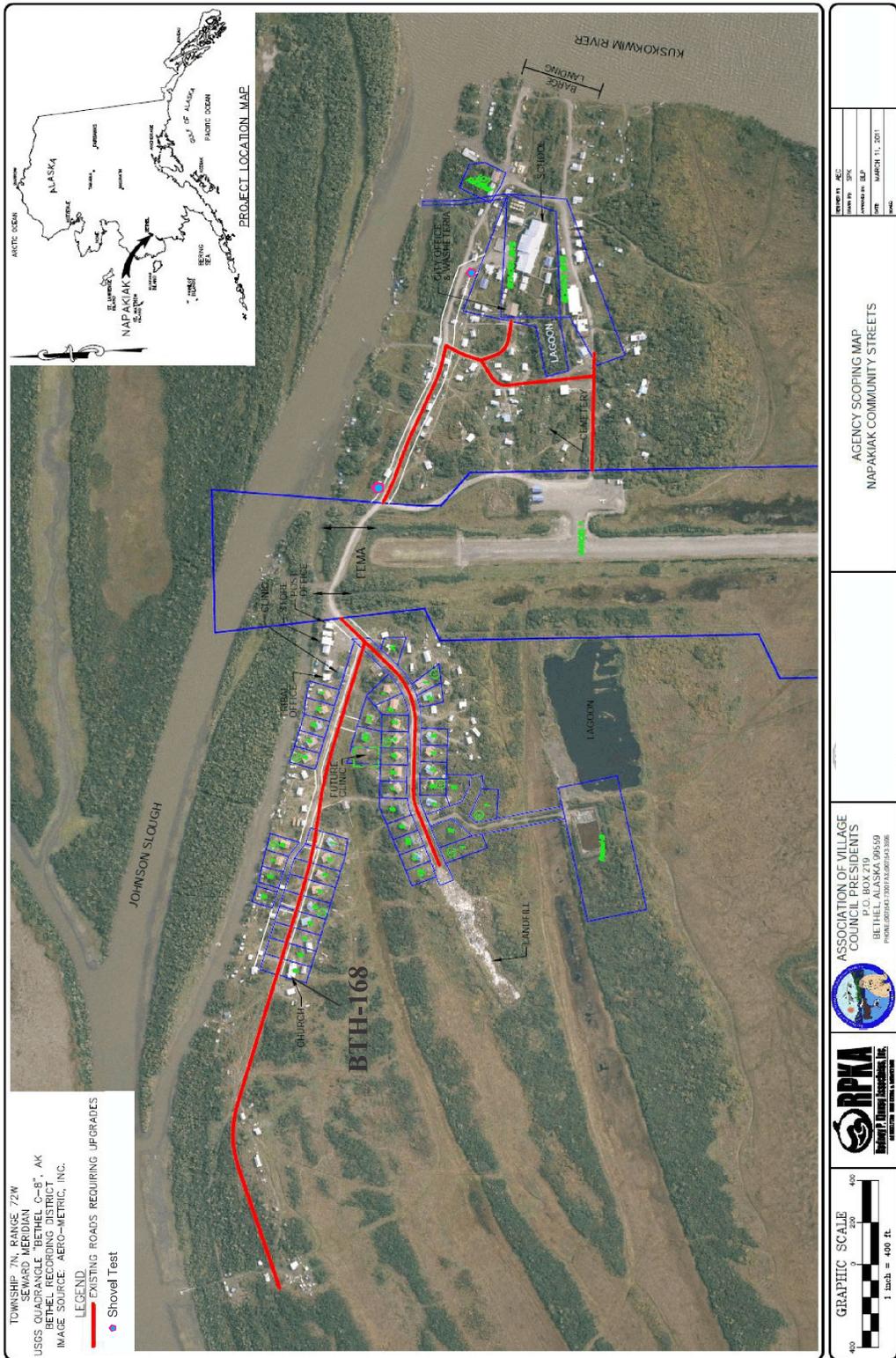


Figure 3. Napakiak project area - detail.



Figure 4. Typical terrain.

The vegetation in the village is dominated by various grasses, sedges, and fireweed, with scattered stands of dwarf willow, and some alders. At the time of the archaeological survey, ground visibility was good to excellent.



Figure 5. Moravian Church (BTH-168).

The majority of structures in the village are wood framed, single family residences, that are built up on stilts. They appear to be of similar design, and none appeared to be more than 30 to 40-years old. The oldest structures in the village appear the National Guard Armory that was built in the 1960s (Claris 2006), and the Moravian Church (BTH-168), which was built in 1947. It was reported that the latter structure has been moved at least once (Nelson, W. 2010:personal communication). Both the armory and the church is outside of the area of potential effect, and will not be affected by the project. None of the structures in the village appear to be eligible for inclusion on the National Register of Historic Places. There is a single cemetery located near the center of the village. The graves are well marked, and the cemetery is enclosed by a chain-link fence. Local residents knew of no isolated graves in the community.

As noted previously, two shovel tests were excavated whose primary purpose was to observe the natural stratigraphy of the soil. The first of these was located in the right-of-way northwest of the village school. This revealed 0.05-meters of an upper root mat, overlaying 0.15-meters of dark brown silt, atop of 0.20-meters of dark grey-yellow-brown silt. The second test was excavated in the right-of-way northeast of the runway. The stratigraphy was identical to the first test. No cultural indicators were observed in either test. Similarly, no archaeological or historical remains were observed in any of the right-of-ways of the roads slated to be improved, or elsewhere in the village.

Conclusions and Recommendations

No historic or archaeological remains were observed in any of the right-of-ways of the roads that are to be improved, or elsewhere in the village. None of the various structures within the village will be impacted by this undertaking, nor are any architecturally unique, or associated with any person or event that was significant to the region's history. These factors taken into consideration, it is recommended that a finding of No Historic Properties be adopted for this undertaking.

References

Ackerman, Robert E.

- 1964 *Prehistory of the Kuskokwim-Bristol Bay Region Southwestern Alaska 1964*. Laboratory of Anthropology Report of Investigations No. 26. Washington State University. Pullman.
- 1982 The Neolithic-Bronze Age Cultures of Asia and the Norton Phase of Alaskan Prehistory. *Arctic Anthropology*, vol. 19, no. 2, pp. 11-38. University of Wisconsin Press. Madison.
- 1996a Nukluk Mountain. In *American Beginnings. The Prehistory and Palaeoecology of Beringia*, pp. 461-464. Frederick Hadleigh West, ed. The University of Chicago Press. Chicago.
- 1996b Ilnuk Site. In *American Beginnings. The Prehistory and Palaeoecology of Beringia*, pp. 464-470. Frederick Hadleigh West, ed. The University of Chicago Press. Chicago.
- 1996c Cave 1, Lime Hills. In *American Beginnings. The Prehistory and Palaeoecology of Beringia*, pp. 470-477. Frederick Hadleigh West, ed. The University of Chicago Press. Chicago.
- 1996d Spein Mountain. In *American Beginnings. The Prehistory and Palaeoecology of Beringia*, pp. 456-461. Frederick Hadleigh West, ed. The University of Chicago Press. Chicago.
- 2001 Spein Mountain: A Mesa Complex Site in Southwestern Alaska. *Arctic Anthropology*, vol. 38, no. 2, pp. 81-97. University of Wisconsin Press. Madison.
- 2004 The Northern Archaic Tradition in Southwestern Alaska. *Arctic Anthropology*, vol. 41, no. 2, pp. 153-162. University of Wisconsin Press. Madison.
- 2008 Security Cove and the Northern Archaic Tradition Revisited. *Arctic Anthropology*, vol. 45, no. 2, pp. 146-168. University of Wisconsin Press. Madison.

ADCED

- 2012 Alaska Department of Community and Economic Development - Alaska Community Database - Napakiak (April 2, 2012) [Online]. Available: <http://www.dced.state.ak.us/dca/commdb/CIS.cfm>.

Anderson, Douglas D.

- 1984 Prehistory of North Alaska. *Handbook of North American Indian - Arctic*, vol. 5, pp. 80-93. David Damas, ed. Smithsonian Institution. Washington, D.C.

Arndt, Katherine L.

- 1985 The Russian-American Company and the Smallpox Epidemic of 1835-1840. Paper presented at the 12th annual meeting of the Alaska Anthropological Association. Anchorage.

Bancroft, Hubert H.

- 1886 *The History of Alaska 1730-1885. The Works of Hubert H. Bancroft 33.* A. L. Bancroft. San Francisco.

BIA

- 1997 Research - Roads Archaeology (Winter 1997) Napakiak. On file at the Bureau of Indian Affairs - Regional Archaeology. Anchorage.

Claris

- 2006 Alaska Army National Guard Final Cultural Resources Survey Napakiak, Alaska FSRC. Report prepared for the Alaska Army National Guard. On file at the State Office of History and Archaeology. Anchorage.

DePew, Alan D. and K. Gregory Biddle

- 2006 Preliminary Excavations and Artifact Collection Data from 49DIL-00086 and 49DIL-00153 (Dillingham Quadrangle). Draft report cited by permission of the authors.

Dumond, Don E.

- 1969 Toward the Prehistory of the Na-Dene, with a General Comment on Population Movement among Nomadic Hunters. *American Anthropologist*, vol. 71. Washington, D.C.
- 1981 *Archaeology of the Alaska Peninsula: The Naknek Region, 1960-1975.* University of Oregon Anthropological Papers No. 21. Eugene.
- 1984 Prehistory of the Bering Sea Region. *Handbook of North American Indian - Arctic*, vol. 5, pp 94-105. David Damas, ed. Smithsonian Institution. Washington, D.C.
- 1987 *The Eskimos and Aleuts.* Thames and Hudson Ltd. London.
- 1996 Poison in the Cup: The South Alaskan Smallpox Epidemic of 1835. *University of Oregon Anthropological Papers 52*, pp. 117-129. Eugene.
- 2000a The Norton Tradition. *Arctic Anthropology*, vol. 27, no. 2, pp. 1-22. University of Wisconsin Press. Madison.
- 2000b A Southern for Norton Culture? *Anthropological Papers of the University of Alaska*, vol. 25, no. 1, pp. 87-102. Fairbanks.
- 2001 The Archaeology of Eastern Beringia: Some Contrasts and Connections in East Beringia. *Arctic Anthropology*, vol. 38, no. 2, pp. 196-205. University of Wisconsin Press. Madison.
- 2005 The Arctic Small Tool Tradition in Southern Alaska. *Alaska Journal of Anthropology*, vol. 3, no. 2, pp. 67-78. Alaska Anthropological Association. Anchorage.

- Dumond, Don E., Winfield Henn and Robert Stuckenrath
 1976 *Archaeology and Prehistory of the Alaska Peninsula. Anthropological Papers of the University of Alaska*, 18, no. 1, pp. 17-29. Fairbanks.
- Fienup-Riordan, Ann
 1988 *The Yup'ik Eskimos, as described in the Travel Journals and Ethnographic Accounts of John and Edith Kilbuck who served with the Alaska mission of the Moravian Church 1886-1900.* Alaska History No. 31. Limestone Press. Kingston.
- Fortuine, Robert
 1992 *Chills and Fever. Health and Disease in the Early History of Alaska.* University of Alaska Press. Fairbanks.
- Gallison, James D.
 1983 *An Archaeological Investigation and Technological Analysis of an Early Holocene Core and Blade Assemblage (GDN 093) Kagati Lake, Southwest Alaska.* Unpublished Master Thesis. Washington State University. Pullman.
- Giddings, J. Louis and Douglas D. Anderson
 1986 *Beach Ridge Archaeology of Cape Krusenstern - Eskimo and Pre-Eskimo around Kotzebue Sound, Alaska.* Publications in Archaeology 20. National Park Service, U.S. Department of Interior. Washington, D.C.
- Henn, Winfield
 1978 *Archaeology of the Alaska Peninsula: The Ugashik Drainage, 1973-1975.* University of Oregon Anthropological Papers No. 14. Eugene.
- Holmes, Charles E, and J. David McMahan
 1996 *1994 Archaeological Investigations at the Igiugig Airport (ILI-002) (Project No. 59192).* Office of History and Archaeology Report Number 57. Anchorage.
- Kan, Sergi
 1988 *The Russian Orthodox Church In Alaska. Handbook of North American Indians - History of Indian-White Relations*, vol. 4, pp. 505-521. Wilcomb E. Washburn ed. Smithsonian Institution. Washington, D.C.
- Kunz, Michael L. and Richard E. Reanier
 1995 *The Mesa Site: A Paleoindian hunting Lookout in Arctic Alaska. Arctic Anthropology*, vol. 32, no. 1, pp. 5-30. University of Wisconsin Press. Madison.

Laroux, Sis

- 1994 *Our Side of the River. Growing Up and Living on Our Side of the River in Old Akiak of the Kuskokwim.* Publication Consultants. Palmer.

Mitchell, Donald Craig

- 1997 *Sold American. The Story of Alaska Natives and Their Land.* University Press of New England. Hanover.

Nelson, Edward W.

- 1983 *The Eskimos About the Bering Strait.* (Originally published 1899). Smithsonian Institution Press. Washington, D.C.

Nelson, Walter

- 2010 Personal communication to M. Pipkin - September 20, 2010.

Orth, Donald J.

- 1971 *Dictionary of Alaska Place Names.* Geological Survey Professional Paper 567. Reprinted from 1967 edition with minor revisions. United States Government Printing Office. Washington, D.C.

Oswalt, Wendell H.

- 1966 *The Kuskowagamiut: Riverine Fishermen. This Land Was Theirs. A Study of the North American Indian.* John Wiley and Sons, Inc. New York.
- 1980a *Kolmakovskiy Redoubt.* Monumenta Archaeologica 8. The Institute of Archaeology. The University of California, Los Angeles.
- 1980b *Historic Settlements Along the Kuskokwim River, Alaska.* Alaska State library historical Monographs No. 7. Alaska Division of State libraries and Monuments. Juneau.
- 1990 *Bashful No Longer. An Alaskan Eskimo Ethnohistory, 1778-1988.* University of Oklahoma Press. Norman.

Petroff, Ivan

- 1884 *Population Industries, and Resources of Alaska. Tenth Census of the United States, 1880,* vol. 8. Government Printing Office. Washington, D.C.

Reanier, Richard E.

- 1995 *The Antiquity of Paleoindian Materials in Northern Alaska. Arctic Anthropology,* vol. 32, no. 1, pp. 31-50. University of Wisconsin Press. Madison.

Shaw, Robert D.

- 1982 *The Expansion and Survival of the Norton Tradition on the Yukon-Kuskokwim Delta. Arctic Anthropology,* vol. 19, no. 2, pp. 59-74. University of Wisconsin Press. Madison.

Shaw, Robert D. (continued)

- 1983 *The Archaeology of the Manokinak Site: A Study of the Cultural Transition Between Late Norton Tradition and Historic Eskimo*. Ph.D. dissertation - Department of Anthropology, Washington State University. Pullman.
- 2001 Personal communication. Telephone conversation with Mark Pipkin in October 2001.

Tikhmenev, Petr Aleksandrovich

- 1978 *A History of the Russian-American Company*. Translated and edited by Richard A. Pierce and Alton S. Donnelly. University of Washington Press. Seattle.

VanStone, James W.

- 1967 *Eskimos of the Nushagak River - An Ethnographic History*. University of Washington Press. Seattle.
- 1971 *Historic Settlement Patterns in the Nushagak River Region, Alaska*. *Fieldiana Anthropology*, vol. 61, pp. 1-149. Field Museum of Natural History. Chicago.
- 1984 *Mainland Southwest Alaska Eskimos*. In *Handbook of North American Indians - Arctic*. Vol 5, pp. 224-242. David Damas ed. Smithsonian Institution. Washington, D.C.
- 1979 *Ingalik Contact Ecology: An Ethnohistory of the Lower Middle Yukon, 1790-1935*. *Fieldiana Anthropology*, vol. 71. Field Museum of Natural History. Chicago.

Wolfe, Robert J.

- 1982 *Alaska's Great Sickness, 1900: An Epidemic of Measles and Influenza in Virgin Soil Population*. *Proceedings of the American Philosophical Society*, vol. 126, no. 2, pp. 91-121. Philadelphia.

Workman, William B.

- 1977 *The Prehistory of the Southern Tutchone Area*. In, *Prehistory of the North American Subarctic - The Athapaskan Question*. Proceedings of the Ninth Annual Conference - CHACMOOL. Archaeological Association of the University of Calgary. Calgary.
- 1978 *Prehistory of the Aishihik-Kluna Area, Southwest Yukon Territory*. National Museum of Man Mercury Series. Archaeological Survey of Canada Paper No. 74. Ottawa.

Zagoskin, Lavrentiy A.

- 1967 *Lieutenant Zagoskin's Travels in Russian America, 1842-1844. The First Ethnographic and Geographic Investigations in the Yukon and Kuskokwim Valleys of Alaska*. Arctic Institute of North America Anthropology of the north: Translations from Russian Sources No. 7. Henry N. Michael, ed. University of Toronto Press. Toronto.

APPENDIX E: SECTION 106 DETERMINATION

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS
ALASKA REGION



Branch of Regional Archeology
3601 C Street, Suite 1100
Anchorage, Alaska 99503
(907) 271-4003

TO: ASSOCIATION OF VILLAGE COUNCIL PRESIDENTS
CLARENCE DANIL, TRANSPORTATION DIRECTOR
PO BOX 219
BETHEL, ALASKA 99559-0219

UNDERTAKING: Napakiak Community Street Upgrades Project, Napakiak, Alaska

FINDINGS OF SECTION 106 REVIEW: No Historic Properties Affected

RECOMMENDATION: Proceed with Napakiak Community Street Upgrades Project

AREA OF POTENTIAL EFFECT (APE): The proposed project is to resurface and improve approximately 7,500 feet of existing road within the village of Napakiak. The AVCP has contracted with R. P. Kinney and Associated, Inc. for the project's engineering design and administration. The road improvements will involve the laying of fresh fill topped with crush aggregate over an existing dirt and gravel road surface. Therefore, road improvements will not change the character of the village roads. More specific details of road rehabilitation are described in the archeological section 106 report prepared by Walking Dog Archaeology.

IDENTIFICATION EFFORTS: Review of records and of previous archeological surveys in the area. Also, an archeological inventory was conducted by Mr. Mark Pipkin of Walking Dog Archaeology. Mr. Pipkin's archeological survey report was submitted to the Alaska State Historic Preservation for review and comment.

AHRS SITES: No historic properties were identified within the APE.

CONSULTED PARTIES: Native Village of Napakiak
Alaska State Historic Preservation Office (SHPO)
Bureau of Indian Affairs (BIA)

MANAGEMENT RECOMMENDATIONS: The BIA is issuing a finding of "No Historic Properties Affected" for the proposed **Napakiak Community Street Upgrades Project, Napakiak, Alaska**. These findings are based on the archeological review of the subject area by Mark Pipkin of Walking Dog Archaeology. The archeological investigation report (*Archaeological Survey of the Napakiak Community Street Upgrades Project Area*) was prepared by Mark Pipkin (2012) of Walking Dog Archaeology. In compliance with Section 106 of the National Historic Preservation Act (16 USC 470f) of 1966 and 36 CFR §800, the Bureau of Indian Affairs, Alaska Regional Archaeology, is recommending the Napakiak Community Street Upgrades Project proceed. The State Historic Preservation Officer's concurrence stamp for "No Historic Properties Affected" is on file.

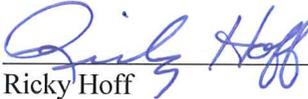
There were no sites identified within the APE of the project and no archeological monitoring will be required. These findings apply only to the current project. Any additional work outside of the current project's footprint may require additional Section 106 Review considerations. In accordance with 36 CFR §800.4 any changes to the project design will require further Section 106 Review.

The construction contract will include the following language:

“Native Village of Napakiak, the TRIBE, will comply with the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470), and the Native American Graves Protection and Repatriation Act of 1990 (25 U. S. C. 3001-3013), the Archaeological Resources Protection Act of 1979 (16 U.S.C. 47-aa-470II), and all implementing regulations.”

“If any previously unknown archeological or historic remains are discovered during the life of this undertaking, or in the course of associated activities on this property, the TRIBE shall protect them from disturbance pending further recommendations from the BIA Regional Archeologist (36 CFR §800.13[b][3]).”

“If any previously unknown human remains or associated cultural items are discovered during the life of this undertaking, or in the course of associated activities, the TRIBE shall protect them from disturbance pending further recommendations from the Regional Archeologist in consultation with the Alaska State Historic Preservation Officer and the Native Village of Napakiak. Any person who knows of the discovery of human remains or associated cultural items must provide notification in writing to the BIA Regional Archeologist (43 CFR §10.4).”


Ricky Hoff
Regional Archeologist

May 7, 2012
Date

cc: Brian Pederson, PE, Rodney P. Kinney Associates, Inc.
Julie Stoneking, CE, Transportation, Bureau of Indian Affairs, Alaska Region

APPENDIX F: PHASE I ENVIRONMENTAL SITE ASSESSMENT

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Napakiak Community Streets Project Phase I Environmental Site Assessment

January, 2012



Prepared for:

Rodney P. Kinney Associates
16515 Centerfield Drive, Suite 101
Eagle River, AK 99577



Prepared by:

Kai Environmental Consulting Services
1019 Edwin Place
Juneau, AK 99801



**PHASE I ENVIRONMENTAL SITE ASSESSMENT
NAPAKIAK COMMUNITY STREETS PROJECT
NAPAKIAK, ALASKA**

Prepared for:

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16515 Centerfield Drive, Suite 101
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On behalf of the Sponsor:

Association of Village Council Presidents
101A Main Street
Bethel, AK 99559

and

Native Village of Napakiak
PO Box 34069
Napakiak, AK 99634

Prepared by:

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January 2012

TABLE OF CONTENTS

1.0 INTRODUCTION..... 1

1.1 Project Description..... 1

1.2 Purpose..... 1

1.3 Scope of Services..... 1

1.4 Significant Assumptions, Limitations and Exceptions..... 2

2.0 SITE DESCRIPTION..... 3

2.1 Location and Legal Description 3

2.2 Current Use of Property 3

2.3 Structures and Improvements..... 4

2.4 Current Uses of Adjacent Property 4

2.5 Historical Use of Property 4

3.0 PHYSICAL SETTING 4

3.1 Topography/ Geology/Soils..... 5

3.2 Hydrology/Floodplains..... 5

4.0 USER-PROVIDED INFORMATION 5

4.1 Title Records..... 5

4.2 Environmental Liens..... 6

4.3 Specialized Knowledge..... 6

4.4 Property Owner..... 6

4.5 Prior Environmental Reports 6

4.6 Other..... 6

5.0 RECORDS REVIEW 6

5.1 Standard Environmental Records 6

6.0 SITE RECONNAISSANCE..... 8

6.1 General Site Conditions 8

6.2 Solid Waste Disposal 9

6.3 Wastewater Treatment/Disposal/Sewage Discharge..... 11

6.4 Drinking Water 12

6.5 Surface Water Discharge..... 13

6.6	Electrical/Communication Utilities	13
6.7	Staging and Material Sites.....	14
6.8	Hazardous Materials Storage, Use and Handling.....	14
6.9	Spill and Stained Areas.....	14
6.10	Above Ground Storage Tanks (ASTs).....	14
6.11	Underground Storage Tanks (USTs).....	19
6.12	Other possible contaminants	19
7.0	INTERVIEWS.....	19
7.1	Interview(s) with Owners(s)	19
7.2	Interviews with Local Government Officials.....	20
7.3	Interviews with Others.....	20
8.0	FINDINGS AND CONSIDERATIONS.....	20
8.1	On-Site Environmental Concerns.....	20
8.2	Off-Site Environmental Concerns	21
9.0	CONCLUSIONS AND RECOMMENDATIONS.....	21
10.0	REFERENCES.....	23

APPENDICES

Appendix A: Contaminated Sites

Appendix B: Spill Records

Appendix C: Interviews

LIST OF ACRONYMS

ADCCED	Alaska Department of Commerce, Community and Economic Development
ADEC	Alaska Department of Environmental Conservation
ADNR	Alaska Department of Natural Resources
ADOT&PF	Alaska Department of Transportation & Public Facilities
ANTHC	Alaska Native Tribal Health Consortium
ASTs	Above Ground Storage Tanks
ASTM	American Society of Testing and Materials
AVCP	Association of Village Council Presidents
CSD	[ADEC] Contaminated Sites Database
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
DoD FUDS	Department of Defense Formerly Used Defense Sites
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
GPS	Global Positioning System
IGAP	Indian General Assistance Program
KECS	Kai Environmental Consulting Service
LRTP	Long Range Transportation Plan
LKSD	Lower Kuskokwim School District
NAMSEI	Native American Management System for Environmental Impacts
NEPA	National Environmental Policy Act
PCB	Polychlorinated Biphenyl
PERP	[ADEC] Prevention and Emergency Response Program
ROW	Right-Of-Way
SPAR	[ADEC] Spill Prevention and Response
USACE	United States Army Corps of Engineers
USTs	Underground Storage Tanks

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1.0 INTRODUCTION

1.1 Project Description

Rodney P. Kinney Associates, Inc., on behalf of the Association of Village Council Presidents (AVCP) and the Native Village of Napakiak, has engaged Kai Environmental Consulting Services (KECS) to conduct a Phase I Environmental Site Assessment (ESA) for the Napakiak Community Streets Project.

The purpose of this project is to upgrade and improve established roads in the village of Napakiak. These roads include Route 5002, Lagoon Road, a road segment connecting Route 5002 and Lagoon Road (Unnamed Road 1), Route 5013, an unnamed road from the eastern main road southward to the City office and washeteria (Unnamed Road 2), a road segment from the city office going between the new lagoon and the cemetery (Unnamed Road 3), and a portion of Route 5021 connecting this segment to the airport staging area (Figure 1). A new road segment (Unnamed Road 4) has been added to the project that will service housing units recently relocated due to flooding events in the village. See Figure 1 for the entire project area.

The Proposed Actions are gravel resurfacing of existing roadways, including sub-base fill, stabilization, and addition of 6" surface course with dust palliative applied. The new gravel road segment will be constructed to a proposed width of 18 feet shoulder to shoulder with a width of 14 feet in restricted locations. The right-of-way (ROW) will be 40 feet to either side of the road centerline, thus an 80-foot corridor, and the total project length is approximately 1.4 miles. This includes 1.1 miles of existing road upgrades and 0.3 miles of new road construction. The total project area including ROW is approximately 1.38 acres. There is no local borrow site so this was not included in the site reconnaissance. Material source for the project will be barged in from Bethel.

1.2 Purpose

The purpose of this Phase I ESA is to assess the AVCP's and the Native Village of Napakiak's potential for environmental risks under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) for the development of the subject properties. This Phase I ESA also covers petroleum products, which are excluded under the definition of hazardous substances under CERCLA.

1.3 Scope of Services

This Phase I ESA was conducted according to the standards of the American Society of Testing and Materials (ASTM) Standard Practice Designation E1527-05, *Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process*. These methodologies are standard practice for conducting a Phase I ESA of a property for the

purpose of identifying recognized environmental conditions. A research and records review, a site reconnaissance trip, and user interviews were conducted for this assessment. Field investigation included the properties intended for development and adjacent properties.

This Phase I ESA report was prepared by KECS staff person Evelyn Fisher, with direct oversight from Cathy A. Needham. Ms. Fisher conducted the records review, conducted the interviews and drafted the report. Ms. Needham conducted the site reconnaissance, verified the records review, edited, revised and approved the report.

1.4 Significant Assumptions, Limitations and Exceptions

This Phase I ESA has been prepared in accordance with generally accepted environmental methodologies referred to in ASTM 1527-005. The following assumptions, limitations and exceptions apply to this investigation:

- This report is site-specific and applies only to the subject properties as defined in Section 4.4.
- This Phase I ESA is not an exhaustive assessment of the subject properties. While the environmental professional will review information that is useful, available and reasonably ascertainable within time and cost constraints, s/he is not obligated to identify, obtain or review every possible record connected with the property.
- Though records obtained and reviewed during this Phase I ESA are from sources believed to be reliable, information provided may potentially be inaccurate or incomplete. The environmental professional is not required to independently verify information provided unless s/he has actual knowledge that certain information is incorrect or it is obvious that certain information is incorrect based on other information obtained during the Phase I ESA.
- Information provided in interviews is assumed to be reliable and accurate. No responsibility is assumed for false information provided by individuals consulting during this investigation.
- This Phase I ESA cannot entirely eliminate uncertainty regarding potential for historic and current environmental conditions connected to the subject property. The intent of the Phase I ESA is to reduce the uncertainty about the subject property's conditions.
- This Phase I ESA was limited to a visual inspection of the property and exterior structures located near the property that could be safely accessed. The interior structures near or on the property were not investigated. The Phase I ESA standard

practice does not include any testing or sampling of materials (i.e. soils, water, building materials) for identification, levels or extent of potential contamination.

- The presence of hazardous substances and materials may affect the value of the property. The environmental professional is not qualified or required to provide a real estate appraisal or otherwise determine fair market value of the subject property and, therefore, no such opinions will be provided.
- This Phase I ESA is limited by the availability of information at the time of the assessment. It is possible that unreported disposal of waste or illegal activities impairing the environmental status of the property may have occurred which could not be identified.

The conclusions and recommendations regarding environmental conditions presented in this report are based on an authorized scope of work. Note that virtually no scope of work can identify all contaminants or all conditions above and below ground.

2.0 SITE DESCRIPTION

2.1 Location and Legal Description

Napakiak is located on the north bank of the Kuskokwim River, on an island between the Kuskokwim River and Johnson's Slough. It lies 15 miles southwest of Bethel and 407 miles west of Anchorage. Napakiak is in Section 18, Township 7 north, Range 72 west of the Seward Meridian in the Bethel Recording District. The Napakiak Community Streets Project will serve the 354 residents in the Napakiak area (ADCCED certified population in 2010). Figure 1 shows the project area within the community.

Napakiak is accessible by air and water. A state-owned 3,248 foot by 60 foot gravel runway and seaplane-landing area provide air transportation for passengers, mail, and cargo. Barges from Bethel deliver goods during the summer. There are no docking facilities. The river is an important means of transportation in summer. In winter, the river becomes an ice road to surrounding villages. A winter snow machine trail is marked to Bethel.

2.2 Current Use of Property

The subject property includes 1.1 miles of existing roads and 0.3 miles of new road and their respective rights-of-way, which provide transportation access to private residences, grocery and supply stores, public schools, government buildings and offices, the health clinic, the washeteria, churches, Army National Guard buildings, teacher-housing units, and the post office. The property also serves as a utility corridor and provides access to the utilities of Napakiak, including the Napakiak Ircinraq Power Company electric facilities, water treatment facilities, the old landfill, a fuel farm, and the city sewage lagoon.

2.3 Structures and Improvements

The local road system is the main transportation infrastructure in the village. According to the 2009 Napakiak Long Range Transportation Plan Update (RPKA 2009), the average width of the routes in town is between 15 and 22 feet, with corresponding ROWs varying from 50 feet to as narrow as 20 feet. Many existing roads in the community are in poor condition, often too narrow for two-way traffic and lacking proper drainage. Soft or subsiding road crowns and drainages and the lack of correctly maintained and installed culverts cause issues every year during break-up. The majority of Napakiak's roads are constructed with 2 to 3 inches of gravel and sand fill placed over native soil (RPKA 2009).

Boardroads provide access to several residential and community areas but are not part of the community's main transportation infrastructure. The boardroads are old and in poor condition, and are only used occasionally by pedestrians.

2.4 Current Uses of Adjacent Property

Adjacent property is owned by local residents, the City of Napakiak, the Napakiak Corporation, Native Village of Napakiak, and the Alaska Department of Transportation & Public Facilities (ADOT&PF). Adjacent property is used for resident housing, governmental buildings, utilities, an airstrip, and a barge landing zone.

2.5 Historical Use of Property

This region has historically been occupied by Yup'ik Eskimos and today, Napakiak is predominantly inhabited by Yup'ik people who maintain a fishing and subsistence lifestyle. The Native Village of Napakiak is a federally recognized tribe located in the community. Napakiak village was first reported in 1878 by E.W. Nelson. By 1910, the village had 166 residents and in 1939 a BIA school was built. In 1946 a Native-owned village cooperative store was opened, a post office was established in 1951, and a National Guard Armory was built in 1960. The city was incorporated in 1970. The first airstrip was completed in 1973, enabling year-round access.

The sandbar on which the city is built is severely eroding. In 2009 the community's main priority was to relocate all public facilities and homes to a bluff across Johnson's Slough. Recent flooding in the community forced the relocation of a section of Napakiak subdivision housing and the subsequent modification of the Napakiak Community Streets Project to service this area.

3.0 PHYSICAL SETTING

Napakiak's climate influenced by inland continental weather and by storms in the Bering Sea. Average annual rain is 16 inches, with 50 inches of snowfall. Summer high

temperatures average 59 to 62 °F, and winter highs average 11 to 19 °F. Extremes from 86 to -46 °F have been recorded. The Kuskokwim River is typically ice-free from June to October.

3.1 Topography/ Geology/Soils

Napakiak's topography is flat with only slight relief within the immediate vicinity. This lowland delta region is composed of deposits from modern floodplains, alluvial fans, and terraces. Lying 40 feet above sea level, the area is generally underlain by moderately thick to thin permafrost indicating the presences of predominantly fine-grained deposits. For continuous permafrost, maximum depths are typically about 600 feet. Locally, permafrost is absent around large water bodies.

The water table is near the surface with saturated and dilatant organic silt down to 10 feet. These saturated soils contain seasonal frost that extends from the surface to test depths of 5-10 feet.

Napakiak is located in seismic risk zone two and has had no recorded instances of earthquake damage. They can expect earthquakes up to moderate strength (Richter scale of 4.5 to 6.0). The earthquake zone will impact structural design of any bridges and bridge abutments constructed in the area, but will not impact design of the roads in and around Napakiak (RPKA 2009).

3.2 Hydrology/Floodplains

Napakiak is within the floodplain of the Kuskokwim River. Flooding frequency and severity is rated high as a result of overflow and ice jams. Flooding has caused riverbank erosion of 6 to 60 feet, which has majorly impacted the community and has already forced relocation of a section of residential housing. As noted above, the water table is near the surface. The US Army Corps of Engineers (USACE) lists the last major flood event in May of 1991 (USACE 2011).

4.0 USER-PROVIDED INFORMATION

4.1 Title Records

A formal review of the chain-of-title information for the project area and adjacent properties was not conducted for this assessment. Property ownership for the subject property was determined through user interviews and additional information was taken from the Alaska Department of Community and Economic Development (ADCCED) community profiles database (ACCED 2011). Property ownership is defined in Section 4.4.

4.2 Environmental Liens

A cursory search of records through the on-line Alaska Department of Natural Resources Records Office (ADNR 2011) did not produce environmental liens on any properties in Napakiak. No environmental liens or use limitations were discovered or reported during any interview conducted for this project. The ADCCED Division of Regional and Community Affairs Rural Utility Business Advisor Program publication “Lien Watch: A Review of Small Community Liens” (Jan-Feb 2010) reports no liens, environmental or otherwise for Napakiak. The “Lien Watch: September-October 2011 Update” likewise showed no liens for the community.

4.3 Specialized Knowledge

No specialized knowledge of other potential environmental concerns was reported by the property owners. No property-valuation reduction relating to environmental concerns was reported by the property owners.

4.4 Property Owner

The City of Napakiak owns all roads and their rights-of-way within the town site of Napakiak.

4.5 Prior Environmental Reports

There were no known prior Phase I ESAs conducted on the subject property.

4.6 Other

No other information was provided by the property owners or project managers.

5.0 RECORDS REVIEW

5.1 Standard Environmental Records

The following list of environmental databases represents the federal and state records that were reviewed during this Phase I ESA:

- Abandoned Mines Database (USGS Alaska Resource Data)
- Alaska Brownfields Program (ADEC)
- Alaska Community Profile (ADCCED)
- Contaminated Site Database (ADEC)
- Alaska Leaking Underground Storage Tank List (ADEC)
- National Pollution Discharge Elimination System (EPA)
- Alaska Spill Prevention and Response (SPAR-ADEC)

- Alaska Village Safe Water Program (ADEC)
- Alaska Community Action on Toxics (ACAT)
- Alaska Solid Waste Projects (ANTHC)
- Alaska Water and Sewer Projects (ANTHC)
- Department of Defense Formerly Used Defense Sites in Alaska (ADEC)
- Envirofacts (EPA)
- Comprehensive Environmental Response, Compensation & Liability Information System (EPA)
- National Priorities List (EPA)
- Native American Management System for Environmental Impacts (NAMSEI - DOD)

The records search revealed one record in the Alaska Department of Environmental Conservation Contaminated Site Database (CSD, ADEC). The only site listed in the CSD is a spill at the Federal Scout Armory, owned by the Army National Guard. A chronology report for this site can be found in Appendix A. This petroleum spill predates ADEC 1996 database. ADEC staff performed a site investigation in 1995 and a Remedial Investigation in 1998, noting the main area impacted was on the south side of the old armory building near the former Above Ground Storage Tank (AST; Rudis 2009). The site's final site characterization workplan was approved in May 2011. This spill is outside the project area.

There were a total of 12 petroleum-based spills reported in the ADEC Spill Prevention and Emergency Response Program (SPAR, PERP) database since 1995. The PERP database (effective since 1995) contains any spill that is reported, which is then tracked until the record is closed or elevated to the Contaminated Sites List. Most of the records do not contain exact street addresses or locations of the spills. The results of the spill search are summarized below in Table 1. A full record of the spills may be found in Appendix B.

Of the 12 spill sites documented, the three most recent spills are still considered open cases but all three are located outside the project area. Robert Carlson of the ADEC Bethel office was interviewed regarding the open spills (Appendix C). All three sites need further clean up and remediation before they can be considered for closure and the 2006 Corporation Tank Farm site faces the possibility of elevation to the contaminated sites list.

No other records or projects pertinent to Napakiak were found in the records search.

Table 1- Summary of petroleum spills from the PERP database for Napakiak, Alaska

Date of Spill	Location	Substance	Amount (gal)	Closure Date
25-Aug-95	Napakiak Tank Farm, Naparyalruar Corp.	Diesel	200	27-Aug-95
31-Oct-96	Napakiak School Daytank	Diesel	150	01-Dec-98
02-Sep-97	Napakiak Naparyalruar Corporation Tanks	Diesel	120	09-Sep-97
16-Jun-98	Johnson River Mystery Sheen	Diesel	10	29-Jun-98
15-Aug-98	Faukner Tug Overtuned	Diesel	1000	01-Apr-99
08-Apr-03	Naparyalruar Store Gasoline	Gasoline	20	09-Jan-04
20-Apr-05	Napakiak Calcium Hypochorite	Calcium Hypochlorite (Solid)	3	25-Feb-08
16-Jan-06	Napakiak Combined Tank Farm	Diesel	600	25-Apr-07
22-Feb-06	William Miller Memorial School Heating	Diesel	4.95	26-Aug-06
30-Aug-06	Napakiak Tank Farm Overfill	Diesel	10	Open
20-Dec-09	LKSD Day Tank Overfill	Diesel	30	Open
24-Mar-10	LKSD Napakiak N-10	Diesel	15	Open

6.0 SITE RECONNAISSANCE

6.1 General Site Conditions

A site reconnaissance was conducted by Cathy Needham of Kai Environmental Consulting Services, LLC on September 13-14, 2010. Ms. Needham walked the entire project area, took Global Positioning System (GPS) points and site photos, and noted any concerns for each site. Table 2 represents the sites documented. Site locations are in Figure 1.

Table 2. Documented sites from site reconnaissance for Napakiak Community Streets Project (2010). Table includes GPS points referred to in Figure 1, site name, photo number, and the section number of the document referencing the site.

<i>Photo</i>	<i>Site Name</i>	<i>GPS point(s)</i>	<i>Section</i>
1	Old dump	185	6.2
2	Back-up power plant and AST at old dump	185	6.2
3	Trash transfer station	170, 181, 183, 184	6.2
4	Lagoon, School district	180	6.3
5	Lagoon, City	186	6.3
6	Water treatment facility	175	6.4
7	United Utilities Building	none	6.6

Table 2 cont. Documented sites from site reconnaissance for Napakiak Community Streets Project (2010). Table includes GPS points referred to in Figure 1, site name, photo number, and the section number of the document referencing the site.

<i>Photo</i>	<i>Site Name</i>	<i>GPS point(s)</i>	<i>Section</i>
8	Tank farm, near school	174	6.10
9	AST - mobile, at barge landing (moved)	173	6.10
10	Fuel intake, Gas/diesel ~30' from road center	176	6.10
11	Fuel intake, close-up picture	176	6.10
12	Bulk fuel, By Jung's Trading Post	177	6.10
13	Coastal Villages Region Fund fuel tank	178	6.10
14	Fuel station, Bulk fuel- no spill containment	179	6.10
15	ASTs	172	6.10
16	Station by store, Gasoline station	182	6.10
–	National Guard, 2 ASTs	171	6.10

6.2 Solid Waste Disposal

The City of Napakiak operates a new Class 3 landfill under ADEC permit SW3A031-16 (ADEC 2011). The City's new landfill was completed in summer 2010 and has been in use since spring 2011. It is located about a half mile west of the lagoon, south of the old landfill and well outside the project area. Waste is currently being covered on-site but the city is working towards obtaining a burnbox and a piece of heavy equipment to help move, bury, and compact waste and ash. City-employed landfill operator and maintenance personnel from Napakiak attended a Rural Alaska Landfill Operator in October 2011 (Huntman interview, Appendix C).

The old dumpsite (photo 1) is accessed by a road that is included in the Napakiak Community Streets project. The area also includes a city-owned back-up power plant and AST (photo 2). The old dumpsite was closed to use and covered with fill material in spring 2011 when the new landfill began operation. The old dumpsite was an uncontained Class 3 landfill. No official final closure documents have been submitted to date but ADEC Solid Waste Program personnel did not foresee any further cleanup efforts needed for final closeout approval. The KECS site visit and documentation took place prior to the old dump clean up and closure.

The Indian General Assistance Program (IGAP) of the Native Village of Napakiak has a program to pick up household refuse from several "transfer points" around the village (Photo 3) and then haul it to the new landfill. The community also collects and stores aluminum for recycling. Recyclables will be barged out or picked up by Ryan Air, as to be determined at a future time (Slats interview, Appendix C).



Photo 1: Old Dumpsite in Napakiak, Alaska.



Photo 2: Back-up Power Plant and AST, at old dump in Napakiak, Alaska.



Photo 3: Garbage Transfer Point in Napakiak, Alaska.

6.3 Wastewater Treatment/Disposal/Sewage Discharge

Napakiak does not have a piped sewage system. Fifty-six residents use a flush and haul system with low water toilets. Household wastewater is piped to an exterior 100-gallon above-ground tank, or “dog house.” The city operates a water and sewer service which includes ATV pick up and servicing of dog-houses using a vacuum pump and tank. The wastes are then transferred to the city lagoon. The community and school sewage lagoons are both well-contained. Photos 4 and 5 depict the old and new sewage lagoons. Figure 1 shows the location of both lagoons.



Photo 4: Old Lagoon in Napakiak, Alaska.



Photo 5: New Lagoon in Napakiak, Alaska.

6.4 Drinking Water

There is no piped water and sewer service in Napakiak. A central watering point provides the community with treated well water under DEC permit #262319. A water delivery truck operated by the city provides service and distribution to residences, which have 100-gallon capacity water tanks. An estimated half of Napakiak residents do not pay for the water truck fee and instead self-haul water from the central watering point (interview with Mr. Lawrence Black, Appendix C). In the winter, many residents also melt river ice for drinking water.

The City of Napakiak also operates a washeteria (Photo 6) which treats water from a different well. The washeteria facilities include a 2,000 gallon treated water tank which is used for the washeteria laundromat and restrooms. This tank also serves as the back-up community water supply.



Photo 6: Water Treatment Plant in Napakiak, Alaska.

6.5 Surface Water Discharge

The area around Napakiak is relatively flat and has poor drainage. During large rainfall events and storms, surface water filters from the slightly higher elevations in the area and flows through the community and into the Kuskokwim River.

6.6 Electrical/Communication Utilities

Electricity is generated by Bethel Utilities and transmitted by overhead lines to the community. The Napakiak Ircinraq Power Company, which is operated by the village council, purchases and distributes the electricity. United Utilities provides communication service, including telephone and internet (photo 7).



Photo 7: United Utilities Building in Napakiak, Alaska.

6.7 Staging and Material Sites

Borrow and other construction materials are brought in from Bethel, either by barge or by residents with large boats. There is no local borrow source or material site. Construction wastes are disposed of in the local landfill.

6.8 Hazardous Materials Storage, Use and Handling

No records of hazardous materials storage or use were found for Napakiak. According to interviews with local officials (Section 7 and Appendix C), hazardous materials were historically disposed of at the old landfill but are now separated and stored in a locked storage shed. These hazardous wastes are slated to be backhauled at a future time.

6.9 Spill and Stained Areas

There were no spills or stained areas observed during the site investigation. Further discussion regarding petroleum spills may be found in Section 5.1.

6.10 Above Ground Storage Tanks (ASTs)

Many community and residential buildings in Napakiak have associated ASTs for bulk fuel and heating purposes. The ADCCED community profile lists three bulk fuel facilities in Napakiak (ADCCED 2011): Lower Kuskokwim School (LKSD) has a bulk fuel facility with a capacity of 76,156 gallons (photo 8), Napakiak Corp has a bulk fuel facility with a capacity of 70,200 gallons (photo 14), and Jung's Trading Post has bulk fuel storage with a capacity of 1,530 gallons (photo12). The ADCCED list does not include the community gas station bulk fuel facilities (photo 16) or the unidentified bulk fuel facility in photo 15. There is also fuel intake and storage for barge service (photos 9-11). Photo 13 shows a community building AST.



Photo 8: Tank Farm Near School in Napakiak, Alaska.



Photo 9: AST- mobile, at barge landing in Napakiak, Alaska (moved since site visit).



Photo 10: Gas/Diesel ~30' From Road Center in Napakiak, Alaska.



Photo 11: Fuel Intake, Gas/Diesel ~30' from Road Center in Napakiak, Alaska.



Photo 12: Bulk Fuel by Jung's Trading Post in Napakiak, Alaska.



Photo 13: Coastal Villages Region Fund Fuel Tank in Napakiak, Alaska.



Photo 14: Fuel station. Bulk Fuel - No Spill Containment, in Napakiak, Alaska.



Photo 15: ASTs (no other info on log) in Napakiak, Alaska.



Photo 16: Gas Station in Napakiak, Alaska.

6.11 Underground Storage Tanks (USTs)

According to the records research, there are no USTs listed in the environmental databases for Napakiak. Tanks cannot be buried in this locale due to permafrost, as confirmed in interviews (see section 7.0 below).

6.12 Other possible contaminants

The records research did not reveal any Polychlorinated Biphenyls (PCBs), asbestos, lead, or radon found in Napakiak.

7.0 INTERVIEWS

7.1 Interview(s) with Owners(s)

Mr. Lawrence Black, the City Administrator for the City of Napakiak, was interviewed September 23, 2011 regarding the environmental concerns in the project area. Mr. Black said he did not know of any contaminated sites associated with the local tank farms or any other areas of the community, either reported or unreported.

Mr. Black also provided supporting information on the water, wastewater, solid waste, utilities, and construction materials for the Napakiak community. A full account of the interview can be found in Appendix C.

7.2 Interviews with Local Government Officials

Mr. Joseph Slats, Tribal Administrator for the Native Village of Napakiak, was interviewed October 3, 2011. Mr. Slats did not know of any unreported spills or other potential sources of contamination. Mr. Slats did recall that the Army National Guard came into Napakiak to test and remove some soils but did not remember the date of this visit or any other details of the case (this is the DEC contaminated site that is detailed in Section 5.1). Mr. Slats confirmed the operating dates of the new dumpsite as well as hazardous waste and recycling practices in the village. A full account of the interview can be found in Appendix C.

7.3 Interviews with Others

Mr. Daniel Nelson, the General Manager of Napakiak Corporation and its subsidiaries, was interviewed October 10, 2011. Mr. Nelson did not know of any potentially contaminated sites in Napakiak.

Mr. Robert Carlson of the Bethel ADEC office was interviewed October 12, 2011 and provided further information on the open spill sites in the community. Several are still being cleaned and investigated, and may even be elevated to the Alaska DEC Contaminated sites list. Details can be found in Section 4.1 of this document.

Mr. Doug Huntman of the ADEC Division of Environmental Health Solid Waste Program is the Rural Landfill Specialist for Western Alaska. Mr. Huntman was interviewed November 2, 2011 regarding the old and new landfill sites in Napakiak. Information from his interview is used in sections 6.2 and 8.1 of this document.

A full record of these interviews can be found in Appendix C.

8.0 FINDINGS AND CONSIDERATIONS

8.1 On-Site Environmental Concerns

The old village landfill is the only on-site environmental concern for the project. During the 2010 Kai Environmental Consulting Services site visit, the road segment leading to the dump was carefully examined for stains, odors, and signs of previous dumpsite use in the roadbed or adjacent area but none were observed. Household trash and debris were present in the project area at the time of the KECS site visit (prior to dump clean up and closure). Closeout activities for the old dump began in fall 2010 and by spring 2011, the site was completely closed to use, cleaned, and covered over. ADEC Rural Landfill Specialist Doug Huntman conducted field visits to the old and new Napakiak landfills twice in 2010, in July and again in September. At the time of his second visit, the old dump was already mostly

closed-out. Mr. Huntman had no significant concerns about contamination at the site and did not think further cleanup of the area would be necessary for official closure.

8.2 Off-Site Environmental Concerns

The Federal Scout Armory is the only DEC contaminated site for Napakiak and falls outside the project area. It is listed as an active site currently undergoing cleanup and closeout operations (see Appendix A for details).

Open spill sites in the community are another concern. The Napakiak Naparyalruar Corporation Tanks and the LKSD tanks are both associated with large past spills and current open spills. The Corporation tanks had three large diesel spills: 600 gallons, 200 gallons, and 120 gallons. The LKSD tank farm was responsible for a 150-gallon diesel spill. The current open sites for both sites are due to smaller diesel spills. See Section 5.1 and Appendix C for details on the Napakiak Spill Record. Both the Corporation and the LKSD tank farms are outside the project area.

9.0 CONCLUSIONS AND RECOMMENDATIONS

There are no on-site issues that would require a Phase II Environmental Site Assessment.

There are some minor recommendations for the project. These include:

- Monitor final closeout approval for the old dumpsite to ensure no remaining contaminants will affect the Napakiak Community Streets project.

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10.0 REFERENCES

Alaska Department of Commerce, Community and Economic Development; Division of Community and Regional Affairs Community Profiles Database:

http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.cfm

Alaska Department of Environmental Conservation, Division of Spill Prevention and Response Contaminated Sites Program Database:

http://dec.alaska.gov/spar/csp/db_search.htm

Alaska Department of Environmental Conservation, Division of Spill Prevention and Response Contaminated Sites Program, Brownfields List:

<http://dec.alaska.gov/spar/csp/brownfields.htm>

Alaska Department of Environmental Conservation, Division of Spill Prevention and Response Contaminated Sites Program, List of Department of Defense Agencies and associated contaminated sites in Alaska: http://dec.alaska.gov/spar/csp/dod_sites.htm#fuds

Alaska Department of Environmental Conservation, Division of Spill Prevention and Response Underground Storage Tank Database:

<http://dec.alaska.gov/spar/ipp/ust/search/default.htm>

Alaska Department of Environmental Conservation, Division of Spill Prevention and Response Spills Database: <http://dec.alaska.gov/spar/perp/search/search.asp>

Alaska Department of Environmental Conservation, Division of Water, Village Safe Water Program: <http://dec.state.ak.us/water/vsw/index.htm>

Alaska Division of Community and Regional Affairs, Rural Utility Business Advisor Program (Jan-Feb 2011) "Lien Watch: A Review of Small Community Liens."

"Lien Watch: September-October 2011 Update." Available online at:

<http://commerce.alaska.gov/dcra/StaffDir/GetPubl.cfm>

Alaska Native Tribal Health Consortium, Division of Environmental Health and Engineering:

<http://www.anthc.org/cs/dehe/>

Environmental Protection Agency, Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLA/Superfund):

<http://yosemite.epa.gov/r10/cleanup.nsf/webpage/Alaska+Cleanup+Sites>

Environmental Protection Agency, Envirofacts Database:

<http://epa.gov/enviro/html/multisystem.html>

Environmental Protection Agency, National Pollution Discharge Elimination System
Information: http://cfpub.epa.gov/npdes/stateinfo.cfm?&view=state&state_id=2&state=AK

Environmental Protection Agency, National Priorities List:
<http://www.epa.gov/superfund/sites/npl/>

Native American Management System for Environmental Impacts: <https://www.namsei.com>

Rodney P. Kinney Associates, 2009. Napakiak Long Range Transportation Plan Update.
Prepared for Association of Village Council Presidents, Bethel, AK.

Rudis, D.D. 2009. Yukon Delta National Wildlife Refuge Contaminant Assessment.
U.S. Fish and Wildlife Service, Juneau Field Office, Alaska. 133 pp.

U.S. Army Corps of Engineers, Community Flood Hazard Data:
<http://66.223.166.160/DataSheets/Napakiak.pdf>

U.S. Geological Survey, Alaska Resource Data File: <http://ardf.wr.usgs.gov/digital.html>

Figure 1: Phase I Map

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Figure 1: Phase I ESA Map
 Napakiak Community Streets Project



-  Proposed Centerlines
-  GPS Point - Phase I ESA



Township 7N, Range 72W, Section 18
 Seward Meridian
 Bethel Recording District

USGS 1:63,360 Quadrangle -
 Bethel C-8

File: Napkiak_PhaseI.mxd
 Date: May 2011

Appendix A: Contaminated Sites

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Alaska Department of Environmental Conservation
Contaminated Sites Database
 Cleanup Chronology Report for
 AKARNG Napakiak FSA

File Number	2431.38.002	Hazard ID	2454
SiteName	AKARNG Napakiak FSA	Staff	Debra Caillouet - 9072690298
Address 1	Near Power Plant	Status	Active
Address 2		Landowner	Alaska Army National Guard
City/State/Zip	Napakiak, AK 99634		
Latitude	60.695900	Meridian	Seward
Longitude	-161.954198	Range	072
Section	17	Township	007

Problem/Comments Petroleum contamination at site.

Action Date	Action	Description	DEC Staff
02/21/1996	Site Added to Database	Site added to database.	Wright, Bill
02/22/1996	Site Ranked Using the AHRM	Site ranked.	Wright, Bill
09/09/1997	Site Ranked Using the AHRM	Site reranked. Changed Access Value from 2 to 3; Air Exposure Index Value from 0.1 to 0.2; GW Usage Value from 0.1 to 1; SW Usage Value from 0.5 to 1; and Environmental/Recreation from 0 to 2. Former score was 24.	Pexton, Scott
09/12/1997	Site Ranked Using the AHRM	Site reranked. Changed Air Exposure Index Value from 0.2 to 0.1. Former score was 0.	Pexton, Scott
07/17/1998	Update or Other Action	Received draft site sampling plan prepared by CH2MHILL.	Pexton, Scott
07/23/1998	Update or Other Action	Letter sent with comments on site sampling plan.	Pexton, Scott
08/12/1998	Update or Other Action	Letter sent with additional comments on site sampling plan.	Pexton, Scott
02/08/1999	Update or Other Action	Received draft Remedial Investigation Report prepared by CH2MHILL.	Pexton, Scott
04/30/1999	Update or Other Action	Letter sent with comments on draft report.	Pexton, Scott
05/26/1999	Update or Other Action	Received Final Remedial Investigation Report prepared by CH2MHILL.	Pexton, Scott
10/14/1999	Site Ranked Using the AHRM	Site reranked based on a 9/9/1998 letter from William Vagt and information in the 1999 Remedial Investigation Report.	Pexton, Scott
03/19/2004	Update or Other Action	File number assigned: 2431.38.002.	Cunningham, Sarah
06/02/2004	Update or Other Action	ADEC received Final Interim Removal Action Plan.	Egbejimba, Beatrice
07/02/2004	Update or Other Action	DEC issued a letter stating the following: DEC has completed review of the document titled: Final Interim Removal Action Plan, Federal Scout Army, Napakiak, Alaska dated March 2004 and offers the following comments. DEC concurs with the general approach of the plan however, can not provide approval to the plan as written. The plan provides a general approach for the excavation, and handling of impacted petroleum contaminated soil but lacks site specific detail for DEC approval under 18 AAC 75. DEC understands that the AKARNG is performing this action to reduce risk to human health and the environment under 18 AAC 75.330, to provide for a partial cleanup at the site and not achieve cleanup levels. It is presumed that information gathered during this interim action will provide data to be used in determining any future actions required for site clean up. In conclusion, DEC has no objection to the interim removal approach provided and will defer any further regulatory decisions until review of the data collected from the site work.	Pikul, David

05/24/2005	Update or Other Action	Staff reviewed the Installation Action Plan and sent these comments: The IAP fairly summarizes the results of a Site Investigation in 1995 and a Remedial Investigation in 1998. The main area impacted is on the south side of the old armory building near the former aboveground storage tank. Diesel Range Organics (DRO) were found up to 38,000 mg/kg in the surface soil. On the north side of the armory up to 31,000 mg/kg DRO was identified in the surface soil near the fuel pipeline and at the valve junction northwest of the armory up to 20,000 mg/kg DRO was found. BTEX was not detected in soil above 18 AAC 75.341 Method II levels at any location. DEC issued a letter of non-objection for an Interim Removal Action Plan in July 2004. The IAP states that no deliverables from that action have been received but that the fieldwork and transportation/disposal elements have been completed. DEC does not have any record of a soil transportation approval as required by 18 AAC 75.370(b). Please submit a removal action report documenting work that has been completed and include documentation on the current location of the 60 cubic yards of contaminated soil reported to have been excavated. The IAP states that after the removal of the 60 cubic yards, DRO remained in the soil next to the armory foundation at levels up to 18,000 mg/kg. The removal of the armory building would be required to further excavate contaminated soil. The cleanup strategy in the IAP suggests that Alternative Cleanup Levels (ACL) may be investigated for the site. If a no further action status can not be obtained based on the ACL's then long term monitoring with five year reviews would be implemented. The information available is not sufficient for DEC to make an evaluation of the appropriateness of the cleanup strategy. When the results of the Interim Removal are available, DEC would like to work with the Alaska Army National Guard to determine the most appropriate actions for the Napakiak Federal Scout Armory.	Caillouet, Debra
10/20/2005	Update or Other Action	Staff drafted a comment letter on the draft Interim Removal Action report.	Caillouet, Debra
04/01/2008	Exposure Tracking Model Ranking	Initial ranking with ETM completed.	Caillouet, Debra
04/29/2008	Interim Removal Action Approved	The Final Interim Removal Action Report, Federal Scout Armory, Napakiak, Alaska, November 2006 documents the removal of 61 cubic yards of petroleum contaminated soil from three areas. Area 1 is adjacent to the south side of the old armory building and is the former location of a 3,000-gallon heating oil above ground storage tank. Approximately 56 cubic yards of contaminated soil was removed. Confirmation sampling showed diesel range organics (DRO) remaining in the soil up to 18,000 mg/kg and gasoline range organics (GRO) up to 2,400 mg/kg. Benzene and xylene were also detected above cleanup levels. Additional actions will be needed to achieve closure for this area. Area 2 was the location of a leaking pipeline joint where four cubic yards of contaminated soil was removed. Confirmation sampling did not detect any DRO, GRO or benzene, toluene, ethylbenzene and xylene (BTEX) above cleanup levels. The area of a former pipeline valve where the armory pipeline spur branched from the main pipeline was designated Area 3. One cubic yard of contaminated soil was removed and confirmation sampling at the limits of the excavation did not detect DRO, GRO or BTEX above cleanup levels. The report documents the actions were consistent with 18 AAC 75.330, Interim Removal Actions.	Caillouet, Debra
08/13/2008	Update or Other Action	Staff reviewed the site characterization work plan and provided comment to the AKARNG.	Caillouet, Debra
12/03/2008	Report or Workplan Review - Other	Staff sent comment to the Guard on the draft Site Characterization Report.	Caillouet, Debra

02/18/2009	Report or Workplan Review - Other	The Alaska Department of Environmental Conservation received final secondary site characterization report for Napakiak. The report provides additional characterization of the nature and extent of the contamination remaining at the Armory, but it does not completely define the extent. Sampling near the road indicates that soil under the road is most likely impacted but no samples were obtained in the road bed to determine the extent. The 1998 sampling results showed DRO in Area 2, associated with a pipeline to be contaminated but this sampling event did not include Area 2. When planning for a final remedial action at the Napakiak FSA these data gaps from the site characterization will need to be considered and addressed.	Caillouet, Debra
02/03/2010	Meeting or Teleconference Held	Staff participated in the Installation Action Plan meeting.	Caillouet, Debra
11/30/2010	Report or Workplan Review - Other	Staff reviewed and sent comment to the Alaska Army National Guard on the Draft Work Plan for Site Characterization at 21 Alaska Federal Scout Readiness Centers, November 2010, including the Site Specific Plans for Akiak, St. Mary's and Tuntutuliak.	Caillouet, Debra
02/25/2011	Report or Workplan Review - Other	Comment was sent on the Field Sampling Plans for Napakiak, Tununak, Mountain Village and Kipnuk, February 2011	Caillouet, Debra
05/23/2011	Site Characterization Workplan Approved	Final Work Plan for Site Characterization at 21 Alaska Federal Scout Readiness Centers, April 2011 approved.	Caillouet, Debra

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Appendix B: Spill Record

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Spills Database Online Query

Spill Details: William Miller Memorial School Heating - 2/22/2006 11:30:00 AM					
Facility Name	Street	City	Zip Code		
William Miller Memorial School	Lower Kuskokwim School District	Napakiak	99634		
Facility Type					
School					
Responsible Company		Contact	Address		
LOWER KUSKOKWIM SCHOOL DIST.		DESMET, PAT	LKSD BOX 305		
Area	Sub Area	Region	Location		
Central Alaska	Western Alaska	Lower Kuskokwim	Napakiak		
Substance		Released	Contained	Recovered	Unit
Diesel		4.95	4.95	4.95	Gallons
Causes					
Overfill					
Sources					
Tank, Heating					
Reporter's Name		Reporter's Phone	Date Reported		
Bruce Kleven Norman Black		no phone	2/22/2006 11:45:00 AM		
Action			Action Date		
Complaint/Report Received			2/22/2006		
Case Closed, No Further Action			8/26/2006		
Disposal Code		Description			
51		INCINERATED			
Comment					
#1 heating fuel					

Spills Database Online Query

Spill Details: Day Tank Overfill Napakiak, AK - 12/20/2009 7:00:00 AM

Facility Name	Street	City	Zip Code
Napakiak Teacher Housing Day Tank, Napakiak, AK	no address	Napakiak	99634

Facility Type
no facility type

Responsible Company	Contact	Address
no company	-	no address

Area	Sub Area	Region	Location
Central Alaska	Western Alaska	Lower Kuskokwim	Napakiak

Substance	Released	Contained	Recovered	Unit
Diesel	30	-	-	Gallons

Causes
no cause

Sources
no source

Reporter's Name	Reporter's Phone	Date Reported
Norman Black (907)589-2420	no phone	12/21/2009 4:05:00 PM

Action	Action Date
Complaint/Report Received	12/21/2009
Field Visit	7/27/2010
Field Visit	8/24/2010
Field Visit	9/10/2010

Disposal Code	Description
no code	no decription

Comment

<<there are no comments for this spill>>

Spills Database Online Query

Spill Details: LKSD Napakiak N-10 - 3/24/2010 11:00:00 PM

Facility Name	Street	City	Zip Code
NAPAKIAK SCHOOL UTILITY BUILDING DAYTANK	no address	Napakiak	no zip

Facility Type
School

Responsible Company	Contact	Address
Lower Kuskokwim School District	Hanson, , Gary	no address

Area	Sub Area	Region	Location
Central Alaska	Western Alaska	Lower Kuskokwim	Napakiak

Substance	Released	Contained	Recovered	Unit
Diesel	15	-	10	Gallons

Causes
Overfill

Sources
Tank, Heating

Reporter's Name	Reporter's Phone	Date Reported
Norman Black, LKSD Napakiak	no phone	3/25/2010 9:00:00 AM

Action	Action Date
Communication, Other	4/2/2010
Communication, Other	4/2/2010
Letter Of Interest Issued	4/6/2010
Field Visit	7/27/2010
Field Visit	8/24/2010
Complaint/Report Received	3/25/2010
Communication, Other	3/25/2010
Other	3/30/2010
Communication, Other	3/31/2010
Field Visit	9/10/2010
Communication, Other	4/1/2010

Disposal Code	Description
59	PADSPREAD

Comment

<<there are no comments for this spill>>

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Appendix C: Interviews

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Telephone Record

Date: 09/23/2011
Between: Lawrence Black (Napakiak City Administrator) and Evelyn Fisher
Project: Napakiak Community Streets Project
Subject: Phase I
Time: 11:00 a.m. **Phone Number:** 907-589-2610

1. How does the community deal with water and wastewater services?

There is a public watering point at the community washeteria. Well water is pumped to the water treatment facility (at the washeteria). There is also a laundromat in this facility. Residences have a 100-gallons water supply tank for plumbing and tap water to the house. Wastewater from houses is pumped to an exterior wastewater and sewage “doghouse” with a 100-gallon capacity.

2. How are solid wastes dealt with in the community? Where are the past and current dumpsites?

The City is currently working to obtain a landfill permit for the new landfill. The last permit expired in June [*and was for the old dumpsite??*]. The old landfill was not controlled and was closed about two years ago.

Household wastes are self-hauled to one of the four transfer stations in the community. These transfer stations are trailers about 4’x8’ in dimension. They can fit about 200 garbage bags. Transfer trailers are taken to the dump and trash is separated into burnables and non-burnables.

There is an IGAP program with federal funding to help manage hazardous wastes and recyclables in the community. Recyclables and hazardous materials like old cars and ATVs, batteries, and refrigerators are picked up by barge. Tribal Administrator Joseph Slats (589-2135) would know more about this.

3. Who provides fuel and utilities within the community?

Napakiak Corporation provides fuel. The Napakiak Corporation subsidiary Napakiak Ircinraq Power Company purchases and distributes electricity within Napakiak. Electricity is purchased from Bethel Utilities and brought in via a 3-phase overhead line from Bethel. There are one or two standby generators in the village. These are above ground. All utility services are above ground. No utilities or storage tanks are underground due to permafrost.

4. Are you aware of any spills or contaminated sites in the Napakiak area, either reported or unreported? For example, past fuel spills dumpsites, military sites, or mining operations? If so, please describe.

The school and corporation both have tank farms but Mr. Black did not know of any spills or contaminated sites associated with these bulk fuel facilities or anywhere else in the community.

5. Does the community have a local borrow source that can be as construction material?
No, material source must be boated in from Bethel, by barge or by local residents with large boats. Construction wastes go to the local landfill.

Follow-up: 10/12/2011

6. Residential wastewater goes to individual “doghouses” with 100 gallon capacity exterior to residences. How are “dog houses” emptied?

The city operates water and sewer service that includes emptying the doghouses. A four-wheeler with an attached trailer is used to carry a vacuum operated pump and tank. The tank has a 100-gallon capacity. A valve is attached to the doghouse and then the vacuum pump is used to empty it. A small (~4 inch) disposable hose is used to connect the doghouse to the tank.

7. Where is the new landfill located?

The new landfill is in the southwest part of the village, about 2,500 feet west of the existing lagoon.

8. What is the current status of the old landfill?

The old landfill is closed. The area has been cleaned and covered over/buried. The cleanup of the old landfill is through the Village Safe Water Program and the contractor is Bering Pacific Construction, based in Anchorage. A site inspection took place early October 2011.

9. Was the expired ADEC landfill permit for the old or new landfill? What is the status of the current permitting?

The expired permit was for both landfill sites. The city has already begun the process of renewing a permit for the new landfill site. This process is expected to take 45-60 days.

10. What are the current locations treated water is available in the community?

The water treatment facility and central watering point are separate from the local washeteria and use different well water sources. Community members can haul their own water from the central watering point or have residential water tanks serviced by the city’s water truck (this has an associated fee). Mr. Black estimates about half the community uses the water truck delivery service. Community members also use river ice as a source of drinking water in the winter. The treated community well water is still used for dishwater, bathing, and toilets.

The washeteria has 2,000 gallon water tank that services laundromat equipment, showers, and restrooms. The washeteria draws from a different well and has its own water treatment equipment. If the main community well (for the central watering point) runs out, community members get water from the washeteria tank. There was a new well in one of the subdivision areas but it was closed. Mr. Black did not know why or if this was related to potentially contaminated well water.

11. Where are construction equipment and materials staged in the community?

Construction staging for vans, forklifts, and other construction materials and equipment is at beach area/riverfront area or construction site.

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Telephone Record

Date: 10/03/2011
Between: Joseph Slats (Tribal Administrator, Native Village of Napakiak) and Evelyn Fisher
Project: Napakiak Community Streets Project
Subject: Phase I
Time: 2:30 p.m. **Phone Number:** 907-589-2135

1. Can you elaborate on the current need for this project in the community?
There is lots of dust from the roads in the summertime. ATV and vehicle traffic or winds stir up the dust. Drivers and pedestrians inhale dust under these conditions. During the rainy times of year, there are lots of potholes on the roads, which can make driving rough for trucks and ATVs. The roads are also too narrow to accommodate two-way truck traffic, which can lead to congestion issues. Some culverts need improvement to allow for proper draining of runoff. Dust control is the main improvement priority.

2. How are solid wastes dealt with in the community? Where are the past and current dumpsites?
The new dumpsite has been in use since spring of this year. Construction of the new dumpsite was completed last summer (summer 2010).
Recycling – aluminum only. These materials are being collected along with hazardous wastes in a locked shed in the community. They will either be barged out or picked up by Ryan Air.

Hazardous wastes such as old batteries, used oils, old ATVs and snow machines, and refrigerators are separated from other wastes and are being collected and stored in a locked shed in the community. At some future time, they will be dealt with (most likely barged out).

3. Who provides fuel and utilities within the community?
Napakiak Electric provides electricity and has a fuel tank farm, in operation since last summer.

4. Are you aware of any spills or contaminated sites in the Napakiak area, either reported or unreported? For example, past fuel spills, dumpsites, military sites, or mining operations? If so, please describe.
The National Guard came into the community and did some soil testing and removal. Mr. Slats did not recall a date for this visit.

5. Does the community have a local borrow source that can be as a construction and staging material?
No, gravel is barged in from Bethel.

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Telephone Record

Date: 10/10/2011
Between: Daniel Nelson (General Manager, Napakiak Corporation) and Evelyn Fisher
Project: Napakiak Community Streets Project
Subject: Phase I
Time: 10:30 a.m. **Phone Number:** 907-589-2227

1. What information can you provide on the old and new dumpsites?
The new dumpsite was opened this year. At this time, use was completely switched over from the old dump. The old dump was cleaned and covered with fill material. It is no longer used by the community or community members.
The new dumpsite is about a half mile west from the lagoon. It has two burn bins. Wastes are brought to the dump and sorted into burnables and non-burnables. Non-burnables are compacted on site.
2. Who provides fuel and utilities within the community?
A Napakiak Corporation subsidiary operates the electricity service, purchased from Bethel Utilities. This store also sells heating fuel and gasoline.
3. Are you aware of any spills or contaminated sites in the Napakiak area, either reported or unreported? For example, past fuel spills dumpsites, military sites, or mining operations?
If so, please describe.
No.

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Telephone Record

Date: 10/12/2011
Between: Robert Carlson (Alaska DEC SPAR Program) and Evelyn Fisher
Project: Napakiak Community Streets Project
Subject: Phase I
Time: 3:30 p.m. **Phone Number:** 907-543-3215

30-Aug-2006, Napakiak Tank Farm Overfill:

DEC site investigation was based on a complaint. The site is north of the Corporation tank farm by an estimated 20-30 feet. Soil tests indicated commination, extent unknown. Based on further investigation, the site may be elevated to the contaminated sites list.

20-Dec-2009, LKSD Day Tank Overfill:

This spill was caused by a tank overfill at teacher housing. The spill itself was minor but further contamination was discovered upon the removal of the tank and some soils during a summer 2011 site visit. Excavation was continued 5 or 6 feet down, down to the groundwater level, and under the house where possible and contaminants were still present. Moving the house off-site to continue excavation/cleanup was suggested but there were logistical issues. Treatment in-place was requested and this is being reviewed. This will be a longer-term cleanup.

24-Mar-10, LKSD Napakiak N-10:

This is a fairly minor spill awaiting inspection for either close out approval or a final round of excavation. The spill is near the school, at the tank at the back of the generator building. The tank has some containment but some contamination was discovered outside the containment area. Soils were excavated but a final inspection is needed before close out.

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Telephone Record

Date: 11/02/2011
Between: Doug Huntman (Environmental Program Specialist, Alaska DEC Division of Environmental Health) and Evelyn Fisher
Project: Napakiak Community Streets Project
Subject: Phase I
Time: 3:00 p.m. **Phone Number:** 907-269-7642

Napakiak's new landfill received final approval two weeks ago. They are currently burying on site but are looking into getting a burnbox and piece of heavy equipment to help move, compact, and bury waste. Mr. Huntman was present on a site visit to Napakiak in July 2010 and again in August or September of 2010 and saw both the new landfill and the old, closed landfill site. The old landfill is no longer in use and has been cleaned and covered over. No final closeout documents have been submitted and there has been no official approval of closeout for the old dump. The funding for the new landfill was not dependent on the closeout of the old landfill. However, Mr. Huntman thought the community seemed interested and motivated in making sure the old dumpsite was appropriately closed out, though it may not be an immediate priority. Mr. Huntman stated he had no major concerns about the old dumpsite or its closeout. He also shared that a landfill operator and maintenance person from Napakiak attended the Rural Alaska Landfill Operator (RALO) training October 11-13, 2011.

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APPENDIX G: PUBLIC AND AGENCY SCOPING DOCUMENTATION

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PUBLIC SCOPING REPORT

NAPAKIAK COMMUNITY STREETS IMPROVEMENTS NAPAKIAK, ALASKA

Prepared for:

Association of Village Council Presidents
P.O. Box 219
Bethel, Alaska 99559

Prepared by:



16515 Centerfield Drive, Suite 101
Eagle River, Alaska 99577

June 2012

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Purpose of the Scoping Report	1
1.2	Project Description.....	1
2.0	AGENCY SCOPING	1
2.1	Agency Scoping Methods	1
2.2	Summary of Agency Written Comments.....	2
3.0	PUBLIC MEETINGS.....	2
3.1	Public Meeting Methods	2
3.1	Summary of Public Meeting	2
4.0	SUMMARY OF ISSUES IDENTIFIED IN THE SCOPING PROCESS	2

APPENDECES

Appendix A- Agency Scoping Letter

Appendix B- Agency Scoping Mailing List

Appendix C- Agency Scoping Comments

Appendix D- Public Meeting Advertising

Appendix E- Public Meeting Comment Form

Appendix F- Public Meeting Sign-in Sheets

1.0 INTRODUCTION

1.1 Purpose of the Scoping Report

The purpose of this report is to serve as a supplement to the National Environmental Policy Act (NEPA) process being prepared for Bureau of Indian Affairs. This report will provide documentation of the public scoping process for Napakiak Community Streets Improvements Project in Napakiak, Alaska. To ensure that all factors are considered in the development of the environmental document and the project design, your comments are requested.

1.2 Project Description

The purpose of the proposed project is to reconstruct the community streets in Napakiak. The community streets are in need of reconstruction and lack surfacing on the majority of roads in the project area. Drainage improvements are also required in some parts of the project to facilitate, maintain, and improve hydraulic connectivity. The roads will be designed to meet American Association of State Highway and Transportation Officials (AASHTO) standards. The existing roads provide access to businesses, community facilities, and housing.

The community streets being reconstructed are shown in Figure 1. Approximately 1.4 miles of existing road will be reconstructed and resurfaced. Improved roads will be 20-foot wide and topped with a 6-inch crushed aggregate layer. The roads will be treated with a dust palliative to minimize dust within the community. Drainage along the proposed upgrades will be improved with the replacement of damaged or under-sized culverts and the installment of new culverts where needed. Upgrades will include plastic culverts of varying sizes, up to 36 inches placed along the roadways for positive drainage. Appendix A provides additional information and other resources identified in the project.

2.0 AGENCY SCOPING

2.1 Agency Scoping Methods

Agency scoping was led by Rodney P. Kinney Associates, Inc. Scoping letters were sent out May 25, 2011 to all state/ federal environmental and natural resource regulatory agencies that would be needed in the NEPA process. Agencies were given 30 days to respond and then follow-up calls were conducted to any agencies who did not respond to initial request. Agencies did not respond were contacted an additional two times via phone.

A copy of the scoping letter and the mailing list, indicating who the letter was sent to can be found in Appendix A and B. A scoping map showing the project can also be found in Appendix A.

2.2 Summary of Agency Written Comments

Initial responses from agencies were received from the following organizations, with copies attached in Appendix C:

1. State of Alaska, Department of Fish and Game
2. US Fish and Wildlife Service
3. Nation Oceanic and Atmospheric Administration (NOAA), verbal only
4. USDA, US Forest Service (USFS)
5. State of Alaska, Department of Environmental Conservation
6. Bureau of Land Management (BLM)
7. State of Alaska, Department of Natural Resources

The remaining agencies had no comment for this project.

3.0 PUBLIC MEETINGS

3.1 Public Meeting Methods

The Association of Village Council Presidents hosted a public meeting on behalf of Native Village of Napakiak. The meeting was advertised by fliers posted in the community, see Appendix E.

During the meeting Brian Pederson from Rodney P. Kinney Associates, Inc. provided an overview of the project and helped answering questions. Participants were given an optional comments form for comments regarding the project, see Appendix F.

3.1 Summary of Public Meeting

The meeting held May 15th, 2011 was attended by Napakiak IRA, the City of Napakiak, Napakiak Corporation, and RPKA. Sign-in sheets can be found in Appendix G. Issues that arose during the meeting were drainage problems during spring break-up and dust control on existing roads.

4.0 SUMMARY OF ISSUES IDENTIFIED IN THE SCOPING PROCESS

The main issue that arose about this project was the wetlands located within the project area. This project would need a wetland delineation and review by USACE. DNR Division of Mining, Land and Water would require a reclamation plan for material sites on non-state land.

Other issues that will be taken into account are drainage problems within the village and dust control on roads.

No other issues were brought to our attention during this NEPA scoping process.

Appendix A

Agency Scoping Letter

May 23, 2011

Project: Napakiak Community Streets Project
Project Number 10-BP-1541F
Subject: Agency Scoping Comments Requests

Dear Agency Staff Members:

Rodney P. Kinney Associates Inc. (RPKA) on Behalf of the Association of Village Council Presidents and the Bureau of Indian Affairs is soliciting comments on the proposed project to rehabilitate the community streets in Napakiak. The project components include raising and reconstructing roads and replacing and installing new drainage culverts. Property for this project is located with platted public right-of-way owned by the City of Napakiak or, will be needed to be acquired from the Naparyalruar Corporation.

The community of Napakiak is located approximately 15-miles southwest of Bethel. The proposed project is located within Napakiak as illustrated on Figure 1 in Section 17, Township 7 North, Range 72 West, Seward Meridian (USGS Quad map Bethel C-8), at approximately 60.696670° North Latitude and -161.951940 West Longitude.

In accordance with the National Environmental Policy Act (NEPA), RPKA requests any comments you may have about the proposed project.

Purpose and Need:

The purpose of the proposed project is to reconstruct the community streets in Napakiak. The community streets are in need of reconstruction and lack surfacing on the majority of the project area. Drainage improvement are also required in some parts of the project to facilitate maintain and improve hydraulic connectively. The roads will be designed to meet American Association of State Highway and Transportation Officials (AASHTO) standards. The existing roads provide access to businesses, community facilities, and housing.

Propose Action:

The community streets being reconstructed are shown in Figure 1. Approximately 1.4 miles of existing road will be reconstructed and resurfaced. Improved roads will be 20-foot wide and topped with a 6-inch crushed aggregate layer. The roads will be treated with a dust palliative to minimize dust within the community. Drainage along the proposed upgrades will be improved with the replacement of damaged or under sized culverts and the installment of new culverts where needed. Upgrades will include plastic culverts of varying sizes, up to 36 inches placed along the roadways for positive drainage.

To ensure that all factors are considered in the development of the environmental document and the project design, your comments are requested. Appendix A provides additional information and other resources identified in the project.

Construction is anticipated to begin in 2012. Please provide your written comments and /or recommendations and the additional requested information to our office no later than April 30, 2011.

If you have any question on the environmental effects or wish to respond by email to your agencies specific question, contact Aaron Hiemsta at (907) 694-2332 or via email at aaronh@rpka.net.

Sincerely,

RODNEY P. KINNEY ASSOCIATES, INC.



Brian Pederson, P.E., P.L.S
Project Manager

Links: Figure 1
Appendix A

Cc: Clarence Daniel, Transportation Director, Association of Village Council Presidents

Appendix A
Preliminary Research Results
Napakiak Community Streets Project

Contaminated Sites, Spills, and Underground Storage Tanks: A search of the Alaska Department of Environmental Conservation databases on May 23, 2011 found one contaminated sites in Napakiak and no leaking underground storage sites. The contaminated sites are the AKARNG Napakiak FSA. The site is not within any of the planned project areas.

Anadromous Fish Streams: A search of the Alaska Department of Fish and Game *Atlas to the Catalog of Waters Important to the Spawning, Rearing or Migration of Anadromous Fishes* on found that no anadromous fish steam or rivers are in the project area.

Essential Fish Habitat: No Anadromous fish streams are within the project area according to a search completed of the Alaska Department of Fish and Game *Atlas to the Catalog of Waters Important to the Spawning, Rearing or Migration of Anadromous Fishes* therefore there is no essential fish habitat (EFH). Consultation with NOAA will be conducted to ensure compliance with the Magnuson-Stevens Fishery and Conservation Management Act.

State Refuges, Critical Habitat Areas and Sanctuaries: A review of the Alaska Department of Fish and Game Publication *State of Alaska Refuges, Critical Habitat Areas, and Sanctuaries* found that no state lands designated as State Refuges, Critical Habitat Areas, or Sanctuaries are in the project vicinity.

Historical, Archeological and Cultural Properties: A cultural resources investigation and report is being prepared for the project. Once completed consultation will be conducted with the State Historic Preservation Officer and the community to determine effects of the project on cultural resources.

Coastal Zone Management: A review of the *Coastal Zone Boundaries Atlas* found that the project is within the Alaska Coastal Management Program and within the Ceñaliulriit Coastal Resource Service Area. A Coastal Project Questionnaire will be submitted to the Office of Project Management and Permitting for review to ensure compliance with coastal zone state standards and Ceñaliulriit CRSA enforceable policies.

Navigability, Flood Plan Management, and Wetlands: A search of the DNR Navigable Waters Map, found that no navigable steam or rivers are in the project area. The community of Napakiak does not participate in the National Flood Insurance Program; therefore a flood hazard permit is not required. USACE lists a flood of record for Napakiak in 1990 at 0 .4-feet.

Site investigation indicated that much of the area around Napakiak and the project site is wetland. The National Wetlands Inventory Mapper has no data for the area. A preliminary wetlands report is being prepared for the project. Once completed consultation will be conducted with the Corps of Engineers.

Threatened and Endangered Species: A search of the U.S. Fish and Wildlife Service (USFWS) Alaska Region website found that Steller's Eider, Spectacled Eider, and Short Tailed Albatross

may occur within the project area. Consultation with USFWS will be conducted to determine the presence of Eiders and/or Albatrosses in the project area.

Eagle Nests: No eagle nests are known to occur at or near the project area.

National Wildlife Refuges: The community of Napakiak, including the project area is located on a private in-holding owned by the village and regional Native Corporations within the Yukon Delta National Wildlife Refuge.

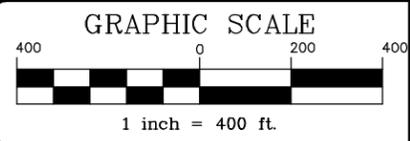
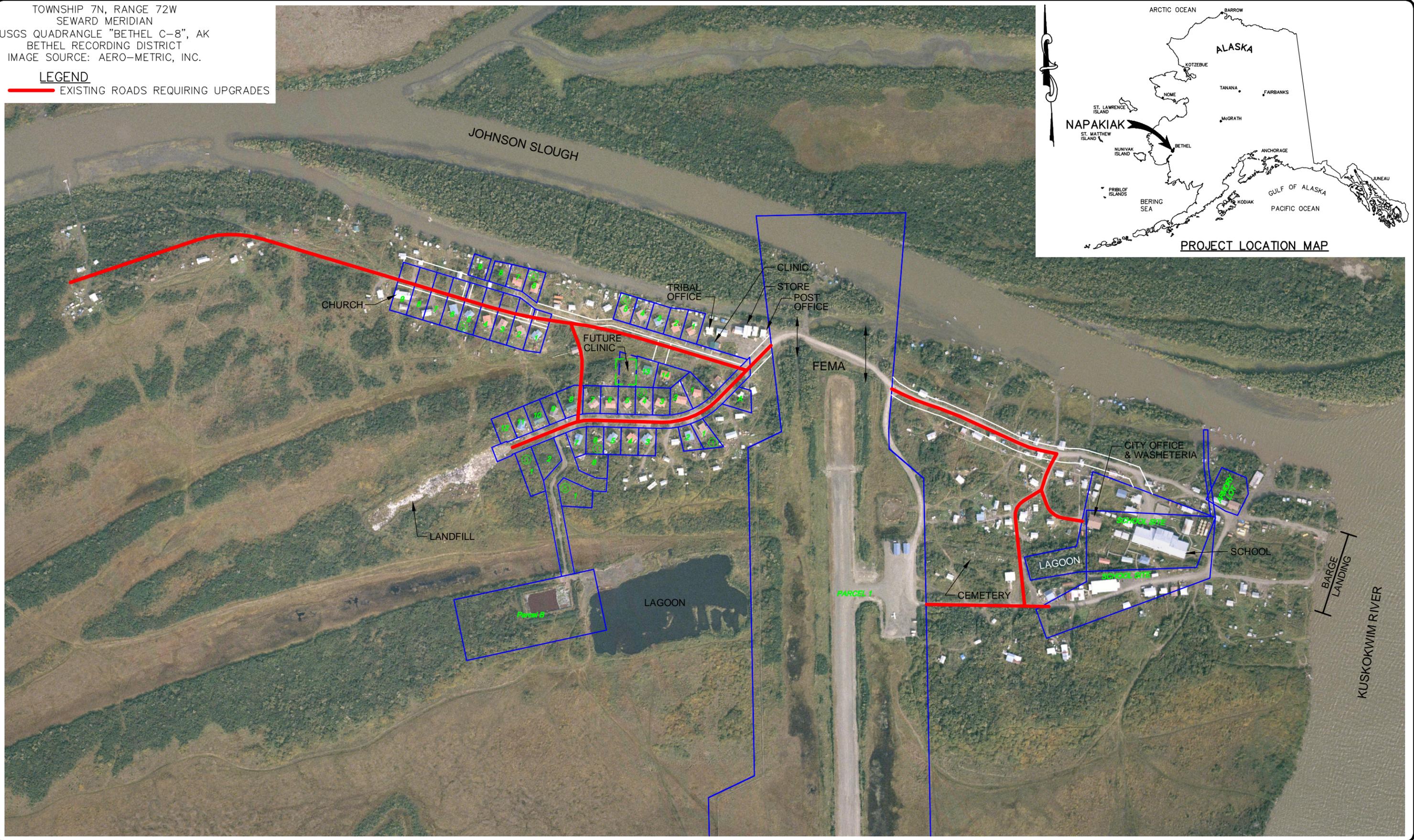
National Parks, Preserves, Monuments and Wild and Scenic Rivers: No National Parks, Preserves, Monuments or Wild and Scenic Rivers are located in the project area.

Material and Disposal Sites: The material for the project will be imported for the project. All appropriate clearances and permits will be obtained and a Storm Water Pollution Prevention Plan (SWPPP) will be designed and implemented. Minimal amounts of waste materials are anticipated to be generated from this project the largest of which will be old culverts pipes that are being replaced. We intend to work with community of Napakiak to recycle these materials.

TOWNSHIP 7N, RANGE 72W
 SEWARD MERIDIAN
 USGS QUADRANGLE "BETHEL C-8", AK
 BETHEL RECORDING DISTRICT
 IMAGE SOURCE: AERO-METRIC, INC.

LEGEND

 EXISTING ROADS REQUIRING UPGRADES



ASSOCIATION OF VILLAGE
 COUNCIL PRESIDENTS
 P.O. BOX 219
 BETHEL, ALASKA 99559
 PHONE:(907)543-7300 FAX:(907)543-3596



UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF INDIAN AFFAIRS
 ALASKA REGIONAL OFFICE

AGENCY SCOPING MAP
 NAPAIAK COMMUNITY STREETS

DESIGNED BY:	AEC
DRAWN BY:	SPK
APPROVED BY:	BLP
DATE:	MARCH 23, 2011
SCALE:	1" = 400'

ATTACHMENT 1

Appendix B

Agency Scoping Mailing List

Napakiak Agency Coordination Contact List

Agency	Division	Envelope Contact name	Contact name	Last Name	Address	City	State	Zip	Title
Alaska Dept. of Natural Resources	Office of Project Mangment and Permitting	ATTN: Don Perrin	Attention: Don Perrin	Dear Mr. Perrin	550 West 7th Ave Suite 1430	Anchorage	AK	99501	
US Fish and Wildlife	Division of Migratory Bird Management	ATTN: Russell M. Oates	Attention: Russel M. Oates	Dear Mr. Oates	1011 East Tudor Road	Anchorage	AK	99503	Division Chief
US Fish and Wildlife	Anchorage Fish and Wildlife Field Office	ATTN: Ann Rappoport	Attention: Ann Rappoport	Dear Ms. Rappoport	605 West 4th Avenue	Anchorage	AK	99501	Field Supervisor
US Fish and Wildlife	Yukon Delta National Wildlife Refuge	ATTN: Gene Peltola	Attention: Gene Peltola	Dear Mr. Peltola					
US Forest Service	Regional Office	ATTN: Beth Pendleton	Attention: Beth Pendleton	Dear Ms. Pendleton	P.O. Box 21628	Juneau	AK	99802	Regional Forester
US Forest Service	Regional Office	ATTN: Ms. Bergstrom	Attention: Ms Bergstrom	Dear Ms. Bergstrom	P.O. Box 21628	Juneau	AK	99802	
National Oceanic and Atmospheric Administration	National Marine Fisheries Service, Habitat Conservation Division	ATTN: Jeanne Hanson	Attention: Jeanne Hanson	Dear Ms. Hanson	P.O. Box 43	Anchorage	AK	99513	Field Office Supervisor
Department of the Army, US Army Engineer District	Alaska Regulatory Division	ATTN: Ben Soiseth	Attention: Ben Soiseth	Dear Mr. Soiseth	P.O. Box 6898	Elmendorf AFB	AK	99506	South Branch
US Environmental Protection Agency, Region 10	Alaska Operations Office	ATTN: Jennifer Curtis	Attention: Jennifer Curtis	Dear Ms. Curtis	222 W. 7th Ave # 19	Anchorage	AK	99513	Director
Denali Commission	Transportation Program	ATTN: Tessa Delong	Attention: Tessa Delong	Dear Ms. Delong	510 L. Street	Anchorage	AK	99501	Senior Program Manager
Denali Commission	Transportation Program	ATTN: Adison Smith	Attention: Adison Smith	Dear Ms. Smith	510 L. Street	Anchorage	AK	99501	Senior Program Manager
Denali Commission	Transportation Program	ATTN: Mike McKinnon	Attention: Mike McKinnon	Dear Mr. McKinnon	510 L. Street	Anchorage	AK	99501	Senior Program Manager
Alaska Native Tribal Health Consortium	Division of Environmental Health and Engineering	ATTN: Riki Lebman	Attentaion: Riki Lebman	Dear Ms. Lebman	1901 Bragaw Street, Suite 200	Anchorage	AK	99508	Enviornmental Coordinator
Bureau of Land Management	Anchorage District Office	ATTN: Gary Reimer	Attention: Gary Reimer	Dear Mr. Reimer	222 W 7th Ave. # 13	Anchorage	AK	99513	District Manager Anchorage DO
Bureau of Indian Affairs, West Central Alaska Agency	Division of Environmental and Cultural Resources Management	ATTN: Mark Kahklen	Attention: Mark Kahklen	Dear Mr. Kahklen	3601 C Street, Suite 1258	Anchorage	AK	99503	Division Director
Bureau of Indian Affairs, West Central Alaska Agency	Transportation Department	ATTN: Julie Stoneking	Attention: Julie Stoneking	Dear Ms. Stoneking	3601 C Street, Suite 1258	Anchorage	AK	99503	Point of contact
USDA Natural Resources Conservation Service	Bethel Field Office	ATTN: Norm Stadem	Attention: Norm Stadem	Dear Mr. Stadem	P.O. Box 1869	Bethel	AK	99559	
US Department of Transportation	Federal Highways Administration, Alaska Division	ATTN: Tim Haugh	Attention: Tim Haugh	Dear Mr. Haugh	P.O. Box 21648	Juneau	AK	99519	Environment/Right-of-Way Program Manager
US Department of Transportation	Federal Highways Administration, Alaska Division	ATTN: John Lohrey	Attention: John Lohrey	Dear Mr. Lohrey	P.O. Box 21648	Juneau	AK	99519	
US Department of Transportation	Western Federal Lands	ATTN: Dale Lewis	Attention: Dale Lewis	Dear Mr. Lewis	610 E 5th Street	Vancouver	WA	98661	Program Engineer
US Department of Transportation	Western Federal Lands	ATTN: Terry Schumann	Attention: Terry Schumann	Dear Mr. Schumann	611 E 5th Street	Vancouver	WA	98662	
Alaska Dept. of Transportation and Public Facilities	Central Regional Office	ATTN: Jennifer Witt	Attention: Jennifer Witt	Dear Ms. Witt					
Alaska Dept. of Transportation and Public Facilities	Central Regional Office	ATTN: Amy Sebbby	Attention: Amy Sebbby	Dear Ms. Sebbby					
Alaska Dept. of Transportation and Public Facilities	Central Regional Office								
Calista Corporation		ATTN: Christine Klein	Attention: Christine Klein	Dear Ms. Klein	301 Calista Court	Anchorage	AK	99518	Chief Operating Officer
Alaska Department of Natural Resources	Water Resources	ATTN: Sandra Singer	Attention Sandra Singer	Dear Ms. Singer	550 W. 7th Avenue Ste 900c	Anchorage	AK	99501	
Alaska Department of Environmental Conservation	Compliance Program	ATTN: Frances Roche	Attention Frances Roche	Dear Ms. Roche	P.O. Box 111800	Juneau	AK	99801	
Alaska Department of Environmental Conservation	Drink Water Program	ATTN: David Khan	Attention David Khan	Dear Mr. Khan	P.O. Box 111800	Juneau	AK	99801	
Alaska Department of Fish and Game	Division of Habitat	ATTN: Kerry Howard	Attention Kerry Howard	Dear Mr. Howard	333 Raspberry Road	Anchorage	AK	99518	
Lower Kuskokwim School District		ATTN: Blair Alden	Attention: Blair Alden	Dear Mr. Alden					Assistant Superintendent
Napakiak IRA		ATTN: Jacob Black	Attention: Jacob Black	Dear Mr. Black	PO Box 34069	Napakiak	AK	99634	President
Napakiak Corporation		ATTN: Carl Motgin	Attention: Carl Motgin	Dear Mr. Motgin	PO Box 34030	Napakiak	AK	99634	President
City of Napiakiak		ATTN: Richard Junj	Attention: Richard Junj	Dear Mr. Junj	PO Box 34009	Napakiak	AK	99634	Mayor

Appendix C

Agency Scoping Comments

Subject: RE: Scoping Response Requests

From: "Bales, James E (DFG)" <james.bales@alaska.gov>

Date: Fri, 22 Jul 2011 12:59:19 -0800

To: Aaron Hiemstra <aaronh@rpka.net>

Hi Aaron,

For the proposed Scammon Bay project:

A water withdrawal from the Kun River or any other fish bearing waterbody will require a Fish Habitat Permit. Any barge landing work below ordinary high water in the Kun River would also need a Fish Habitat permit. I have no other comments or concerns about the proposed project.

For the proposed Alakanuk project:

Appendix A indicates that there are no anadromous fish streams in the project area, however Alakanuk Pass of the Yukon River in a cataloged anadromous fish stream. Alakanuk Pass (Stream No. 334-10-10990) is known to support Arctic char, sheefish, whitefish, and Chinook, pink, chum, sockeye, and coho salmon. A water withdrawal from the Alakanuk Pass or any other fish bearing waterbody will require a Fish Habitat Permit. Any barge landing work below ordinary high water in Alakanuk Pass would also need a Fish Habitat permit. I have no other comments or concerns about the proposed project.

For the proposed Chevak project:

A water withdrawal from the Ningikfak River or any other fish bearing waterbody will require a Fish Habitat Permit. Any barge landing work below ordinary high water in the Ningikfak River would also need a Fish Habitat permit. I have no other comments or concerns about the proposed project.

For the proposed Napakiak project:

Appendix A indicates that there are no anadromous fish streams in the project area, however because Johnson Slough connects the Kuskokwim River and the Johnson River (both of which are cataloged anadromous fish streams) any activities in or near Johnson slough or the Kuskokwim River will be reviewed and permitted under the Anadromous Fish Act (AS 16.05.871) . A water withdrawal from Johnson Slough, the Kuskokwim River, or any other fish bearing waterbody will require a Fish Habitat Permit. I have no other comments or concerns about the proposed project.

For the proposed Crooked Creek project:

A water withdrawal from Crooked Creek, the Kuskokwim River, or any other fish bearing waterbody will require a Fish Habitat Permit. I have no other comments or concerns about the proposed project.

For all of the road upgrade projects, a Fish Habitat Permit would be needed if any of the drainage culverts were placed in a fish bearing waterbody.

Thank you for the opportunity to review and comment on the proposed projects. Please let me know if you have any questions.

Jim Bales, Habitat Biologist
Alaska Department of Fish and Game
Division of Habitat
333 Raspberry Road
Anchorage, AK 99518
(907) 267-2143

From: Aaron Hiemstra [mailto:aaronh@rpka.net]

Sent: Wed 6/29/2011 10:21 AM

To: Howard, Kerry M (DFG); Khan, David S (DEC); Roche, Frances E (DEC); Singer, Sandra J (DNR)

Subject: Scoping Response Requests

Dear Agency Staff Members:

Please click on the links below to access the Scoping Letters for the Community Streets Projects in Scammon Bay, Chevak, Crooked Creek, Napakiak, and Alakanuk. The document is in PDF format and can be viewed, as well as printed through Adobe Acrobat. If you have any questions about opening the document and/or the associated link please contact me at 694-2332.

http://rpka.net/files/Scammon_Bay

<http://www.rpka.net/files/Alakanuk>

<http://www.rpka.net/files/Chevak>

<http://www.rpka.net/files/Napakiak>

http://www.rpka.net/files/Crooked_Creek/Scoping

You may submit responses to me via mail, email, or fax. We appreciate you taking the time to review the information and provide comments for this project. We look forward to receiving your comments and recommendations.

Thank you,

Aaron Hiemstra, E.I.T., CISEC

Rodney P. Kinney Associates, Inc

16515 Centerfield Dr. Suite 101

Eagle River, AK 99577

Phone:(907) 694-2332

Fax: (907) 694-1807

Email: aaronh@rpka.net



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Anchorage Fish & Wildlife Field Office
605 West 4th Avenue, Room G-61
Anchorage, Alaska 99501-2249



In reply refer to:
AFWFO

July 18, 2011

Aaron Hiemstra
Rodney P. Kinney Associates Inc.
16515 Centerfield Drive
Eagle River, Alaska 99577

Re: Road improvement projects in Five Villages:
Alakanuk (*Consultation numbers 2011-0162*)
Chevak (*Consultation numbers 2011-0163*)
Crooked Creek (*Consultation numbers 2011-0138*)
Napakiak (*Consultation numbers 2011-0165*)
Scammon Bay (*Consultation numbers 2011-0164*)

Dear Aaron,

On June 22, 2011, we received your request for information regarding threatened and endangered species listed under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq., as amended, ESA) that may be affected by your proposal to conduct road improvements in the listed villages. These projects are needed to rehabilitate trails and roadways that are currently in a state of disrepair or do not meet the safety needs of the communities. The US Fish and Wildlife Service (Service) is providing information on listed species pursuant to section 7 of the ESA. Funding for these projects is provided by the Association of Village Council Presidents, the Bureau of Indian Affairs, and/or the Denali Commission. Construction will be conducted in 2012.

Listed species

Species listed under the ESA that may be found in or near the Yukon-Kuskokwim region include spectacled eider (*Somateria fischeri*, listed as threatened in 1993), North American breeding Steller's eider (*Polysticta stelleri*, listed as threatened in 1997), polar bear (*Ursus maritimus*, listed as threatened in 2008), and Pacific walrus (*Odobenus rosmarus divergens*, listed as a candidate species in 2011).

Alakanuk (*Consultation numbers 2011-0162*)

Spectacled eiders (*Somateria fischeri*, listed as threatened in 1993), may breed in the Alakanuk area. Around spring break-up, spectacled eiders select undisturbed nesting areas on wet coastal tundra near shallow ponds or lakes. Nests are usually within ten feet of sloughs, small rivers, or ponds. The females and their young remain until early September. Breeding and brood rearing may occur near the project area.

Offshore areas downstream from Alakanuk have been designated as critical habitat for the polar bear. Norton Sound is critical habitat when sea ice is present. Barrier islands at the mouth of the Yukon River are designated as critical habitat. A half-mile buffer around the barrier islands is designated as no disturbance critical habitat. The presence of polar bears near the mouth of the Yukon River is strongly associated with the presence and characteristics of sea ice in the area. Bears can be found as far south as the Yukon-Kuskokwim Delta during the winter months. As the ice pack retreats during spring and summer, the bears move north, departing from the area.

Pacific walrus may be found in the offshore marine waters downstream from Alakanuk. Pacific walrus distribution varies seasonally and is limited by water depth and ice conditions. Most of the population spends the summer months in the pack-ice of the Chukchi Sea; however several thousand animals, primarily adult males, use coastal haulouts in the Bering Sea during the ice-free season. The Pacific walrus is listed as a candidate species. Candidate species receive no official protection under the ESA. However, incorporating their needs into project plans will simplify the reinitiation process should they be listed in the future.

Scammon Bay (*Consultation numbers 2011-0164*)

Scammon Bay is located in an area known to be used by nesting spectacled eiders. Offshore marine areas near Scammon Bay provide habitat for spectacled eider staging and migration. Offshore areas have also been designated as Polar Bear critical habitat when sea ice is present, and walrus may also occupy these areas.

The road improvements in Alakanuk and Scammon Bay will be conducted only on existing road surfaces within the village footprint. These roads do not provide suitable nesting habitat for spectacled eiders. However, road construction may have indirect impacts to marine waters used by spectacled eiders, polar bears, and walrus if suitable measures are not taken to prevent release of sediments or contaminants during construction. We recommend incorporating measures into the project to prevent fuel spills from vehicles or equipment, and to contain any spills that occur. Additionally, all appropriate measures should be taken to prevent release of sediments into storm water. You have indicated that a construction Storm Water Pollution Prevention Plan will be prepared for each project. The SWPPPs should incorporate Best Management Practices to stabilize disturbed soil, protect waterways, and prevent unnecessary soil disturbance and wetland impacts.

Chevak (*Consultation numbers 2011-0163*)

The community of Chevak is located in an area designated as critical habitat for nesting spectacled eiders and known to be used for this purpose. Offshore marine areas near Chevak provide habitat for Steller's and spectacled eider staging and migration. Offshore areas have also been designated as Polar Bear critical habitat when sea ice is present, and may contain walrus. Work in Chevak includes installation of new hardened trails that will be constructed along the river. For new construction, we recommend avoiding impacts to nesting eiders by initiating ground-disturbing activities in suitable nesting habitat prior to or after the May 5 – July 25 nesting season. If activities cannot be initiated during this period, we recommend foot surveys for nests be conducted prior to construction. If nests are found, the project should be halted until after the nesting season. Please contact the Service for additional guidance on conducting nest surveys.

As with Scammon Bay and Alakanuk, road construction in Chevak may also have indirect impacts on marine waters due to release of sediments or contaminants. Measures should be taken to prevent release of sediments and contaminants into storm water.

Additional information is needed for regarding the source of fill to be used in the Alakanuk, Chevak, and Scammon Bay. If fill will be acquired from an area where spectacled eiders nest, this could affect nesting eiders. Will the fill come from an existing material source, or will a new source be opened? Will any

unusable materials be removed from existing roads for disposal? If so, where will materials be removed to? Are any other indirect or interrelated impacts being considered?

Please evaluate whether the proposed projects in Alakanuk, Chevak, and Scammon Bay will have “no effect” on listed species (that is, there are no listed species present). Alternately, if you determine that your project “may effect” listed species or critical habitat, please evaluate whether each project “is” or “is not” “likely to adversely affect” these species and the critical habitat in the area. Please describe any information you use to make this determination and any impact avoidance and minimization measures that will be included in the project. Please also provide additional information regarding the source of fill to be used for each project. After receiving your determination, the Service will review your evaluation. If we concur with your determination, the Section 7 review of these projects will be completed.

Crooked Creek (*Consultation numbers 2011-0138*)

The Service submitted a letter to you indicating there are no listed species present near Crooked Creek. This letter was sent June 15, 2011, and signed by Judy Jacobs. No further ESA coordination is required for this project at this time. However, you should contact us if project plans change, if a new species is listed, or critical habitat is determined that may be affected by the identified action.

Napakiak (*Consultation numbers 2011-0165*)

Our records indicate that there are no federally listed or proposed species, or designated or proposed critical habitat, within the action area of the proposed project in Napakiak. Therefore no further ESA coordination is required for this project at this time. However, you should contact us if project plans change, if a new species is listed, or critical habitat is determined that may be affected by the identified action.

This letter relates only to federally listed or proposed species and/or designated or proposed critical habitat under jurisdiction of the Service. It does not address species under the jurisdiction of National Marine Fisheries Service, or other legislation or responsibilities under the Fish and Wildlife Coordination Act, Migratory Bird Treaty Act, Marine Mammal Protection Act, Clean Water Act, National Environmental Policy Act, or Bald and Golden Eagle Protection Act. For more information on the endangered species consultation process, please see

http://alaska.fws.gov/fisheries/endangered/consultation_guide.htm.

You can use this on-line guide to determine if future projects will impact listed species. The Anchorage Fish and Wildlife Field Office consultation map is available on this website. If your project will occur within a green area of the map that has no listed or proposed species or designated or proposed critical habitat nearby, you can make the determination that the project will have "no affect", and no further consultation is necessary; simply cite the guidebook in your paperwork. However, if there are any uncertainties, or if you have any questions, please contact me at (907) 271-2066.

Thank you for your cooperation in meeting our joint responsibilities under the ESA. If you have any questions, please contact me at (907) 271-2066.

Sincerely,

Kimberly Klein
Endangered Species Biologist

RODNEY P. KINNEY ASSOCIATES, INC.

Record of Conversation/Meeting

Date: 6/22/11

Time: 11:30 AM

Sheet 1 of 1

With: <u>MATT EAGLETON</u> <small>Regional Coordinator</small>	Representing: <u>NOAA</u>	Copy to: _____ _____ _____ _____ _____ _____ _____ _____
By: <u>AKH</u>	Project No./Name: <u>1541.d, 1541.f, 1541.4, 1541.e, and 1573.1/1603.5</u>	
Subject: <u>Scoping</u>		
<input checked="" type="checkbox"/> Phone Requested/Placed by: <input type="checkbox"/> RPKA <input type="checkbox"/> Meeting <input checked="" type="checkbox"/> Them		
Phone #: <u>271-5006</u> Meeting Location: _____		

NOAA has no comment, not an EFH affect.
 DOES'T SOUND LIKE A PROJECT THAT WOULD
 REQUIRE ANYTHING. NORMALLY COMMUNITY STREETS DO
 NOT HAVE IMPACTS TO EFH. VILLAGES INQUIRED ABOUT
 WERE SCAMMON BAY, CHEVAK, CROOKED CREEK, ALOKANAK, AND
 NAPAIAK.

ACTION REQUIRED:

None

Subject: Re: Scoping Response Requests
From: Beth Pendleton <bpendleton@fs.fed.us>
Date: Wed, 22 Jun 2011 12:59:55 -0800
To: Aaron Hiemstra <aaronh@rpka.net>

None of these projects appear to be within or adjacent to National Forest System Lands, and thus, no comments from the USFS. Thanks.

Beth G. Pendleton, Regional Forester
USDA Forest Service
Alaska Region

907-586-8863

Aaron Hiemstra <aaronh@rpka.net>

06/22/2011 11:06 AM

To bpendleton@fs.fed.us
cc
Subject Scoping Response Requests

My name is Aaron Hiemstra with Rodney P. Kinney Associates, Inc. I am following up on some scoping letters we e-mailed out around May 25th. There were 5 villages, Scammon Bay, Chevak, Crooked Creek, Alakanuk, and Napakiak. I was wondering if you had any responses to the projects. If you have any questions please feel free to call me at 694-2332 or email me at aaronh@rpka.net

Thank you,
Aaron Hiemstra, E.I.T., CISEC
Rodney P. Kinney Associates, Inc
16515 Centerfield Dr. Suite 101
Eagle River, AK 99577
Phone:(907) 694-2332
Fax: (907) 694-1807
Email: aaronh@rpka.net

Subject: RE: Scoping Response Requests
From: "Reichardt, Daniel A (DEC)" <daniel.reichardt@alaska.gov>
Date: Thu, 14 Jul 2011 08:40:25 -0800
To: aaronh@rpka.net

Aaron:

Thank you for including me in your scoping request for the 5 villages that you sent. I didn't see anything that you were proposing which would negatively impact drinking water systems. If, as the project continues, you have any specific concerns regarding impacts to drinking water systems, please contact me.

Thanks,
Dan

-----Original Message-----

From: Rygh, Sarah A (DEC)
Sent: Tuesday, July 12, 2011 1:34 PM
To: Reichardt, Daniel A (DEC)
Subject: FW: Scoping Response Requests

Meant to cc you on this.....

-----Original Message-----

From: Rygh, Sarah A (DEC)
Sent: Tuesday, July 12, 2011 11:15 AM
To: 'Aaron Hiemstra'
Subject: RE: Scoping Response Requests

Aaron,
I apologize for the run-around but I forwarded your request to Dan Reichardt who has more familiarity with these villages. He is out of the office today but I'm sure will provide you with comments if he has any.
Thank you,

Sarah Rygh, PE
Environmental Engineer
Drinking Water Program
Alaska Department of Environmental Conservation
555 Cordova Street
Anchorage, AK 99501
Ph: (907) 269-3076
Fax: (907) 269-7650

-----Original Message-----

From: Aaron Hiemstra [<mailto:aaronh@rpka.net>]
Sent: Tuesday, July 12, 2011 10:55 AM
To: Rygh, Sarah A (DEC)
Subject: Scoping Response Requests

Ms. Rygh,
I am following up on a scoping request I sent to David Khan, who said he forwarded it to you. The request was for 5 villages, Scammon Bay, Alakanuk, Chevak, Napakiak, and Crooked Creek. If you have any questions please feel free to e-mail me back or call me at 970-694-2332.

Thank you,

Aaron Hiemstra, E.I.T., CISEC
Rodney P. Kinney Associates, Inc
16515 Centerfield Dr. Suite 101
Eagle River, AK 99577
Phone: (907) 694-2332
Fax: (907) 694-1807
Email: aaronh@rpka.net

Subject: BLM Response
From: mvarner@blm.gov
Date: Wed, 22 Jun 2011 13:31:43 -0800
To: Aaron Hiemstra <aaronh@rpka.net>
CC: greimer@blm.gov

Based on my review of the scoping letters and maps, only one of the proposed projects (Crooked Creek) is located in proximity to BLM managed lands. However, the proposed road upgrades, etc. within the community of Crooked Creek do not appear to overlay BLM land. Since BLM lands are not affected by the proposed action, the BLM has no comments to provide at this time. However, as this specific project moves forward please continue to keep the the BLM informed of the progress.

Thanks,
Matt

Matthew S. Varner
Field Manager, Acting
Anchorage Field Office
4700 BLM Road
Anchorage, Alaska 99507-2599
907-267-1285 Office
907-250-9154 Cell

Subject: FW: FW: Scoping Response Requests

From: "Zuelow-Osborne, Cynthia J (DNR)" <cynthia.zuelow-osborne@alaska.gov>

Date: 8/12/2011 5:02 PM

To: Aaron Hiemstra <aaronh@rpka.net>

Hi again Aaron,

For projects located within Scammon Bay, Alakunuk, Chevak, and Napakiak:

Based on project materials available as of this date, my office (State of Alaska, Department of Natural Resources, Division of Mining Land and Water, Southcentral Region Easement Management Unit) will not require an application for approval of an easement from our office.

Please contact Ms. Christina Nahorney, who is also with the Division of Mining, Land and Water Southcentral Region Office, but who works with material sales, concerning whether or not additional requirements might apply to your proposed use of local gravel sources in Hooper Bay and Napakiak. I've cc'd her with this e-mail so that you have her contact information.

I wasn't able to look at the Crooked Creek proposal today, but will send another message as soon as possible on that proposal.

Thanks for your patience,

Cynthia Zuelow-Osborne

-----Original Message-----

From: Aaron Hiemstra [<mailto:aaronh@rpka.net>]

Sent: Friday, August 12, 2011 10:09 AM

To: Zuelow-Osborne, Cynthia J (DNR)

Subject: Re: FW: Scoping Response Requests

Thank you.

Aaron

On 8/12/2011 10:08 AM, Zuelow-Osborne, Cynthia J (DNR) wrote:

Hi Arron,

Thanks for the reminder message -I'm still shooting for this week (this afternoon), I'll let you know if I have to bump it back any further.

Cynthia

-----Original Message-----

From: Aaron Hiemstra [<mailto:aaronh@rpka.net>]

Sent: Friday, August 12, 2011 10:03 AM

To: Zuelow-Osborne, Cynthia J (DNR)

Subject: Re: FW: Scoping Response Requests

Cynthia,

I am just following up on the scoping responses.

Aaron Hiemstra
RPKA

On 8/4/2011 4:16 PM, Zuelow-Osborne, Cynthia J (DNR) wrote:

Aaron,

Your request for agency scoping comments concerning preliminary research results related to community street/access route improvements in five Western Alaskan communities was forwarded to my attention by Sandra Singer last Monday (08/01), and I completed my review of the preliminary research results presented in appendix A for three of these sites (Scammon Bay, Alakanuk and Chevak) today.

I will not be at my desk tomorrow (8/5) or Monday (8/8) but wanted

you

to know that you should receive a response from this office (DNR Division of Mining, Land and Water, Southcentral Region Land Office) concerning all five sites later next week.

Please feel free to contact me and/or leave a message for me at this e-mail address, or by telephone at my direct line (907-269-8575) concerning this matter.

Cynthia Zuelow-Osborne
Natural Resource Specialist III
Easement Management Unit
Southcentral Region Lands Office
DNR Division of Mining, Land and Water

-----Original Message-----

From: Singer, Sandra J (DNR)
Sent: Tuesday, August 02, 2011 12:48 PM
To: Zuelow-Osborne, Cynthia J (DNR)
Subject: FW: Scoping Response Requests

Cynthia - Can you take a look at these and give them feedback on whether

we will have any authorization in play? I have spoken to Aaron initially around July 1 and then again last week. In July he understood

we had to complete the hires and end of last week, I told him we can probably take a look at these. Do you have time to check them out?

-----Original Message-----

From: Aaron Hiemstra [<mailto:aaronh@rpka.net>]
Sent: Wednesday, June 29, 2011 10:22 AM
To: Howard, Kerry M (DFG); Khan, David S (DEC); Roche, Frances E (DEC);
Singer, Sandra J (DNR)
Subject: Scoping Response Requests

Dear Agency Staff Members:

Please click on the links below to access the Scoping Letters for the Community Streets Projects in Scammon Bay, Chevak, Crooked Creek, Napakiak, and Alakanuk. The document is in PDF format and can be viewed, as well as printed through Adobe Acrobat. If you have any questions about opening the document and/or the associated link

please contact me at 694-2332.

http://rpka.net/files/Scammon_Bay
<http://www.rpka.net/files/Alakanuk>

<http://www.rpka.net/files/Chevak>
<http://www.rpka.net/files/Napakiaak>
http://www.rpka.net/files/Crooked_Creek/Scoping

You may submit responses to me via mail, email, or fax. We appreciate you taking the time to review the information and provide comments for this project. We look forward to receiving your comments and recommendations.

Thank you,
Aaron Hiemstra, E.I.T., CISEC
Rodney P. Kinney Associates, Inc
16515 Centerfield Dr. Suite 101
Eagle River, AK 99577
Phone: (907) 694-2332
Fax: (907) 694-1807
Email: aaronh@rpka.net

--

Aaron Hiemstra, E.I.T., CISEC
Rodney P. Kinney Associates, Inc
16515 Centerfield Dr. Suite 101
Eagle River, AK 99577
Phone: (907) 694-2332
Fax: (907) 694-1807
Email: aaronh@rpka.net

Subject: RE: Scoping Response Request

From: "Nahorney, Christina B (DNR)" <christina.nahorney@alaska.gov>

Date: 1:07 PM

To: Aaron Hiemstra <aaronh@rpka.net>

Existing material sites- if they are State land- will require a material sales contract. Non-State land only requires a reclamation plan.

C

-----Original Message-----

From: Aaron Hiemstra [<mailto:aaronh@rpka.net>]

Sent: Monday, August 15, 2011 1:00 PM

To: Nahorney, Christina B (DNR)

Subject: Re: Scoping Response Request

We would be removing material from existing material sites that are in use or barging in material.

Aaron

On 8/15/2011 12:21 PM, Nahorney, Christina B (DNR) wrote:

Are you intending to remove any material from State land? If so let me

know which documents I need to review.

If you are moving material from private land- you will be required to submit a reclamation plan.

Thanks

C

-----Original Message-----

From: Aaron Hiemstra [<mailto:aaronh@rpka.net>]

Sent: Monday, August 15, 2011 11:51 AM

To: Nahorney, Christina B (DNR)

Subject: Scoping Response Request

Ms. Nahorney,

My name is Aaron Hiemstra with Rodney P. Kinney Associates, Inc. I am working on some project in rural Alaska. Cynthia Zuelow-Osburn recommended I talk to you. I am looking for responses to a scoping request. Cynthia just wanted to make sure no permits would be required for use of local gravel sources. Here are the links to our scoping letter, map and additional information for each project.

<http://www.rpka.net/files/Alakanuk/>

<http://www.rpka.net/files/Chevak/>

http://www.rpka.net/files/Crooked_Creek/Scoping/

<http://www.rpka.net/files/Napakiak/>

http://www.rpka.net/files/Scammon_Bay/

If you have any questions please feel free to call me at 694-2332 or e-mail be back at aaronh@rpka.net

Thank you

Aaron Hiemstra, E.I.T., CISEC

Rodney P. Kinney Associates, Inc

16515 Centerfield Dr. Suite 101

Eagle River, AK 99577

Phone:(907) 694-2332

Fax: (907) 694-1807

Email: aaronh@rpka.net

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Aaron Hiemstra, E.I.T., CISEC
Rodney P. Kinney Associates, Inc
16515 Centerfield Dr. Suite 101
Eagle River, AK 99577
Phone: (907) 694-2332
Fax: (907) 694-1807
Email: aaronh@rpka.net

Appendix D

Public Meeting Advertising

Napakiak Community Street Upgrades

Public Meeting
Tuesday, March 15 2011
1:00 p.m.
Napakiak
Tribal Office Building



AVCP Transportation Department along with RP Kenney invites you to a public meeting for the Napakiak Community Street Upgrade Project.

We are in the process of completing environmental compliance activities, developing plans for the design and construction of improvements for the streets in Napakiak. The streets in the community are key elements to access services within the village.

The project purpose is to:

- Make improvements to allow for better access to services in the community
- Make improvements for the safety reasons

Why you should attend?

- Provide public comment
- Look at preliminary road maps
- Find out the tentative timeline for the project

Contact

Clarence Daniel, Transportation Director
Association of Village Council Presidents
Toll Free: (800) 478-3521
Direct: (907) 543-7337
Fax: (907) 543-7379
Email: clarence@avcp.org

Brian Pederson, Engineer
Direct: (907) 694-2332
brianp@rpka.net

Brent Latham, Transportation Planner
Association of Village Council Presidents
P.O Box 219
Bethel, AK 99559
Email: blatham@avcp.org

Appendix E

Public Meeting Comment Form

NATIVE VILLAGE OF NAPAKIAK
Napakiak Community Streets Project

Public Informational Meeting
March 15, 2011

Public Comments

go forth on the project - good for the
Village

Please send comments by April 15, 2011 to:

Clarence Daniel, Transportation Program Director
Association of Village Council Presidents
P.O. Box 219
Bethel, Alaska 99559
Phone: (907) 543-7337
Fax: (907) 543-3596

NATIVE VILLAGE OF NAPAKIAK
Napakiaak Community Streets Project

Public Informational Meeting
March 15, 2011

Public Comments

Cant wait to get dust control for
Napakiaak, Especially during cutting
fish, of all Salmon Species.

Please send comments by April 15, 2011 to:

Clarence Daniel, Transportation Program Director
Association of Village Council Presidents
P.O. Box 219
Bethel, Alaska 99559
Phone: (907) 543-7337
Fax: (907) 543-3596



NATIVE VILLAGE OF NAPAKIAK
Napakiak Community Streets Project

Public Informational Meeting
March 15, 2011

Public Comments

Would Napakiak EPA be able to get funding to maintain the culverts during springtime only, with the help of city.

Please send comments by April 15, 2011 to:

*Clarence Daniel, Transportation Program Director
Association of Village Council Presidents
P.O. Box 219
Bethel, Alaska 99559
Phone: (907) 543-7337
Fax: (907) 543-3596*

NATIVE VILLAGE OF NAPAKIAK
Napakiak Community Streets Project

Public Informational Meeting
March 15, 2011

Public Comments

* Drainage improvements - heated culverts for spring that for water logged areas.

* Lease agreement w/ city / cooperation / LKSD / regarding use of equipments.

*

*

Please send comments by April 15, 2011 to:

*Clarence Daniel, Transportation Program Director
Association of Village Council Presidents
P.O. Box 219
Bethel, Alaska 99559
Phone: (907) 543-7337
Fax: (907) 543-3596*

Appendix F

Public Meeting Sign-in Sheets

NATIVE VILLAGE OF NAPAKIAK
Napakiaak Community Streets Project

Public Informational Meeting
March 15, 2011
Please Sign In

Name	Organization	Address	Phone
Daniel Nelson	Napakiaak Corp.	Box 34030 Napakiaak, AK 99634	907 589-2327
Joseph Stets	Napakiaak IRA	Box 34069 Napakiaak 99634	589-2135
Julia B. Andrew	Napakiaak IRA	PO Box 34055 Napakiaak, AK 99634	589-6075
Mary Frye	Napakiaak Council	PO Box 34066 Napakiaak, AK 99634	589-2560
Katrina Andrew	City of Napakiaak	P.O. Box 34009 Napakiaak, AK 99634	589-2611
Walter Nelson	Napakiaak IRA	Box 34069 NAPAKIAK, AK 99634	589-2136
Eleanor Miller	CURF	Napakiaak, AK 99634	589-2300
ALEXIE TEMPLE	NAPAKIAK Corp	Box 34063 NAPAKIAK, AK 99634 P.O. Box 34114	589-2063
Sally K. Billy	Napakiaak Corp.	Napakiaak, AK 99634	589-2415
Molly A. Black	City of Napakiaak	P.O. Box 34073 Napakiaak, 99634	589-2726
Robert Aygen's	IRA	PO Box 34, Napakiaak, AK	589-2959
John Wassillie	Napakiaak IRA	Box 34031 Napakiaak	589-6039
Gracie Nelson	Napakiaak IRA	Box 75 Nap.	589-2140
Willie Kernok	Napakiaak IRA	PO Box 035 Napakiaak	589-2998
Alice Andrew	Napakiaak	P.O. Box 77 Napakiaak, Alaska	589-2877