Broad Review - Environmental Assessment
Determinations and Compliance Findings for HUD-assisted Projects
24 CFR Part 58
June 2020

Akiak Home Relocation and Managed Retreat Project

Project Information

Project Name: Akiak Home Relocation and Managed Retreat Project

Responsible Entity: Akiak Native Community

Grant Recipient (if different than Responsible Entity):

State/Local Identifier: Alaska

Preparer: Joel Neimeyer, P.E. & Sheila Carl

Certifying Officer Name and Title: Mike Williams, Chief, ANC

Grant Recipient (if different than Responsible Entity):

Consultant (if applicable): Joel Neimeyer, P.E.

Direct Comments to:

Sheila Carl, ANC Tribal Administrator
PO Box 52127
Akiak, AK 99552
Phone: (907) 765-7112 Fax: (907) 765-7512
Akiarmiu@yahoo.com

Project Location: Akiak, Alaska

Tiered Environmental Review (see 24 CFR Part 58.15 Tiering): This document is the first environmental review document of what is envisioned to be five documents that will communicate the potential environmental impacts associated with the Akiak Home Relocation and Managed Retreat Project (Project). This document provides broad Project descriptions, so that this information does not have to be repeated in subsequent site-specific environmental review documents. While the Project construction proposed is work commonly carried out in rural Alaska villages, the complexity for Akiak comes from the many different funding and regulatory agencies currently, and potentially, involved in the community's response to a new natural hazard (i.e. spring time high water / river bank destabilization). The five environmental review documents follow:

1. Broad Review Environmental Assessment - Akiak Home Relocation and Managed Retreat Project. This document.
2. Short-Term Response: Infrastructure Less Than 200 Feet from the River. This includes six home relocations and assorted "out buildings", riverbank stabilization and building a seventh home.
3. New Housing Subdivision Improvements.

4. Solid Waste Site, Honey-bucket Lagoon, and Sewage Lagoon Improvements.
5. Long-Term Response: Infrastructure Less Than 600 Feet from the River. This includes contaminated sites, a commercial store, the City building, Head Start building, the old BIA School (unused), National Guard building, bulk fuel farm and marine fuel header, roads, utilities, and additional home relocations. Given how critical the bulk fuel farm is to the community for electrical power and heating, this infrastructure is included in the long-term response despite being 650 feet from the river's edge (as of June 2019).

Project and environmental information are readily available to complete the first three documents, while additional information is required for the last two documents.

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]**:**

A. A New Environmental Threat: Historically, Akiak faces riverine erosion in the fall when storms with high southwest winds drive waves onto the riverbank. The riverbank may lose up to two to five feet of shoreline in the fall time. In 2012, it has been reported, that up to 40 feet of riverbank along 500 feet of riverfront was lost during one extreme fall storm event. After this 2012 event, the Natural Resources Conservation Services (NRCS - an agency of the US Department of Agriculture) carried out a bathymetric survey of the Kuskokwim River, upriver and downriver from Akiak, and produced an April 2013 report which includes an estimate that a rock revetment project to protect Akiak would cost in excess of $80M.

On May 17, 2019 the Kuskokwim River rose due to annual spring melt, and up to 50 feet of riverbank was lost along 1200 feet of riverfront. Historically, the river does not cause the riverbank to be destabilized during the spring. This has never happened in the memory of any of Akiak's elders. Again, NRCS mobilized and documented their findings in a June 2019 report. During 2019 and into 2020, the community held many meetings and consulted with State and Federal agencies, and stakeholders, to consider how to address this new natural hazard.

B. Community Decisions on Managed Retreat & Other Disaster Resilience Actions: The community made the following general and overarching decisions, which are documented in the 2019 Akiak Hazard Mitigation Plan (HMP).

1. The City of Akiak, the Akiak Native Community, and Kokarmiut Corporation agreed to enter into a tri-party agreement on May 18, 2019 to collectively address this new natural hazard.
2. Akiak will never see $80M for a rock revetment project to address riverine erosion, as estimated in the NRCS 2013 report.
3. The reasonable course of action selected is to retreat to safer ground. Akiak is fortunate that no core community infrastructure is located near the river (i.e. within 200 feet) - only houses and roads and utilities that serve these houses. For 2019 and 2020 the community prioritized the relocation of six homes that are immediately threatened and building a new home for the homeowner of a seventh home that is also threatened, but structurally is unsound for relocation.
4. The community has determined that it must prepare a new housing subdivision for relocating up to 30 homes and other structures that may be threatened due to proximity

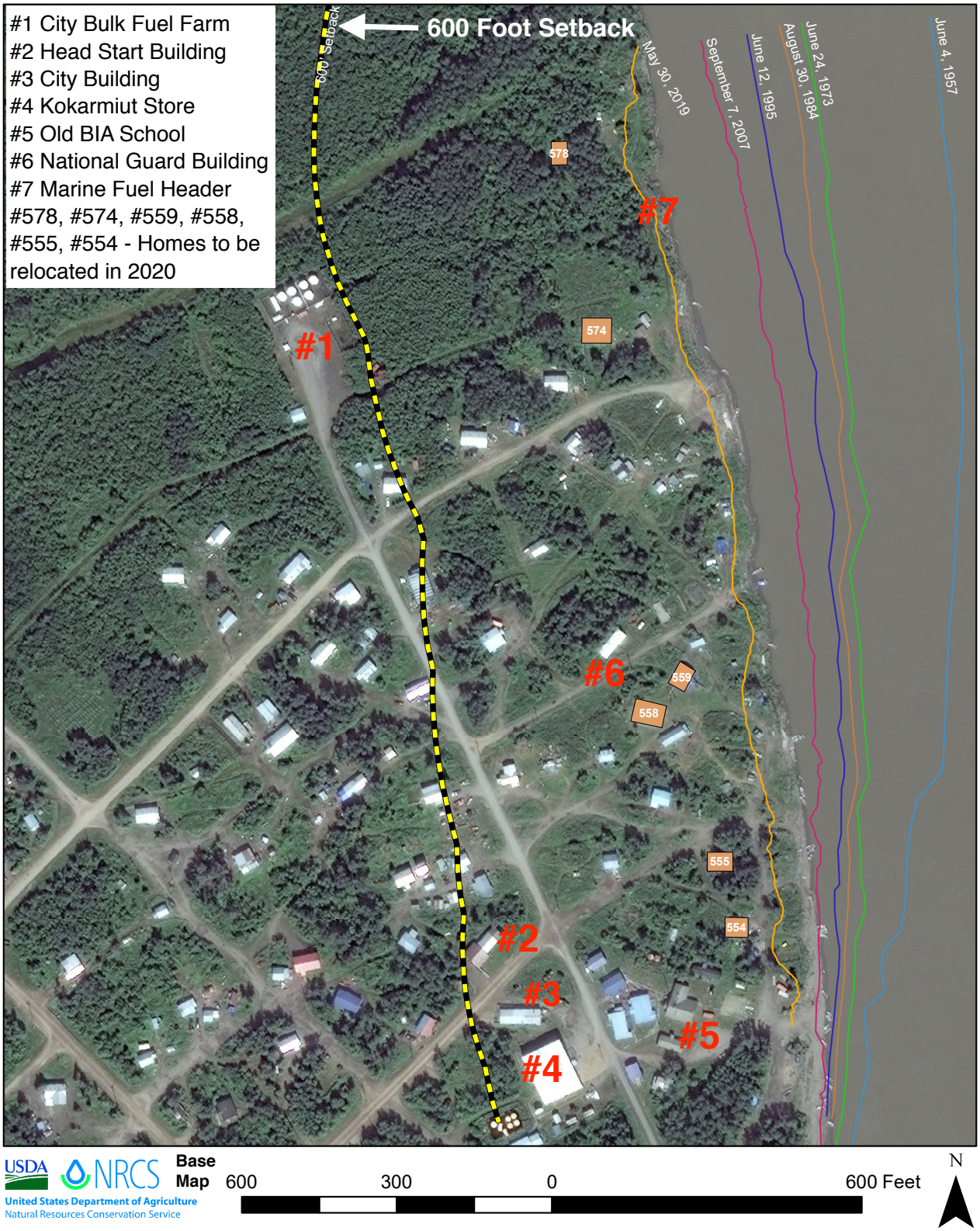
to the river (i.e. within 600 feet from the river). The most likely subdivision site is adjacent to the existing solid waste site and existing honey-bucket lagoon and this proximity raises public health concerns among community members.

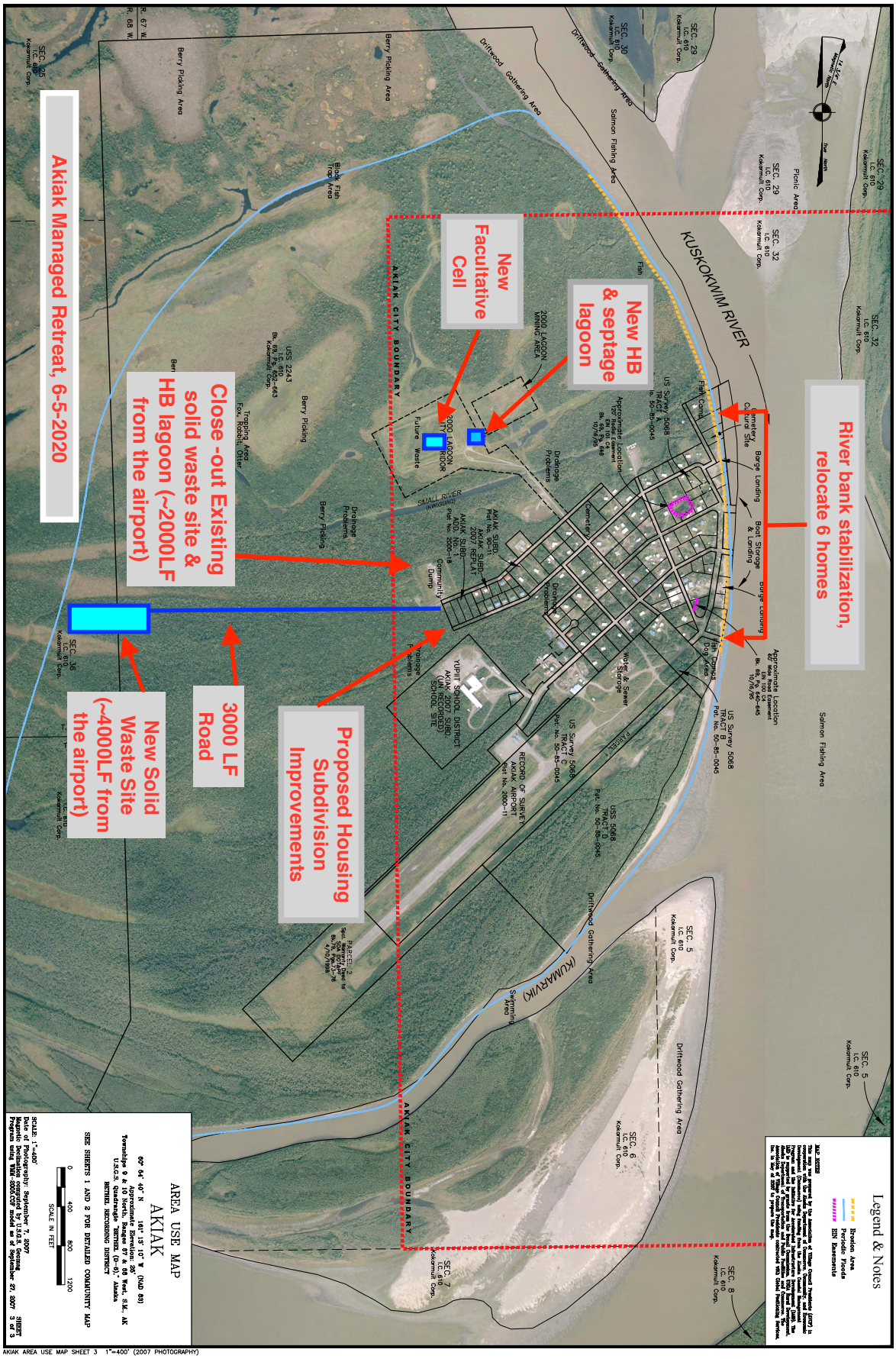
Two aerial site plans define the scope of the proposed Project. The first site plan entitled: "Long Term Response - Infrastructure Within 600 Feet of the "2019 Riverbank"' shows the historic erosion trend and the infrastructure and buildings that are threatened. The second aerial site plan "Akiak Managed Retreat - 6-5-2020" shows Project infrastructure elements that are not within the 600-foot zone at the river's edge. The Project infrastructure elements shown are the preferred alternatives approved by the community and will be discussed more fully in site specific environmental review documents, including alternatives considered.

C. Project Description: The description of the Project is outlined below based upon the envisioned tiered environmental review documents.

1. Short-term Response. The Project elements identified for 2020 and 2021 include:
   a. Relocate six homes, identified by the NRCS as threatened, and disconnect the power, water and sewer services.
   b. Complete vacant lot preparation, placement of six existing homes, and connection to power, water and sewer in the new locations. Vacant lots to be developed will be near utilities and the road system to reduce development costs.
   c. Demolish one home that cannot be relocated and replace it with a new home.
   d. Remove or demolish outbuildings (fish drying sheds, etc.) and assorted debris within 200 feet of the river's edge.
   e. Brush and tree clearing to 200 feet of the river's edge. Tree roots allow for some erosive resistance from the river; however, the trees topple over when the riverbank is undercut and become a river hazard.
   f. Riverbank stabilization including paring back the extreme riverbank from vertical to a minimum 30-degree angle of repose. The recent erosion pattern results in a nearly vertical riverbank face, perpendicular to the river. This may be an annual exercise depending upon the magnitude of future riverine erosion and bank destabilization.
   g. Reclaim buried arctic water and sewer service line piping and sewer mains. The sewer system layout near the river's edge is perpendicular to the river. The sewer piping must be removed so that, when, the river erosion reaches the piping the river does not flood into the community sewer collection system. If possible, the arctic piping, which was installed ten years ago, will be reclaimed and reused.

Long Term Response - Infrastructure Within 600 Feet of "2019 Riverbank"




Akiak Managed Retreat, 6-5-2020
Close -out Existing solid waste site & HB lagoon (~2000LF from the airport)
New Facultative Cell
New HB & septage lagoon
River bank stabilization, relocate 6 homes
3000 LF Road
New Solid Waste Site (~4000LF from the airport)
Proposed Housing Subdivision Improvements
KUSKOKWIM RIVER
AKIAK CITY BOUNDARY
Driftwood Gathering Area
Salmon Fishing Area
Berry Picking Area
Legend & Notes
AREA USE MAP
AKIAK
60° 54' 40" N 161° 13' 10" W (NAD 83)
Approximate Elevation: 28'
Township 9 & 10 North, Ranges 69 & 69 West, S.M., AK
U.S.G.S. Quadrangle "BETHEL (D-5)", Alaska
BETHEL RECORDING DISTRICT
SEE SHEETS 1 AND 2 FOR DETAILED COMMUNITY MAP
SCALE: 1"=400'
Date of Photography: September 7, 2007
Datum: Horizontal Datum for this map is NAD 83, Alaska State Plane Zone 10 (2502) US Survey Feet
Magnetic Declination at Akiak at September 27, 2007 is 19.0° E
Program Used: MAP 2007/09 Build 4 at September 27, 2007
SHEET 3 OF 3
SCALE IN FEET
0 400 800 1200
AKIAK AREA USE MAP SHEET 3 1"=400' (2007 PHOTOGRAPHY)

2. New Housing Subdivision Improvements: Based upon the number of commercial, community and housing structures within 600 feet of the river's edge (as of May 2019) the community determined that a new 30-lot housing subdivision is a necessary managed retreat Project element. Beyond developing a housing subdivision for relocated structures, there is a need for new housing construction to address overcrowding in several existing homes, too. The community identified the following site features and project development goals for selection of a preferred housing subdivision alternative.

a. Expedient and Phased Development. Community members expressed a desire for relocation of the six existing threatened homes immediately, and development of a new housing subdivision as quickly as possible, thereafter.

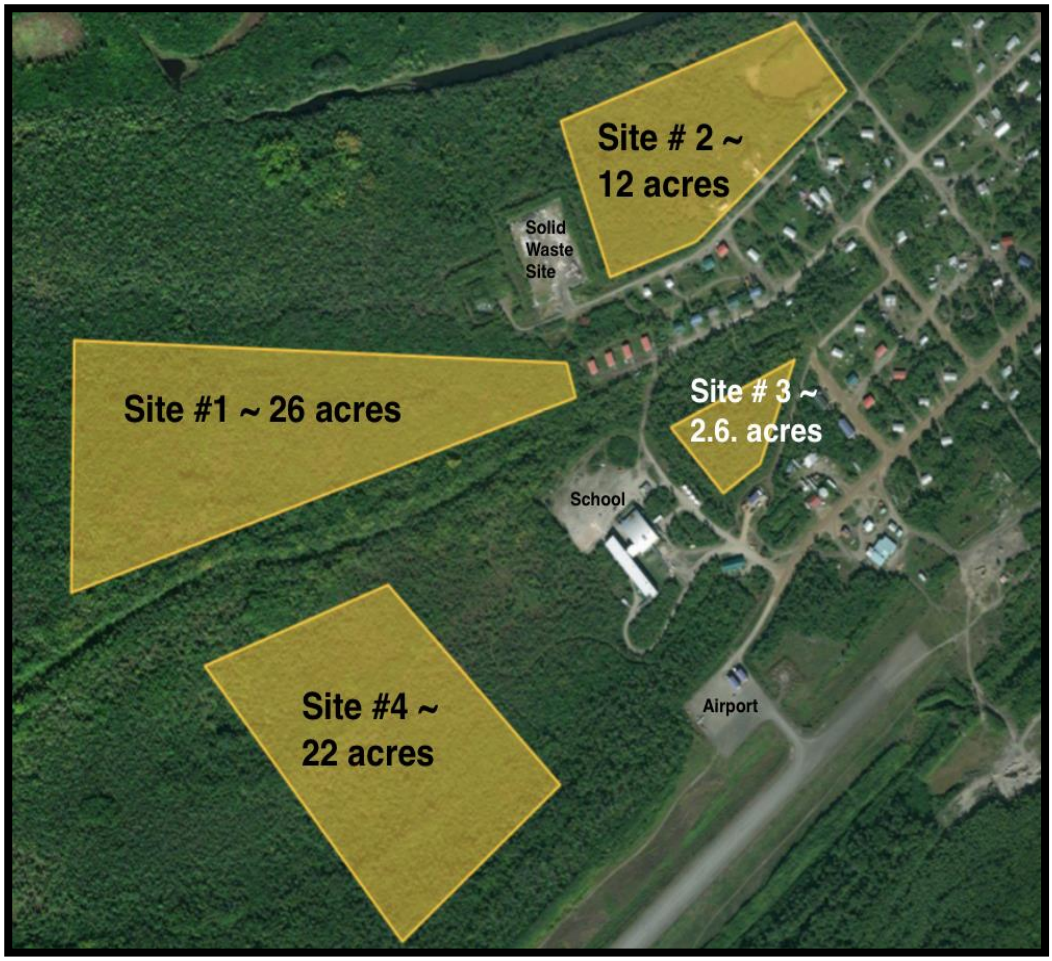
b. Affordability of Construction. Minimizing community infrastructure component cost (i.e. roads, utilities, etc.) was an important factor for the community.

c. Affordability of Operation. Minimizing operations and maintenance costs was an important goal. This includes minimizing fuel and electricity use, reducing road maintenance needs, and reducing labor requirements.

d. Safe Ground from Erosion and Flooding. Periodically, Akiak floods from ice damming during spring break-up, consequently higher elevation is preferred. Likewise, distance from the Kuskokwim River is a factor, if spring time erosion becomes a new normal.

e. Proximity to the Akiak Airport, Solid Waste Site, and Honey Bucket Lagoon. Close proximity to the Akiak Airport could be problematic for noise and other concerns. Proximity to the existing solid waste site and existing honey bucket lagoon raised public health concerns.

Four potential sites for a 30-lot housing subdivision are shown in the figure below. The four housing subdivision sites will be discussed in the site-specific environmental review documents, subsequent to this broad environmental assessment.



However, general features for the four sites follow.

Site 1: This is an extension of the existing "Akiak Subdivision" that has been in development by the Association of Village Council Presidents Housing Authority (AVCPHA). AVCPHA most recently constructed six homes between 2012 and 2016, and over a decade ago built nine homes in the Akiak Subdivision. Community water and sewer serves the older AVCPHA-constructed homes, and the six most recent homes do not have sanitation service. Consequently, extending water and sewer mains will be required to get to the beginning point of the new 30-lot housing subdivision. This is, likewise, the case for overhead power. An existing gravel access road is adjacent to the new housing subdivision. The community is concerned about the proximity to the existing honey bucket lagoon and solid waste site. The land in question is some of the highest ground in the community. Lastly, the site is not near the airport.

Site 2: Water, sewer, and power utilities and roads are adjacent to this site. The community is concerned about the proximity to the existing honey bucket lagoon and solid waste site. The land in question is lower in elevation than Site #1. Lastly, the site is not near the airport.

Site 3: This site is surrounded by water, sewer, and power utilities and roads. The site is insufficient for 30 homes and other structures. However, the site is adjacent to the clinic, the school, school bulk fuel tank farm, the power plant, the post office and water treatment plant. The site is identified as a possible site for relocating non-residential structures.

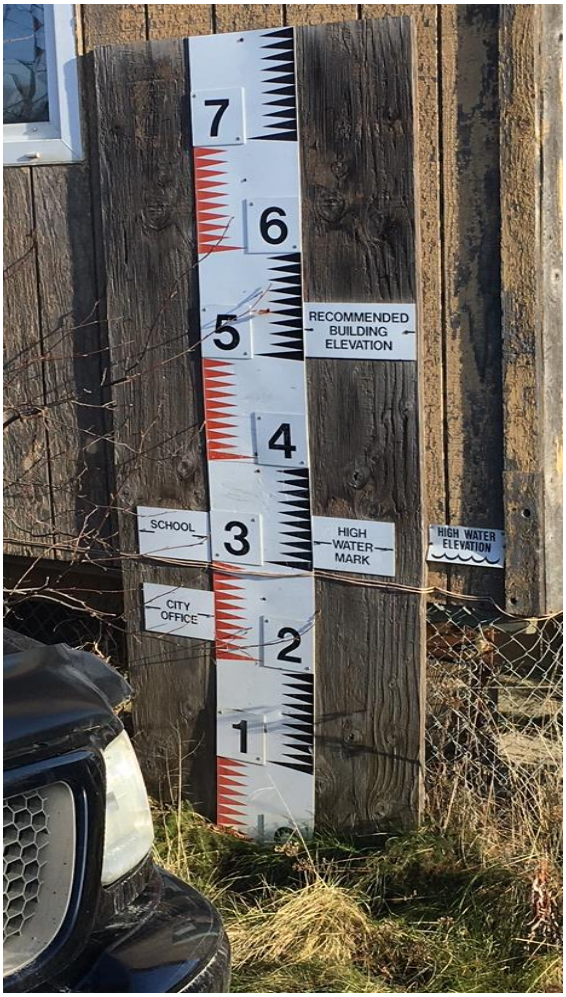
Site 4: This site is the nearest to the airport and the furthest from the existing honey bucket lagoon and solid waste site. The site, as shown, abuts to the western edge of the school property. Of the four alternatives, this site would require significant extension of roads, water, sewer and power. The site is high in elevation like Site #1.

3. Solid Waste Site, Honey-bucket Lagoon, and Sewage Lagoon Improvements. The existing solid waste site and honey bucket lagoon were both completed in 1991. The existing sewage lagoon was completed in 2009.

The honey bucket lagoon was designed to serve as a septage disposal site for septic tank sludge. In the early 1980's the US Public Health Service installed individual septic tank / drainfield systems, and some of these reportedly failed. All residential septic tank / drainfield systems were replaced with a piped community sewage collection system (2005 to 2009). While the septage disposal site is no longer needed, short of the tribal building which is served by a septic tank / drainfield system, it is being used as a honey-bucket lagoon for up to eight homes that are not currently served with piped water and sewer service. It is reported that in the summer months the honey bucket lagoon can emanate some strong odors.

The solid waste site is permitted by the Alaska Department of Environmental Conservation. It is near capacity. A burn box is on site and periodically the tribe burns combustible trash with smoke emanating, too.

In the development of a proposed new solid waste site and honey bucket lagoon both the Yukon-Kuskokwim Health Corporation - Office of Environmental Health and the Alaska Department of Environmental Conservation - Solid Waste Program encouraged the separation of solid waste sites from honey bucket lagoons as a best management practice (i.e. avoidance of co-mingling of waste streams). Accordingly, the community prioritized a new solid waste site approximately 3000 feet west from the current site, and a new honey bucket lagoon adjacent to the existing sewage lagoon. Presently, the community is working with the Federal Aviation Administration (FAA) for agency approval of a new solid waste site. FAA requires completion of a wildlife assessment that addresses the impact to civil aviation into and out of the Akiak airport from the proposed solid waste site. The wildlife assessment will be completed in 2020 while migratory birds are in residence in Akiak.



Most of the land in and around Akiak is in a floodplain based upon the flood of record, the 1964 ice-jam flood, which reached an elevation of 35.2 ft (mean sea level [MSL]). There are aspects of the Project that may impact wetlands. The impact to floodplains and wetlands, chiefly with the solid waste site, honey bucket lagoon and sewage lagoon improvements, will be further addressed in subsequent environmental review documents.

During review of the proposed honey bucket lagoon site in August 2019 (adjacent to the existing sewage lagoon) a seep of sewage lagoon effluent was discovered outside the earthen lagoon dike covering an area of approximately 50 feet by 150 feet. The primary lagoon cell stores up to 250,000 gallons of sewage effluent up to six to eight feet above ground surface. No obvious leaks through the earthen lagoon dike wall were found. The cause for the sewage lagoon seep must be found so solutions can be identified. The lagoon dike wall is approximately 450 feet in length, and it is not apparent why sewage effluent is only found along 150 feet of the northeast site of the lagoon. Also, a portion of the lagoon fencing has been knocked down and requires repair.

Project elements for abandoning the existing solid waste site and honey bucket lagoon and completing existing sewage lagoon repairs include:

a. Close out of the existing honey bucket lagoon including clearing the site of overgrown trees, removal of fencing and covering the lagoon with soil two feet above ground level.
b. Construction of a new honey bucket lagoon / septage disposal site adjacent to the existing sewage lagoon.
c. Close out of the existing solid waste site including debris clean-up, removal of fencing and two feet of soil covering above ground level.
d. Construct a new solid waste site and 3000 feet of access road.
e. Address and repair the sewage effluent seep in the existing sewage lagoon.
f. Repair existing sewage lagoon fencing.

4. Long-Term Response. Much of the long-term response addresses infrastructure between 200 and 600 feet from the river's edge as of 2019. However, there are

additional infrastructure disaster resilience needs and community public health and safety needs.

Project elements for long-term response include:

a. Relocation or demolishing the following standing structures: Old BIA school and school generator building, community store, City building, Head Start building, National Guard building, community bulk fuel farm and marine fuel header, and up to 15 existing homes.

b. Mitigating four existing contaminated sites near the river. Ostensibly, this would be as cost effective as possible, and may include cleaning tanks, piping and other physical plant and placing in the local landfill and excavating and land farming contaminated soils.

c. The existing clinic, built approximately in 2005, reportedly, no longer has a functioning standby generator.

d. Three homes have been identified through a 2016 site visit by the Alaska Division of Homeland Security and Emergency Management (A-DHS&EM) staff for elevation to be above the historic flood levels.

e. There is one owner built home just north of the cemetery, and on the road to the existing sewage lagoon, that is not served with sanitation.

f. Topographic review of existing sewage lift stations, and the placement of electrical components two feet above the 1964 flood stage is recommended.

g. Excavate and reclaim water main (Loop#1) and sewer main as needed away from the river's edge.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:

Akiak is facing a new environmental threat that has caused anxiety and community-wide concern for the safety of community members and specific families living in homes near the river. The development of a new housing subdivision, as a central part of the Akiak Home Relocation and Managed Retreat project, addresses in part overcrowding (which the community reports is common in a number of households) but also provides a safe location to relocate threatened infrastructure.

At present, a minimum of seven homeowners must relocate within the next two years.

Other elements of the proposed project will protect community members from an unsafe riverbank and will upgrade existing community infrastructure to meet the needs of a 30-housing unit subdivision including power, sanitation, and road improvements.

Development of a new solid waste site and honey bucket lagoon, which are incompatible for the 30-housing unit subdivision, will allow for homeowners to retreat to a safe area - not only free from erosion, but also, public health vectors associated with human and refuse waste streams.

Existing Conditions and Trends [24 CFR 58.40(a)]:

The proposed 30-housing unit subdivision is undeveloped land. The proposed new solid waste site and access road is undeveloped land. The proposed new honey bucket lagoon is adjacent to the existing sewage lagoon. A significant portion of the proposed water, sewer and power distribution improvements will be near existing housing and roads. Sewage lagoon refurbishment will not impact undeveloped land.

Most of the land to be developed is either owned by ANC or Kokarmiut Corporation. Both are committed to making this land available for the Akiak Home Relocation and Managed Retreat project.

Notwithstanding the recently developed need for a 30-lot subdivision, Akiak was already on a path to continue housing development to the west of Dummocks Street as documented by the 2018 Akiak Sanitation Preliminary Engineering Report carried out by the Alaska Native Tribal Health Consortium for sanitation development west of the existing Akiak Subdivision. What is new is the need for upsizing the housing subdivision size to 30 homes and structures if the erosion that occurred in 2019 is the new normal for Akiak.

Funding Information

Grant Number	HUD Program (or other source)	Funding Amount	Status
FR-6200-N-23	Community Development Block Grant Program for Indian Tribes and Alaska Native Villages (This EA is written for this grant application)	$449,697	Requested November 2019
Alaska VSW funding	Infrastructure Protection Funding (for disconnecting water and sewer services to 6 homes and a portion of two sewer mains)	$68,159	Approved
NRCS	Emergency Watershed Protection (EWP) Program (for relocation of 6 homes)	$134,831	Approved
HUD - ICDBG FR-6200-N-23	Community Development Block Grant Program for Indian Tribes and Alaska Native Villages (for sanitation improvements to six HUD funded homes on Dummocks Street)	$800,000	Requested in February 2020
DOD - IRT	DOD Innovative Readiness Training program (for manpower support for civil earthwork projects)	Estimated value - up to $1M	Requested in September 2019
Alaska Division of Homeland Security	Pre-disaster Mitigation Program (for sanitation, and power extension and other ancillary infrastructure needs for moving 5 of the 6 homes, noted above).	$393,628	Requested in January 2020

Grant Number	HUD Program (or other source)	Funding Amount	Status
Alaska Division of Homeland Security	Hazard Mitigation Grant Program (for "advanced assistance" with pre-construction tasks for the proposed subdivision)	$200,000	Requested in December 2019
A-DCCED	Alaska CDBG program (for pre-construction tasks with the managed retreat efforts)	$194,250	Requested in December 2019
BIA-Housing Improvement Program	For a new home for the seventh homeowner living within 200 feet of the river, and whose home is structurally unsound for moving.	To be identified by the agency	Requested in December 2019
BIA - Tribal Resilience	Pre-construction activities for managed retreat project elements	$149,815	Requested in March 2020
HUD - ICDBG CARES	Community Development Block Grant Program for Indian Tribes and Alaska Native Villages (for two quarantine homes)	$900,000	Requested in June 2020
IHS/USDA-Rural Development/EPA/VSW	Akiak Scattered Site sanitation funding for the six homes to be relocated and the seventh existing home that is not connected to sanitation service.	$711,369	Requested in April 2020
USDA - Housing Preservation	Electrical service connection and foundation improvements for the six homes to be relocated	$50,000	May 2020
ANTHC	Sanitation improvements for the new housing subdivision. This funding request in 2020 is being managed by ANTHC and not the tribe.	$1.4M	Pending
CARES Act Tribal funding	The tribe is considering using some of its 2020 CARES Act funding for quarantine housing.	Not yet identified	Pending

Estimated Total HUD Funded Amount: $449,697 for the HUD-IT application, $800,000 for the HUD-ICDBG application, and $900,000 for the HUD-ICDBG-CARES application for a total of $2,149,697.

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]**: $6.5M**

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes	Two issues are of potential concern - first, the alternative housing site (i.e. Site 4) next to the airport and school. The second matter is that the proposed solid waste site is less than 5000 feet from the airport (less than Federal Aviation Administration [FAA] regulations). FAA has provided tentative approval for development of a new solid waste site but has required that a wildlife assessment be completed to determine if mitigation is in order. It has been agreed that the tribe must carry out the wildlife assessment in the summertime when migratory birds arrive on site. This assessment will be scheduled for the summer of 2020, and afterwards the tribe will consult with FAA on whether mitigation measures are in order. See FAA correspondence dated January 16, 2020. It is noted that the current solid waste site is approximately 2000 feet from the airport and the proposed new solid waste site is 4000 feet from the airport.
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	No	Alaska is not one of the States that are part of the Act.
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	No	Akiak does not participate in the National Flood Insurance Program (NFIP). From the Federal Emergency Management Administration website, for Akiak, Alaska: "*FEMA has not completed a study to determine flood hazard for the selected location; therefore, a flood map has not been published at this time*." Consequently, Akiak is not in a Special Flood Hazard Area as identified by FEMA.

STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5		
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	No	Consultation with Mr. Adeyemi Alimi (Yemi) State of Alaska, Department of Environmental Conservation, Air Quality Division. June 4, 2020. Akiak is not in an attainment or maintenance area.
Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)	No	Alaska does not participate in this Act.
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes	A Phase 1 Environmental Site Assessment report is required for abandoning the existing solid waste site and four contaminated sites, but all other work is not affected by this requirement. See site map below of reported contaminated sites.

Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	No	From the US Fish and Wildlife website it reports that there are no migratory birds of conservation concern or endangered species in Akiak. This was confirmed via phone call with Douglass Cooper on June 4, 2020.
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C	No	The distance to Sites 1 and 3 were used as the benchmark for separation distance to the closest site for flammable hazards (i.e. the schools bulk fuel tanks). See attached HUD Acceptable Separation Distance Assessment Tool which shows that 245 feet is the separation for people and 45 feet from buildings. All work associated with the managed retreat efforts are greater than 245 feet from the school's bulk fuel farm. 
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	No	There are no farms or farmland in Akiak.
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Yes	Most of Akiak is subject to extreme 50-year flooding events so infrastructure must be built to address the known high-water event from 1964. The managed retreat Project efforts will not impact natural drainages and the floodplain, as the source of flooding comes from downstream ice jamming and not from upstream high-water events. Definition of wetlands and potential impact to wetlands will be required for the new solid waste site, access road and new honey bucket lagoon.
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	No	See NRCS 9/26/2019 letter to Alaska State Historic Preservation Office that confirms there are no known historic sites in Akiak.

Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	No	Akiak is not within 1000 feet of a major roadway, 3,000 feet of a railroad, or 15 miles of a military or FAA-regulated civil airfield.
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	No	Akiak is not over a sole source aquifer.
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes	As with the matter on Floodplain Management, the Project elements of a new solid waste site and access road and a new honey bucket lagoon will require wetlands definition and an analysis of potential impacts. All other Project elements are not affected by this requirement.
Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	No	The Kuskokwim River is not listed as a Wild and Scenic River.
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	No	Most of the residents of Akiak are low-income Alaska Natives. All the seven homeowners facing relocation in 2020 are Alaska Natives, and they are being relocated due to natural events as opposed to community project needs.

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.

(1) Minor beneficial impact

(2) No impact anticipated
(3) Minor Adverse Impact – May require mitigation
(4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	3	Relocating and building new housing adjacent to the existing solid waste site and honey bucket lagoon and/or adjacent to the Akiak airport will lead to incompatible land use. Consequently, community residents desire relocating the existing solid waste site and honey bucket lagoon away from the community to mitigate their public health concerns. The tribe has incorporated managed retreat objectives in both the 2020 update to its Long-Range Transportation Plan and the aforementioned 2019 Hazard Mitigation Plan.
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	3	The soils in Akiak are generally silty sands which do not offer much structural strength against riverine erosion. Furthermore, as the riverbank is destabilized the result is often a vertical riverbank which is unsafe to residents. Stabilizing the riverbank will be an important managed retreat objective to protect residents from falling in the river in the event there is a bank failure. Photo below was taken on May 30, 2019 and shows the vertical banks which were common throughout the summer of 2019.

Hazards and Nuisances including Site Safety and Noise	2	As with all construction projects the tribe must be mindful of site safety for residents moving construction equipment.
Energy Consumption	2	Demand for electrical power or heating fuel is expected as a result of the managed retreat objectives.

SOCIOECONOMIC		
Employment and Income Patterns	1	Construction projects will result in short term jobs in the community.
Demographic Character Changes, Displacement	3	At least seven families will be impacted and will have to relocate their homes. While their homes are being relocated, these families will be displaced and living in the tribe's village protection safety officer housing until they can occupy their relocated home.

COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	3	The old BIA school, approximately 250 feet from the river's edge, must be tested for asbestos, lead paint and other hazards common from construction projects in the 1940's. It is unknown whether the owner of the school (reportedly, the Yupiit School District) is interested in relocating the building or demolishing it. 

Commercial Facilities	3	The commercial store is within the 600-foot area of concern for the community and may require relocation in the future. Although the community bulk fuel tank farm is 650 feet from the river's edge, the community has concerns about the threat to the farm, based upon the importance of diesel fuel for power generation and heating. 
Health Care and Social Services	3	The Head Start Building is within the area of concern for the community and may require relocation in the future. 
Waste Water / Sanitary Sewers	3	Presently there is a sewage effluent seep from the primary cell of the existing sewage lagoon which must be addressed. Community members ride 4-wheelers past the seep to pick berries. In addition, the existing honey bucket lagoon location adjacent to proposed relocated homes and new housing raises public health concerns with community members.

Solid Waste Disposal / Recycling	3, maybe 4	Included in this response is both the existing solid waste site and four sites listed as contaminated by the State of Alaska. Additional environmental site review is required. The goal for mitigating the contaminated sites will be to reduce the quantity of material that must be shipped outside to an approved land fill. This will require cleaning abandoned bulk fuel tanks and piping and then placement in the local landfill. Local landfarming of contaminated soils will be explored. Landfarming is an *ex situ* remediation technique used for the biological treatment of soil contaminated with petroleum hydrocarbons and/or non-volatile organic compounds. The magnitude of the impact from appropriately abandoning the existing solid waste site and the four contaminated sites will not be known until further site investigations are carried out.
Water Supply	2	No work is anticipated near the community groundwater wells.
Public Safety - Police, Fire and Emergency Medical	3	Mitigation is recommended to pare back the riverbank slopes from a vertical face to a 30-degree angle of repose. Otherwise, there are no other public safety concerns associated with the managed retreat tasks.
Parks, Open Space and Recreation	3	No parks or open spaces are near the river's edge except for a wooden deck basketball court by the old BIA school.
Transportation and Accessibility	3	While moving houses there will be minor impact to traffic patterns.

NATURAL FEATURES		
Unique Natural Features, Water Resources	3, maybe 4	If no action is taken to mitigate the four contaminated sites, toxins in the contaminated soils will be washed downstream. The magnitude of this potential river contamination is small compared to the volume of water in the Kuskokwim River, nonetheless a solution to mitigate this potential contamination will be explored by the tribe.
Vegetation, Wildlife	3	Some virgin lands will be disrupted with the installation of a new solid waste site and access road. Otherwise, little impact to wildlife and vegetation is anticipated.

Other Factors	3	This broad environmental assessment is drafted during a time of the COVID-19 pandemic. The timing of carrying out construction work in Akiak and ensuring the safety of the community is made more complicated by the pandemic.

Additional Studies Performed:

2020 Long Range Transportation Plan (incorporating managed retreat objectives)
2019 Akiak Hazard Mitigation Plan
2019 NRCS Environmental Evaluation for Akiak Emergency Watershed Protection (enclosed)
2011 Western Federal Lands Highway Division Categorical Exclusion for Akiak Roads Rehabilitation Project (enclosed)
2003 Indian Health Service Environmental Assessment for Akiak Sanitation Facilities (enclosed)

Field Inspection (Date and completed by)**:**

Joel Neimeyer, P.E. (May, July, August, October, November 2019 and March 2020). Mr. Neimeyer is a licensed civil engineer in the State of Alaska and is a consultant to the Akiak Native Community.
Jeff Oatley and Ryan Maroney (May 30, 2019) with NRCS.
Rick Dembroski, and Richard Hildreth (October 22, 2019) with Alaska Division of Homeland Security and Emergency Management
Brent Hove (January 15, 2020) with Alaska Native Tribal Health Consortium

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]**:**

LaVonne Garvey, US Department of Housing and Urban Development (HUD)
Andy Concepcion, HUD
Hilary Atkin, HUD
Leigh Hubbard, Indian Health Service (IHS), Alaska Area Native Health Service
Christopher Fehrman, IHS
Robert Chambers, US Department of Agriculture (USDA) - Rural Development - Alaska
Tim Krug, USDA
Misty Hull, USDA
Dennis Wagner, Environmental Protection Agency
Robert van Haastert, Federal Aviation Administration, Alaska Region
Venus Rivera Larson, PE, FAA Alaska Region
Marc W. Pratt, USDA - APHIS Wildlife Services
Reuben Johnson, Federal Highways Administration - Western Federal Lands Highway Division
Thomas Llanos, Bureau of Indian Affairs - Branch of Transportation
Stuart Hartford, Bureau of Indian Affairs - Branch of Transportation
Doug Poage, Alaska Village Safe Water Program (VSW)

Marlena Brewer, VSW
Carrie Bohan, VSW
David Lockard, Alaska Energy Authority (AEA)
Melinna Faw, Alaska Department of Environmental Conservation - Solid Waste Program
Rebecca Colvin, Alaska Department of Environmental Conservation - Solid Waste Program
Grant Lidren, Alaska Department of Environmental Conservation - Contaminated Sites Program
Robert White, Yukon-Kuskokwim Health Corporation - Office of Environmental Health
Brian Lefferts, Yukon-Kuskokwim Health Corporation - Office of Environmental Health
Brent Hove, Alaska Native Tribal Health Consortium

List of Permits Obtained:

None to date
Anticipated:

1. Permit to Construct from Alaska Department of Environmental Conservation for Water and Sewer Main Improvements
2. US Army Corps of Engineers Section 404 permit
3. Alaska Department of Environmental Conservation - Class III Community Landfill Permit Application
4. Federal Aviation Administration Aeronautical Review

Public Outreach [24 CFR 50.23 & 58.43]**:**

Anchorage Meeting, July 23, 2019 on the Akiak Managed Retreat Project
Akiak Public Meetings with Agency representatives: May 30, 2019 with NRCS staff, October 22, 2019 with A-DHS&EM staff; January 15, 2020 with ANTHC staff.
Akiak HMP Meetings: June 10, 2019 and July 29, 2019 with the Tribe's HMP consultant (LeMay Engineering)
Akiak Public Meetings: August 30, 2019 and March 5, 2020

Cumulative Impact Analysis [24 CFR 58.32]**:** The Project is a multi-year effort and is best described as a geographic aggregation of dissimilar but related activities as part of managed retreat tasks. One complicating factor in reviewing cumulative impacts is the tribe does not know when, or if, the funding requests identified in the Funding Information section in this document will become available. If all necessary managed retreat project funding was available, the following is the priority managed retreat tasks.

2020: relocate six homes, connect the relocated homes to utilities in the new location, riverbank stabilization, construct new homes for COVID-19 quarantine purposes and housing shortage, preliminary housing subdivision development (i.e. power and pioneer roads)

2021: final housing subdivision development including water and sewer main extensions and finished roads, construct new homes to address housing shortage, riverbank stabilization, abandon existing honey bucket lagoon, build a new honey bucket lagoon, repair the existing sewage lagoon and build new solid waste site and access road.

Confirm the magnitude of mitigation required for contaminated sites and start partial close-out of the existing solid waste site.

2022: relocation of existing homes and structures as needed, riverbank stabilization, land farming of contaminated soil at the existing solid waste site. Clean contaminated tankage and place in landfill.

2023: relocation of existing homes and structures as needed, riverbank stabilization, and final close-out of existing solid waste site and final mitigation of contaminated sites.

2024: relocation of existing homes and structures as needed, and riverbank stabilization.

In general, much of the proposed managed retreat tasks are on land that has already been disturbed, short of the virgin ground for the proposed new solid waste site and access road and the new housing subdivision. Otherwise, there are two primary mitigation concerns with the Project managed retreat tasks. The first is to mitigate the impact to the community members on several construction project activities. The second is to mitigate impact to the Kuskokwim River by timely removing built infrastructure from the river's edge prior the river claiming additional riverbank.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]

The driving decision in developing the Project objectives is the determination by the community (including the governing bodies for the tribe, the city and the village corporation) that pursuing a rock revetment project to contain the erosive impacts of the Kuskokwim River was not a viable solution due to the high project cost. Consequently, there are three remaining alternatives available to the community: managed retreat away from the Kuskokwim River, relocate to another village, do nothing. The community voted on a managed retreat solution. Akiak has been in its present location for 140 years and the community does not want to relocate to another community. The tribal members wish to remain in their historic hunting and fishing grounds. Akiak is already facing housing shortages and the no action alternative will lead to greater crowding in remaining homes when the river claims more riverbank.

Within the managed retreat solution there are alternatives for specific Project tasks, and these will be discussed in greater detail in the tiered site-specific environmental review documents.

No Action Alternative [24 CFR 58.40(e)]:

As discussed above, the no action alternative will lead to greater overcrowding in remaining homes. It will also lead to contamination of the Kuskokwim River from contaminated soils. With no action on stabilizing the riverbank, community members are less safe from the greater prospect of falling into the river.

Summary of Findings and Conclusions: Please see the Finding of No Significant Impact for a summary of findings and conclusions.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure

Note: the mitigation measures required under 40 CFR 1505.2(c) will be discussed in more depth in the site-specific environmental review documents for the Project.

Determination:

Finding of No Significant Impact [24 CFR 58.40(g)(1); 40 CFR 1508.27]
The project will not result in a significant impact on the quality of the human environment.

From 24 CFR 58.15 Tiering: "The Finding of No Significant Impact (FONSI) with respect to the broader assessment shall include a summary of the assessment and identify the significant issues to be considered in site specific reviews".

Summary of Broad Environmental Assessment:

1. The Project is a direct result of a new environmental threat from extreme riverine erosion / bank destabilization during the spring melt and high river levels. Until May 2019 Akiak has never witnessed the river claiming riverbank in the spring time. The community has decided upon a managed retreat solution.

2. The Akiak Home Relocation and Managed Retreat Project includes many project elements, of which most are on already disturbed ground. While there is virgin ground associated with the construction of a new solid waste site and access road and a new housing subdivision, most of the project mitigation measures are to limit impact on community members and the Kuskokwim River.

3. One primary Project goal is to limit the river from claiming existing infrastructure. To accomplish this goal the built infrastructure must be relocated or demolished and removed.

4. The Project is a geographic aggregation of a mix of dissimilar but related activities. Furthermore, the dissimilar activities, and the knowledge and current understanding of these activities, does not lend to description in one NEPA document. Additional information is required (solid waste and contaminated sites, in particular), and therefore the tribe will be working to gather necessary data to complete the envisioned tiered environmental review documents.

Significant Issues to be Considered in Site Specific Reviews:

1. The tribe must complete a wildlife assessment while migratory birds are in residence and provide the report to the Federal Aviation Administration to complete the Aeronautical Review (i.e. approval of the new solid waste site with, or without, mitigating measures).

2. Further site review is required for the proposed new solid waste site including the 3000-foot access road, and the new housing subdivision regarding questions pertaining to floodplain, wetlands and wildlife and vegetation.

3. Each site specific environmental review document will include a listing of mitigating measures and conditions (40 CFR 1505.2(c)).

4. Further site evaluation is required for the four contaminated sites to develop a cost effective mitigation plan. This likely will include a Phase I Environmental Site Assessment and additional testing.

5. The Tribe will consult with the community and subject matter experts on where best to carry out contaminated soils land farming including the existing solid waste site.

6. The reason for the sewage effluent seep in the existing sewage lagoon must be identified.

7. Further investigation on the old BIA school to determine if asbestos insulation, leaded paint and other harmful materials are present. Prepare a relocation or demolition plan accordingly.

Preparer Signature: _____ Date: 6/18/2020

Joel Neimeyer, P.E., Consultant for the Akiak Native Community

Certifying Officer Signature: _____ Date: 6/18/2020

Michael P. Williams, Sr., Akiak Tribal Chief

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

Attachments:

1. Federal Aviation Administration Correspondence Dated January 16, 2020 relating to Aeronautical Review
2. HUD Acceptable Separation Distance Assessment Tool
3. NRCS September 26, 2019 Correspondence with the Alaska State Historic Preservation Office
4. 2019 NRCS Environmental Evaluation for Akiak Emergency Watershed Protection
5. 2011 Western Federal Lands Highway Division Categorical Exclusion for Akiak Roads Rehabilitation Project
6. 2003 Indian Health Service Environmental Assessment for Akiak Sanitation Facilities

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2019-AAL-328-OE

Issued Date: 01/16/2020

Sheila Carl
Akiak Native Community
PO Box 52127
Akiak, AK 99552

**** FEASIBILITY REPORT ****

The Federal Aviation Administration has conducted a limited aeronautical review concerning the feasibility of a structure described as follows:

Structure:	Landfill New Akiak Solid Waste Site
Location:	Akiak, AK
Latitude:	60-54-32.90N NAD 83
Longitude:	161-14-56.82W
Heights:	32 feet site elevation (SE)
	40 feet above ground level (AGL)
	72 feet above mean sea level (AMSL)

The results of this review can be found on the attached page(s).

NOTE: THE RESULTS OF OUR LIMITED REVIEW IS NOT AN OFFICIAL DETERMINATION OF FINDINGS BUT ONLY A REPORT BASED ON THE GENERAL OR ESTIMATED INFORMATION SUPPLIED FOR THE STRUCTURE. ANY FUTURE, OFFICIAL AERONAUTICAL STUDY MAY REVEAL DIFFERENT RESULTS.

If we can be of further assistance, please contact our office at (907) 271-5863, or robert.van.haastert@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2019-AAL-328-OE.

Signature Control No: 424015686-428044905 (FSB)
Robert van Haastert
Supervisor

Attachment(s)
Additional Information
Map(s)

AERONAUTICAL STUDY NO. 2019-AAL-328-OE

Abbreviations

AGL - above ground level	MSL - mean sea level	RWY - runway
IFR - instrument flight rules	VFR - visual flight rules	nm - nautical mile

Part 77 - Title 14 CFR Part 77, Safe, Efficient Use and Preservation of the Navigable Airspace

FEASIBILITY STUDY

This informal feasibility report was based on the data submitted by the sponsor. This is not a formal FAA Determination but only a report based on the information furnished this office.

1. LOCATION OF PROPOSED CONSTRUCTION

This feasibility study evaluated 40 AGL/72 MSL proposed landfill which would be located approximately 3,989 feet northwest of the RWY 03 threshold at Akiak (AKI) Airport, AK.. The AKI elevation: 39 MSL.

2. OBSTRUCTION STANDARDS EXCEEDED

The proposed structure does not exceed any Part 77 standards.

3. EFFECT ON AERONAUTICAL OPERATIONS

a. The impact on arrival, departure, and en route procedures for aircraft operating under VFR follows: preliminary findings

Initial FAA Findings

There are no effects on any existing or proposed arrival, departure, or en route IFR operations or procedures.
There are no effects on any existing or proposed arrival, departure, or en route VFR operations.
There are no effects on any existing or proposed arrival, departure, or en route IFR/VFR minimum flight altitudes.
This structure would not exceed the traffic pattern airspace.
There are no physical or electromagnetic effects on the operation of air navigation and communications facilities.
There are no effects on any airspace and routes used by the military.

The AKI Airport Master Record (5010) can be viewed/downloaded at https://adip.faa.gov/agis/public/#/airportData/AKI. The 5010 document states there are no aircraft based there with 1,000 total operations for the 12 months ending 31 December 2016 (latest information).

b. The impact on arrival, departure, and en route procedures for aircraft operating under IFR follows: None. The RNAV (GPS) RWY 03, RNAV (GPS) RWY 17, RNAV (GPS) RWY 21, and RNAV (GPS) RWY 35 arrival and departure procedures are not impacted.

c. The impact on all planned public-use airports and aeronautical facilities follows: None.

d. The cumulative impact resulting from the proposed construction or alteration of a structure when combined with the impact of other existing or proposed structures follows: None. FAA Technical Operations and Spectrum Management did not report any adverse findings.

The Alaskan Region Airports Division has identified the need for a wildlife assessment to be accomplished for this proposal in accordance with 40 CFR 258 section 258.10.

(a) Owners or operators of new Municipal Solid Waste Land Fill (MSWLF) units, existing MSWLF units, and lateral expansions that are located within 10,000 feet (3,048 meters) of any airport runway end used by turbojet aircraft or within 5,000 feet (1,524 meters) of any airport runway end used by only piston-type aircraft must demonstrate that the units are designed and operated so that the MSWLF unit does not pose a bird hazard to aircraft.

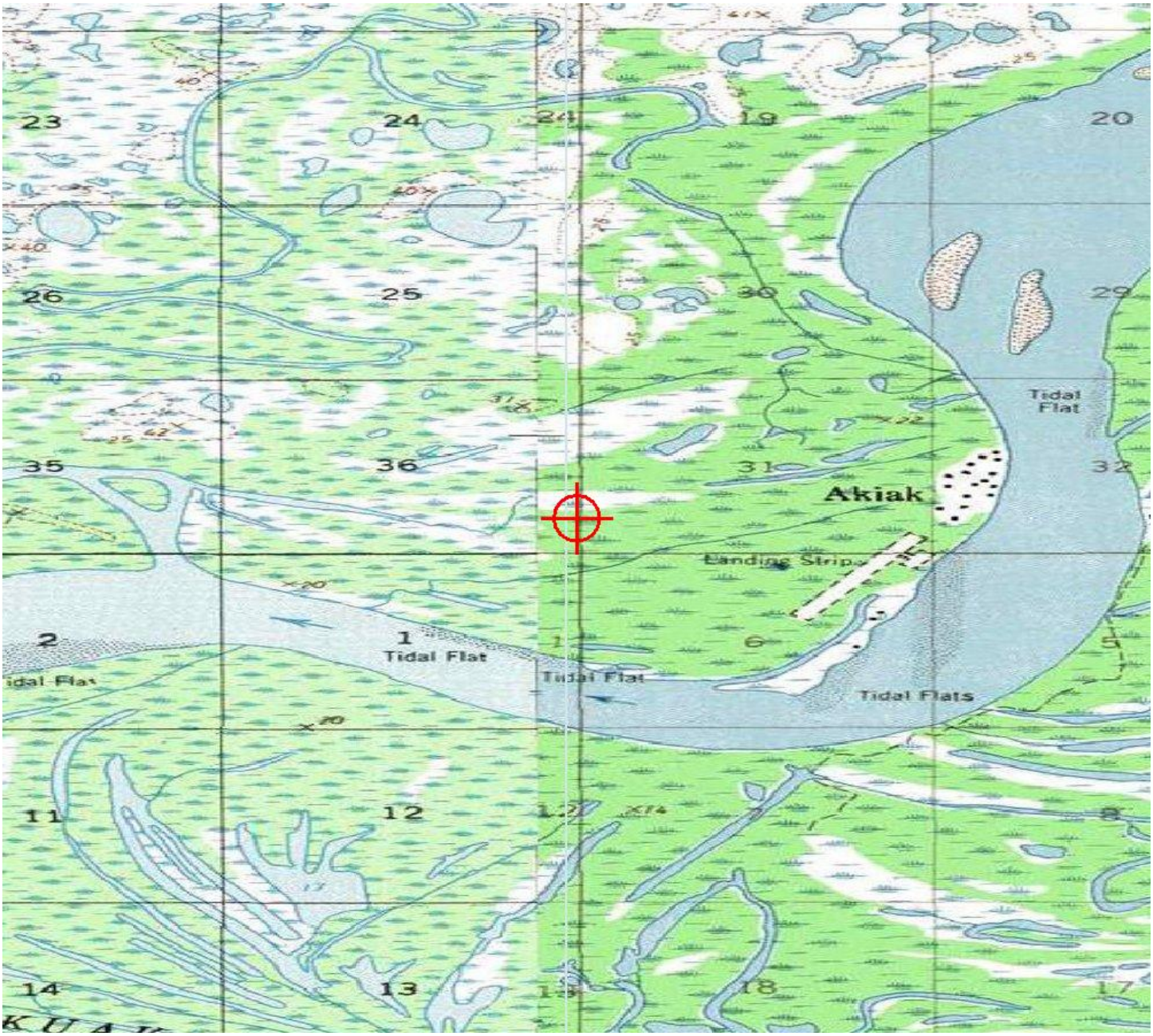
When the services of a wildlife damage management biologist are required, the FAA recommends that landuse developers contact a consultant specializing in wildlife damage management or the appropriate USDA state director of Wildlife Services.

The contact for USDA contact for the State of Alaska:

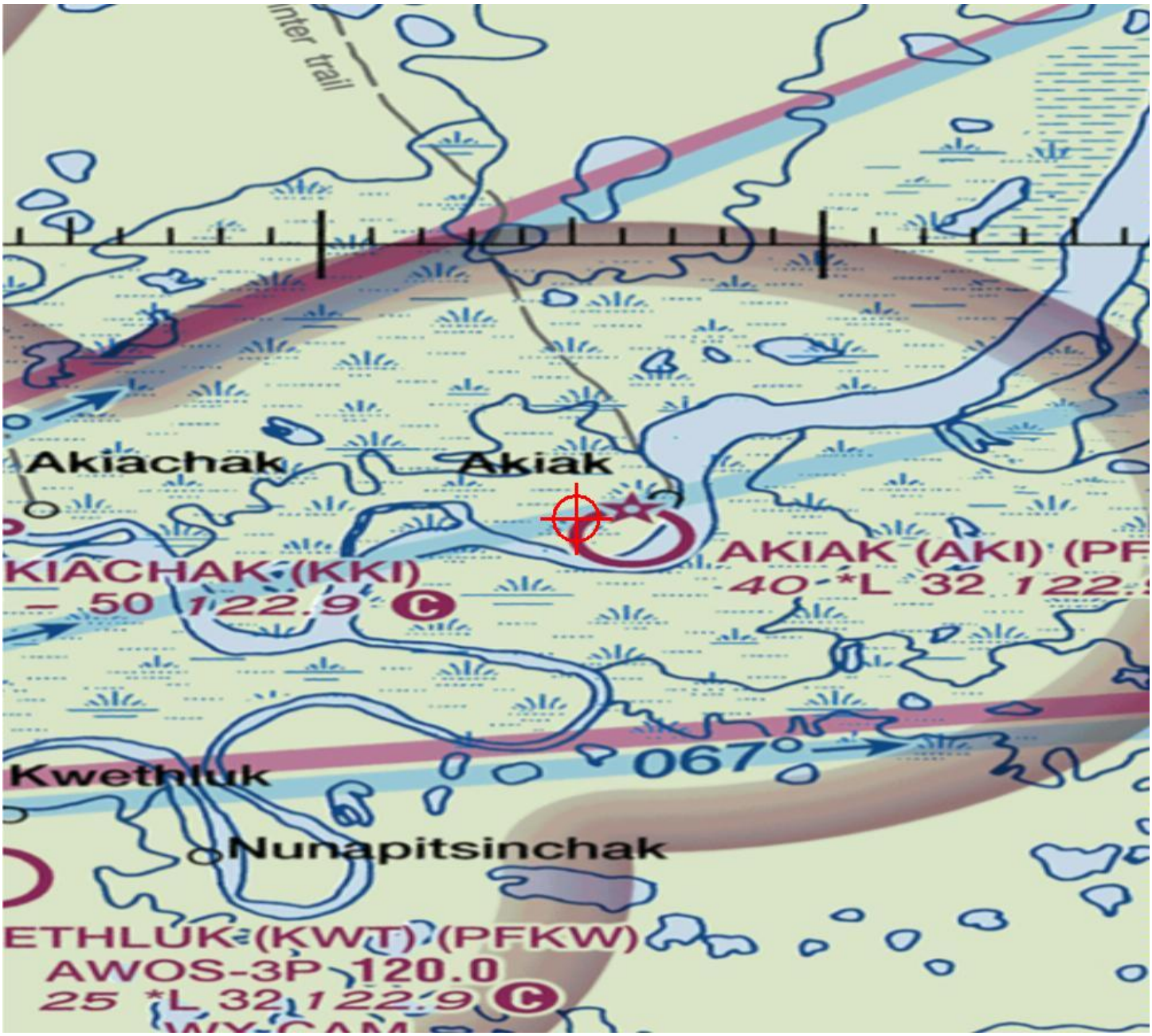
Wildlife Services Alaska
State Director
720 O'Leary Street NW
Olympia, WA 98502
Phone: 360-753-9884
Toll Free: 1-866-4USDAWS
Fax: 360-753-9466

The aeronautical study will be finalized when the wildlife assessments are accomplished later this year.

TOPO Map for ASN 2019-AAL-328-OE



Sectional Map for ASN 2019-AAL-328-OE



Acceptable Separation Distance (ASD) Electronic Assessment Tool

The Environmental Planning Division (EPD) has developed an electronic-based assessment tool that calculates the Acceptable Separation Distance (ASD) from stationary hazards. The ASD is the distance from above ground stationary containerized hazards of an explosive or fire prone nature, to where a HUD assisted project can be located. The ASD is consistent with the Department's standards of blast overpressure (0.5 psi-buildings) and thermal radiation (450 BTU/ft^2 - hr - people and 10,000 BTU/ft^2 - hr - buildings). Calculation of the ASD is the first step to assess site suitability for proposed HUD-assisted projects near stationary hazards. Additional guidance on ASDs is available in the Department's guidebook "Siting of HUD- Assisted Projects Near Hazardous Facilities" and the regulation 24 CFR Part 51, Subpart C, Sitting of HUD-Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature.

Note: Tool tips, containing field specific information, have been added in this tool and may be accessed by hovering over the ASD result fields with the mouse.

Acceptable Separation Distance Assessment Tool

Is the container above ground?	**Yes:** ☑ **No:** ☐
Is the container under pressure?	**Yes:** ☐ **No:** ☑
Does the container hold a cryogenic liquified gas?	**Yes:** ☐ **No:** ☐
Is the container diked?	**Yes:** ☑ **No:** ☐
What is the volume (gal) of the container?	
What is the Diked Area Length (ft)?	100
What is the Diked Area Width (ft)?	30
Calculate Acceptable Separation Distance	
Diked Area (sqft)	3000
ASD for Blast Over Pressure (ASDBOP)	
ASD for Thermal Radiation for People (ASDPPU)	
ASD for Thermal Radiation for Buildings (ASDBPU)	
ASD for Thermal Radiation for People (ASDPNPD)	244.87
ASD for Thermal Radiation for Buildings (ASDBNPD)	44.10

For mitigation options, please click on the following link: Mitigation Options **(/resource/3846/acceptable-separation-distance-asd-hazard-mitigation-options/)**

Providing Feedback & Corrections

After using the ASD Assessment Tool following the directions in this User Guide, users are encouraged to provide feedback on how the ASD Assessment Tool may be improved. Users are also encouraged to send comments or corrections for the improvement of the tool.

Please send comments or other input using the **Contact Us (https://www.hudexchange.info/contact-us/)** form.

Related Information

- **ASD User Guide (/resource/3839/acceptable-separation-distance-asd-assessment-tool-user-guide/)**
- **ASD Flow Chart (/resource/3840/acceptable-separation-distance-asd-flowchart/)**

United States Department of Agriculture

3130-1R NRCS

Natural Resources Conservation Service
590 University Avenue, Suite B
Fairbanks, Alaska 99709
907-479-3159 855-833-8625 FAX
www.ak.nrcs.usda.gov

Subject: Request for SHPO Section 106 Review (36 CFR 800) Date: 9/26/2019

To: STATE HISTORIC PRESERVATION OFFICE
OFFICE OF HISTORY AND ARCHAEOLOGY
DEPARTMENT OF NATURAL RESOURCES
550 West 7th Avenue, Suite 1310
Anchorage, AK 99501

File Code: 190

REQUIRED AGENCY INFORMATION:

Cultural Resources Coordinator:
Joanne Kuykendall
District Conservationist - Hub Leader
USDA Natural Resources Conservation Service
590 University Avenue, Suite B
Fairbanks, Alaska 99709
Telephone: 907-479-3159
Email: joanne.kuykendall@usda.gov

Secondary Contact:
Kristine Harper
Tribal Liaison/Archeologist
USDA Natural Resources Conservation Service
800 East Palmer-Wasilla Hwy, Suite 100
Palmer, AK 99645
Telephone: 907-761-7737
Email: Kristine.harper@usda.gov

GENERAL INFORMATION

Project Name: EWP--Akiak 2019
Landowner: Akiak Native Community and Kokamiut Corporation
Physical Address: Akiak Alaska
Meridian: Seward
Legal: 1/4NW 1/4SW T0100N R0670W Section 31
Topo Map: Bethel D-6
Latitude: 60.9144"N
Longitude: -161.2252"W

FINDING OF EFFECT

No Effect on Cultural Resources.

SM No Historic Properties Affected
Alaska State Historic Preservation Officer
Date: 10.24.19 File No.: 3130-1R NRCS 2019-01179
Please review: 36 CFR 800.13 / A.S. 41.35.070(d)

Helping People Help the Land

An Equal Opportunity Provider and Employer

2019-01179

USDA NRCS

NRCS-CPA-52
4/2013

ENVIRONMENTAL EVALUATION WORKSHEET

A. Client Name: Akiak Native Community

B. Conservation Plan ID # (as applicable):
Program Authority (optional): EWP

C. Identification # (farm, tract, field #, etc. as required):
All Bethel Recording District. Existing Home Sites: CIN1 Block 14, PTN 1, South; CIN2 Block 14 PTN 1, North; CIN 3 Block 9, Lot 2, South; CIN 4 Block 9, Lot 2, North; Block 2, Lot 1; CIN6 USS2243 not platted. New Home Sites: All 6 homes and any associated outbuildings not destroyed will be moved to the west side of Jaup Street.

D. Client's Objective(s) (purpose):
Relocate 6 Homes and demolish and/or remove 6 associated outbuildings/debris piles to prevent them from falling into the Kuskokwim River.

E. Need for Action:
Emergency watershed protection recovery measures are required to relieve hazards created by streambank erosion.

H. Alternatives

No Action	√ if RMS ☐	*Alternative 1*	√ if RMS ☐	*Alternative 2*	√ if RMS ☐
6 homes and 6 outbuildings/debris piles have the potential to fall into the Kuskkowim River with the currently on going or the next significant erosion event.		Relocate homes a minimum distance of 600' from the streambank (Kuskokwim River) as documented 5/30/2019. Demolish/remove 6 outbuildings/debris piles moving the materials a minimum of 600' from the eroding streambank as documented 5/30/2019.			

Resource Concerns

"In Section ""F"" below, analyze, record, and address concerns identified through the Resources Inventory process. (See FOTG Section III - Resource Planning Criteria for guidance). "

F. Resource Concerns and Existing/ Benchmark Conditions (Analyze and record the existing/benchmark conditions for each identified concern)	**I. Effects of Alternatives**					
	No Action		***Alternative 1***		***Alternative 2***	
	Amount, Status, Description *(Document both short and long term impacts)*	**√ if does NOT meet PC**	**Amount, Status, Description** *(Document both short and long term impacts)*	**√ if does NOT meet PC**	**Amount, Status, Description** *(Document both short and long term impacts)*	**√ if does NOT meet PC**
SOIL: *EROSION*						
Sheet, Rill & Wind Erosion - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Sheet, Rill & Wind Erosion - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Sheet, Rill & Wind Erosion - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Sheet, Rill & Wind Erosion - Associated Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Sheet, Rill & Wind Erosion - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Sheet, Rill & Wind Erosion - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Concentrated Flow - Ephemeral Gully Erosion - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Concentrated Flow - Classic Gully Erosion- Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Concentrated Flow - Classic Gully Erosion - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC

Concentrated Flow - Classic Gully Erosion - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Concentrated Flow - Classic Gully Erosion - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Concentrated Flow - Classic Gully Erosion - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Concentrated Flow - Classic Gully Erosion- Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive Bank Erosion - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive Bank Erosion - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive Bank Erosion - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive Bank Erosion - Assoc Ag Land Banks of streams, shorelines or water conveyance channels ARE NOT stable and actively eroding.	Streambank erosion will continue at a natural rate, but homes will fall into the river.	☐ NOT meet PC	Streambank will continue at a natural rate, but homes, outbuildings and debris piles will not fall into the river.	☐ NOT meet PC		☐ NOT meet PC
Excessive Bank Erosion - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive Bank Erosion - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
SOIL: ***SOIL QUALITY DEGRADATION***						
Subsidence - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Subsidence - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Subsidence - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Subsidence - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Compaction - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Compaction - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Compaction - Assoc Ag Land	Relocation sites identified for homes will remain unimproved in the short term; in the long term they will be utilized for homes.	☐ NOT meet PC	Relocation sites will be prepared for homes. Brushing and leveling will occur and soil compaction is expected.	☐ NOT meet PC		☐ NOT meet PC

		NOT meet		NOT meet		NOT meet
Compaction - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Organic matter depletion - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Organic matter depletion - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Organic matter depletion - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Organic matter depletion - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Concentration of salts or other chemicals - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Concentration of salts or other chemicals - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Concentration of salts or other chemicals - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Concentration of salts or other chemicals - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Concentration of salts or other chemicals - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
WATER: ***EXCESS / INSUFFICIENT WATER***						
Excess (Ponding, flooding, seasonal high water table, seeps, and drifted snow) - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excess (Ponding, flooding, seasonal high water table, seeps, and drifted snow) - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excess (Ponding, flooding, seasonal high water table, seeps, and drifted snow) - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excess (Ponding, flooding, seasonal high water table, seeps, and drifted snow) - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excess (Ponding, flooding, seasonal high water table, seeps, and drifted snow) - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC

Excess (Ponding, flooding, seasonal high water table, seeps, and drifted snow) - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Insufficient (Inefficient moisture management) - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Insufficient (Inefficient moisture management) - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Insufficient (Inefficient moisture management) - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Insufficient (Inefficient moisture management) - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Insufficient (Inefficient moisture management) - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Insufficient (Inefficient use of irrigation water)		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
WATER: ***WATER QUALITY DEGRADATION***						
Excess nutrients in surface and ground waters - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excess nutrients in surface and ground waters - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excess nutrients in surface and ground waters - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excess nutrients in surface and ground waters - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excess nutrients in surface and ground waters - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excess nutrients in surface and ground waters - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Pesticides transported to surface and ground waters - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC

Pesticides transported to surface and ground waters - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Pesticides transported to surface and ground waters - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Pesticides transported to surface and ground waters - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Pesticides transported to surface and ground waters - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Pesticides transported to surface and ground waters - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excess pathogens and chemicals from manure, bio-solids or compost applications - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excess pathogens and chemicals from manure, bio-solids or compost applications - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excess pathogens and chemicals from manure, bio-solids or compost applications - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excess pathogens and chemicals from manure, bio-solids or compost applications - Assoc Ag Land	Homes fall into the river and harmful levels of pathogens may be introduced to the river as parts of the sewar system are eroded into the river.	☐ NOT meet PC	Upon removal of the homes, local authorities have the opportunity to recover or remove sewer lines. This is left up to the community, as work on public utilities is not authorized for EWP.	☐ NOT meet PC		☐ NOT meet PC
Excess pathogens and chemicals from manure, bio-solids or compost applications - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excess pathogens and chemicals from manure, bio-solids or compost applications - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive salts in surface and ground waters - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive salts in surface and ground waters - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive salts in surface and ground waters - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive salts in surface and ground waters - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC

Excessive salts in surface and ground waters - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive salts in surface and ground waters - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Petroleum, heavy metals, and other pollutants transported to receiving water sources - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Petroleum, heavy metals, and other pollutants transported to receiving water sources - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Petroleum, heavy metals, and other pollutants transported to receiving water sources - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Petroleum, heavy metals, and other pollutants transported to receiving water sources - Assoc Ag Land	Homes fall into the river and harmful levels of petroleum (i.e.heating oil) and other hazardous substances/ materials may be introduced to the river.	☐ NOT meet PC	Harmful levels of petroleum and other hazardous substances/materials are prevented from entering the river.	☐ NOT meet PC		☐ NOT meet PC
Petroleum, heavy metals, and other pollutants transported to receiving water sources - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Petroleum, heavy metals, and other pollutants transported to receiving water sources - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive sediment in surface waters - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive sediment in surface waters - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive sediment in surface waters - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive sediment in surface waters - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive sediment in surface waters - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive sediment in surface waters - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Elevated water temperature - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Elevated water temperature - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC

Elevated water temperature - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Elevated water temperature - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Elevated water temperature - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Elevated water temperature - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
AIR: ***AIR QUALITY IMPACTS***						
Emissions of Particulate Matter (PM) and PM Precursors - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Emissions of Particulate Matter (PM) and PM Precursors - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Emissions of Particulate Matter (PM) and PM Precursors - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Emissions of Particulate Matter (PM) and PM Precursors - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Emissions of Particulate Matter (PM) and PM Precursors - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Emissions of Particulate Matter (PM) and PM Precursors - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Emissions of Greenhouse Gases (GHGs) - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Emissions of Greenhouse Gases (GHGs) - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Emissions of Greenhouse Gases (GHGs) - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Emissions of Greenhouse Gases (GHGs) - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Emissions of Greenhouse Gases (GHGs) - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Emissions of Greenhouse Gases (GHGs) - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC

Emissions of Ozone Precursors - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Emissions of Ozone Precursors - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Emissions of Ozone Precursors - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Emissions of Ozone Precursors - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Emissions of Ozone Precursors - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Emissions of Ozone Precursors - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Objectionable odors - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Objectionable odors - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Objectionable odors - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
PLANTS: ***DEGRADED PLANT CONDITION***						
Undesirable plant productivity and health - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Undesirable plant productivity and health - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Undesirable plant productivity and health - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Undesirable plant productivity and health - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Undesirable plant productivity and health - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Undesirable plant productivity and health - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Inadequate structure and composition - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Inadequate structure and composition - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC

Inadequate structure and composition - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Inadequate structure and composition - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive plant pest pressure - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive plant pest pressure - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive plant pest pressure - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive plant pest pressure - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive plant pest pressure - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Excessive plant pest pressure - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Wildfire hazard, excessive biomass accumulation - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Wildfire hazard, excessive biomass accumulation - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Wildfire hazard, excessive biomass accumulation - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Wildfire hazard, excessive biomass accumulation - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Wildfire hazard, excessive biomass accumulation - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Wildfire hazard, excessive biomass accumulation - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
ANIMALS: ***INADEQUATE HABITAT / FISH & WILDLIFE***						
Habitat degradation - quantity and quality of food - Wildlife Modifier		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Habitat degradation - quantity and quality of water - Wildlife Modifier	Homes, outbuildings/debris piles fall into river and pollutants enter the watershed. Short term and long term impacts to wildlife habitat probable.	☐ NOT meet PC	Homes, outbuildings/debris piles are prevented from falling into the river and impact to wildlife habitat prevented.	☐ NOT meet PC		☐ NOT meet PC

Habitat degradation - quantity and quality of cover/shelter - Wildlife Modifier		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Habitat degradation - habitat continuity/space - Wildlife Modifier		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
ANIMALS: ***LIVESTOCK PRODUCTION LIMITATION***						
Inadequate feed and forage - Grazing Modifier		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Inadequate livestock shelter - Grazing Modifier		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Inadequate livestock water - Grazing Modifier		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
ENERGY: ***INEFFICIENT ENERGY USE***						
Equipment and facilities - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Equipment and facilities - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Equipment and facilities - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Equipment and facilities - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Equipment and facilities - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Equipment and facilities - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Farming/ranching practices and field operations - Crop		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Farming/ranching practices and field operations - Pasture		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Farming/ranching practices and field operations - Farmstead		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Farming/ranching practices and field operations - Assoc Ag Land		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
Farming/ranching practices and field operations - Forest		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC

Farming/ranching practices and field operations - Range		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
HUMAN: *ECONOMIC & SOCIAL CONSIDERATIONS*						
Land Use						
Capital						
Labor						
Management Level						
Profitability						
Risk	Homes fall into the river and potentially harm residents in the process and leave residents homeless.		Homes are prevented from falling into the river and health, safety and economic security of residents is increased.			
Homes may fall into the river jeopardizing health, safety and economic security.						
Public Health and Safety	Homes fall into the river and pollutants enter watershed endangering human health.		Homes are prevented from falling into the river and increased human safety ensured.			
Public Health and Safety: Homes may fall into the river introducing pollutants into the watershed.						

G. Special Environmental Concerns (Document existing/ benchmark conditions)	**J. Impacts to Special Environmental Concerns**					
	No Action		***Alternative 1***		***Alternative 2***	
	Document all impacts (Attach Guide Sheets as applicable)	√ if needs further action	Document all impacts (Attach Guide Sheets as applicable)	√ if needs further action	Document all impacts (Attach Guide Sheets as applicable)	√ if needs further action
•Clean Air Act *Guide Sheet* *FS1* *FS-2* No Nonattainment or Maintenance areas designated for non-attainment of air quality standards AND there are no Class 1 areas nearby.	No Effect	☐ needs further action	No Effect	☐ needs further action		☐ needs further action
•Clean Water Act / Sec 404 Waters of the U.S. *Guide Sheet* *Fact Sheet* Kuskokwim River is a potential Waters of the US present in the planning area.	No Effect	☐ needs further action	No Effect	☐ needs further action		☐ needs further action
•Clean Water Act / Sec 303 Impaired Waters *Guide Sheet* *Fact Sheet* No "impaired" waters listed under Section 303(d) of the CWA are located in proximity to the planning area.	No Effect	☐ needs further action	No Effect	☐ needs further action		☐ needs further action
•Clean Water Act / Sec 402 National Pollutant Discharge Elimination *Guide Sheet* *Fact Sheet*	No Effect	☐ needs further action	No Effect	☐ needs further action		☐ needs further action
•Coastal Zone Management *Guide Sheet* *Fact Sheet* No Coastal Zone Management Areas are in or near the planning area.	No Effect Not in a coastal zone	☐ needs further action	No Effect Not in a coastal zone	☐ needs further action		☐ needs further action

Coral Reefs *Guide Sheet* *Fact Sheet* No coral reefs or associated water bodies (e.g. embayment areas) are present in or near the planning area.	No Effect Not present	☐ needs further action	No Effect Not present	☐ needs further action		☐ needs further action
•Cultural Resources / Historic Properties *Guide Sheet* *Fact Sheet* There may be cultural resources or historic properties present in the Area of Potential Effect. AK-CR 1 has been sent to SHPO and THPO for review.	AK-CR 1 has been sent to SHPO and THPO for review.	☐ needs further action	AK-CR 1 has been sent to SHPO and THPO for review.	☑ needs further action		☐ needs further action
•Endangered and Threatened Species *Guide Sheet* *Fact Sheet* There are no federally listed, proposed, or candidate species; or State and Tribal species of concern; or habitat for any of these at-risk species present in proximity to the planning area.	No Effect The affected site is in a totally developed/altered village area.	☐ needs further action	No Effect The current homes/outbuildings/debris piles are in a totally developed/altered village area. The relocation site for the homes to be moved to is also in a housing subdivision.	☐ needs further action		☐ needs further action
Environmental Justice *Guide Sheet* Akiak Native Community predominately low-income and Alaskan Native.	No Effect This is an Alaska Native Village.	☐ needs further action	No Effect This project is in an AK Native Village at the Tribal Council's request. It will benefit tribal members.	☑ needs further action		☐ needs further action
•Essential Fish Habitat *Guide Sheet* *Fact Sheet* Kuskokwim river is an anadromous water body.	No Effect	☐ needs further action	No Effect	☐ needs further action		☐ needs further action
Floodplain Management *Guide Sheet* *Fact Sheet* 100 year Floodplain map has not been produced by FEMA for Akiak, AK.	No Effect	☐ needs further action	No Effect	☐ needs further action		☐ needs further action
Invasive Species *Guide Sheet* *Fact Sheet* No invasive species are present or known to occur in proximity to the planning area.	No Effect	☐ needs further action	No Effect	☐ needs further action		☐ needs further action
•Migratory Birds/Bald and Golden Eagle Protection Act *Guide Sheet* *Fact Sheet* No habitat for migratory birds, bald or golden eagles is present in or near the planning area because the area is highly disturbed.	No Effect The affected site is in a developed/altered village area.	☐ needs further action	No Effect The current homes and outbuilding/debris piles are in a developed/altered village area. The relocation site for the homes to be moved to is also in a housing subdivision.	☐ needs further action		☐ needs further action
Natural Areas *Guide Sheet* *Fact Sheet* There are no designated natural areas present in or near the planning area.	No Effect	☐ needs further action	No Effect	☐ needs further action		☐ needs further action
Prime and Unique Farmlands *Guide Sheet* *Fact Sheet* No prime or unique farmlands or farmlands of statewide or local importance are present in the planning area.	No Effect	☐ needs further action	No Effect	☐ needs further action		☐ needs further action
Riparian Area *Guide Sheet* *Fact Sheet* Riparian areas along Kuskokwim River are present in the planning area.	No Effect Homes sites currently in riparian area.	☐ needs further action	No Effect Relocation site away from riparian area.	☐ needs further action		☐ needs further action
Scenic Beauty *Guide Sheet* *Fact Sheet* The project site is in a developed/altered village area.	No Effect	☐ needs further action	No Effect	☐ needs further action		☐ needs further action

•**Wetlands** *Guide Sheet* *Fact Sheet* No wetlands are present in the planning area.	No Effect Not present.	☐ needs further action	No Effect Relocated homes not to be put into a wetland area.	☐ needs further action		☐ needs further action
•**Wild and Scenic Rivers** *Guide Sheet* *Fact Sheet* No Federal or State designated Wild, Scenic, or Recreational river segments or rivers listed in the Nationwide Rivers Inventory (NRI) are present in or near the planning area.	No Effect	☐ needs further action	No Effect	☐ needs further action		☐ needs further action

K. Other Agencies and Broad Public Concerns	***No Action***	***Alternative 1***	***Alternative 2***
Easements, Permissions, Public Review, or Permits Required and Agencies Consulted.	None Required	Section 106 review, SHPO Section 106 review, THPO Community outreach to affected parties Underground utility notificaton required prior to any activities that involve excavatation.	
Cumulative Effects Narrative (Describe the cumulative impacts considered, including past, present and known future actions regardless of who performed the actions)		Relocation of the homes away from the riverbank is preferred to ensure the safety of the watershed and the homeowners.	
L. Mitigation (Record actions to avoid, minimize, and compensate)			
M. Preferred Alternative √ preferred alternative	☐	☑	☐
Describe impacts (+ or -) on any resources not identified above:		Relocation of the homes away from the riverbank is preferred to ensure the safety of the watershed and the homeowners.	
Supporting reason			

N. Context (Record context of alternatives analysis) | local | regional |

The significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality.

O. Determination of Significance or Extraordinary Circumstances

Intensity: Refers to the severity of impact. Impacts may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

If you answer ANY of the below questions "yes" then contact the State Environmental Liaison as there may be extraordinary circumstances and significance issues to consider and a site specific NEPA analysis may be required.

Yes	No	
☐	☑	• Is the preferred alternative expected to cause significant effects on public health or safety?
☐	☑	• Is the preferred alternative expected to significantly affect unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas?
☐	☑	• Are the effects of the preferred alternative on the quality of the human environment likely to be highly controversial?
☐	☑	• Does the preferred alternative have highly uncertain effects or involve unique or unknown risks on the human environment?
☐	☑	• Does the preferred alternative establish a precedent for future actions with significant impacts or represent a decision in principle about a future consideration?
☐	☑	• Is the preferred alternative known or reasonably expected to have potentially significant environment impacts to the quality of the human environment either individually or cumulatively over time?
☐	☑	• Will the preferred alternative likely have a significant adverse effect on ANY of the special environmental concerns? Use the Evaluation Procedure Guide Sheets to assist in this determination. This includes, but is not limited to, concerns such as cultural or historical resources, endangered and threatened species, environmental justice, wetlands, floodplains, coastal zones, coral reefs, essential fish habitat, wild and scenic rivers, clean air, riparian areas, natural areas, and invasive species.
☐	☑	• Will the preferred alternative threaten a violation of Federal, State, or local law or requirements for the protection of the environment?

P. To the best of my knowledge, the data shown on this form is accurate and complete:
In the case where a non-NRCS person (e.g. a TSP) assists with planning they are to sign the first signature block and then NRCS is to sign the second block to verify the information's accuracy.

Signature (TSP if applicable)	Title	Date
Ryan Maroney	Alaska Native Technical Liaison	9/23/2019
Signature (NRCS)	**Title**	**Date**

If preferred alternative is not a federal action where NRCS has control or responsibility and this NRCS-CPA-52 is shared with someone other than the client then indicate to whom this is being provided.

The following sections are to be completed by the Responsible Federal Official (RFO)

NRCS is the RFO if the action is subject to NRCS control and responsibility (e.g., actions financed, funded, assisted, conducted, regulated, or approved by NRCS). These actions do not include situations in which NRCS is only providing technical assistance because NRCS cannot control what the client ultimately does with that assistance and situations where NRCS is making a technical determination (such as Farm Bill HEL or wetland determinations) not associated with the planning process.

Q. NEPA Compliance Finding (check one)

	The preferred alternative:	**Action required**
☐	1) is **not a federal action** where the agency has control or responsibility.	Document in "R.1" below. No additional analysis is required
☐	2) is a federal action **ALL** of which is **categorically excluded** from further environmental analysis **AND** there are **no extraordinary circumstances as identified in Section "O".**	Document in "R.2" below. No additional analysis is required
☑	3) is a federal action that has been **sufficiently analyzed** in an existing Agency state, regional, or national NEPA document **and** there are no predicted significant adverse environmental effects or extraordinary circumstances.	Document in "R.1" below. No additional analysis is required.
☐	4) is a federal action that has been sufficiently analyzed in another Federal agency's NEPA document (EA or EIS) that addresses the proposed NRCS action and its' effects **and has been formally adopted by NRCS**. NRCS is required to prepare and publish its own Finding of No Significant Impact for an EA or Record of Decision for an EIS when adopting another agency's EA or EIS document. (**Note: This box is not applicable to FSA)**	Contact the State Environmental Liaison for list of NEPA documents formally adopted and available for tiering. Document in "R.1" below. No additional analysis is required
☐	5) is a federal action that has **NOT** been sufficiently analyzed or may involve predicted significant adverse environmental effects or extraordinary circumstances and may require an EA or EIS.	Contact the State Environmental Liaison. Further NEPA analysis required.

R. Rationale Supporting the Finding	
R.1 Findings Documentation	Emergency Watershed Protection Program, Natural Resources Conservation Service, Final Programmatic Environmental Impact Statement, December 2004.
R.2 Applicable Categorical Exclusion(s) **(more than one may apply)** 7 CFR Part 650 *Compliance With NEPA* , subpart 650.6 *Categorical Exclusions* states prior to determining that a proposed action is categorically excluded under paragraph (d) of this section, the proposed action must meet six sideboard criteria. See NECH 610.116.	

I have considered the effects of the alternatives on the Resource Concerns, Economic and Social Considerations, Special Environmental Concerns, and Extraordinary Circumstances as defined by Agency regulation and policy and based on that made the finding indicated above.

S. Signature of Responsible Federal Official:

	District Conservationist	September, 25, 2019
Signature	**Title**	**Date**

Additional notes

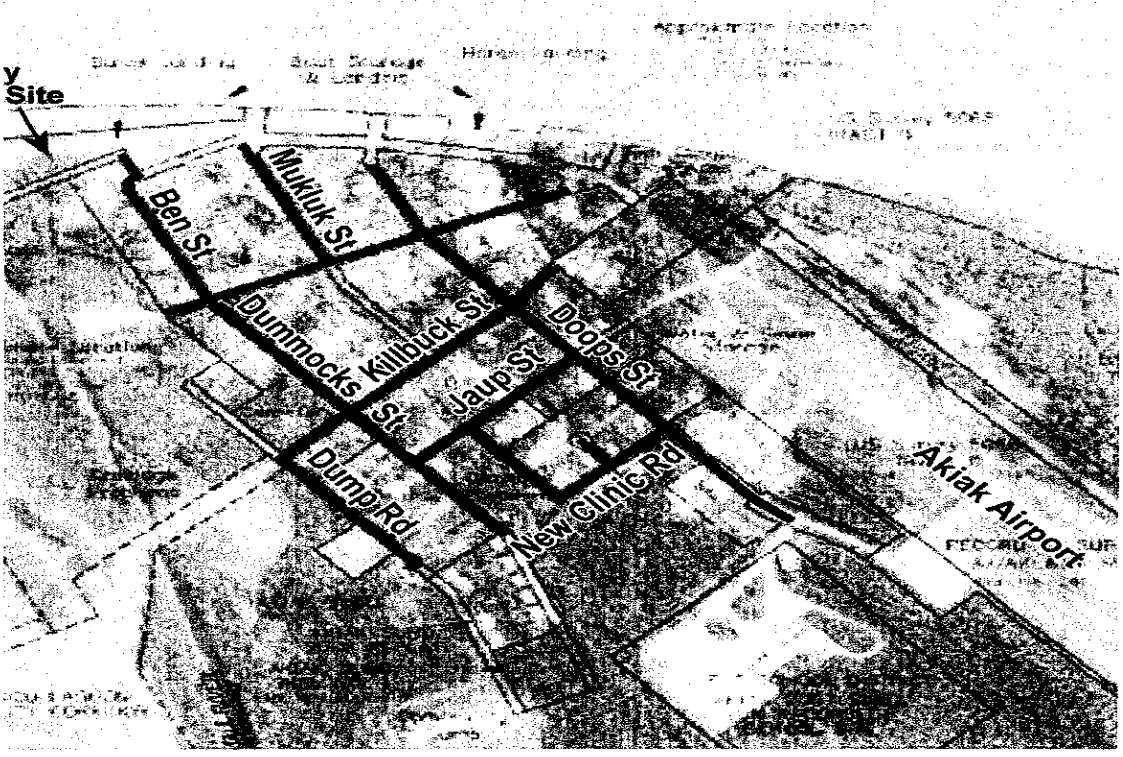
(6) Removing or relocating residential, commercial, and other public and private buildings and associated structures constructed in the 100-year floodplain or within the breach inundation area of an existing dam or other flood control structure in order to restore natural hydrologic conditions of inundation or saturation, vegetation, or reduce hazards posed to public safety; I would have preferred to use this categorical exclusion as the EWP project is to move homes, outbuildings and debris to prevent them from falling into the river due to bank erosion and causing a watershed impairment and hazards to public safety. My only hesitation in using it is that the CATEX reads "100 yr floodplain", and the eroding bank in the EWP project area is a high bank likely above the 100 yr floodplain. FEMA has not mapped the Floodplain in Akiak.

U.S. Department
of Transportation
Federal Highway Administration

Western Federal Lands Highway Division
610 E. Fifth Street
Vancouver, WA 98661
Phone 360-619-7700
Fax 360-619-7846

January 10, 2011

CATEGORICAL EXCLUSION
For
AK DEN 2009(5)
Akiak Roads Rehabilitation Project



INTRODUCTION

The Western Federal Lands Highway Division (WFLHD) of the Federal Highway Administration (FHWA), in cooperation with the Denali Commission (DEN) and the Native Village of Akiak, is proposing to improve approximately 2.2 miles of community streets within Akiak. Akiak is located on the west bank of the Kuskokwim River, 42 air miles northeast of Bethel, on the Yukon-Kuskokwim Delta. It lies at approximately 60.912220 North Latitude and 161.213890 West Longitude. (Sec. 32, T010N, R067W, Seward Meridian.). Akiak, population 350, is located in the Bethel Recording District.

PROPOSED ACTION

The project consists of rehabilitating and resurfacing approximately 0.7 miles of city streets in Akiak, Alaska. The project will rehabilitate Doops Street, New Clinic Road, and Jaup Street. Doops Street begins where the Alaska Department of Transportation & Public Facilities (ADOT&PF) Airport Road ends and terminates near the Kuskokwim River. The section proposed for repair is from the water treatment plant to the intersection with Killbuck Street. School Road, Jaup Street, and New Clinic Road all intersect Doops Street and extend a few blocks to the west. Improvements will consist of minor grading, filling, removal and replacement of culverts, reconstructing intersections to existing roads and applying permanent roadway surfacing of calcium chloride to reduce dust and erosion. The roadway will be surfaced to a consistent width of approximately 20 feet, with a 3 percent crown and a minimum 1:3 slopes at the edge of the roadway. To provide adequate drainage to transport runoff and flood water across and away from the roads, ditches will be established and culverts will be installed. The project will raise the grade to establish these ditches and allow for the placement of culverts.

Additional work consists of roadbed reconditioning, placement of geotextile, and placement of calcium chloride treated aggregate surfacing of approximately 1.5 miles of Mukluk, Ben, Dummocks and Killbuk Streets and Dump Road in downtown Akiak. The resurfaced roadways will receive a compacted gravel surface with dust treatment. An estimated 20 feet wide of resurfacing material is required to reduce the deteriorating conditions on these existing streets. The additional gravel material will be placed on the roadways. All road construction activities will be limited to the existing right of way and will match the grade of residential or other approaches on both sides of the road. Rock material will come from existing or commercial material sources. All bank cuts, slopes, fills or other exposed earthwork will be stabilized to prevent erosion and sedimentation. Sediment and erosion control measures will be installed prior to any ground disturbing activity.

Ancillary Areas-

There may be some construction activities that will take place outside the construction limits that will require ground disturbance, occupation, clearing, or could result in some environmental impacts. Such activities may be material extraction, material wasting, water retrieval, staging, etc. These activities will take place at either commercial or non-commercial sources. Commercial sources are established, have provided material to public and private entities on a regular basis over the last two years, have appropriate federal, state and local permits, and do not require expansion outside their currently established and permitted area.

Should a non-commercial source be used, use of the area: (a) will not affect properties on or

eligible for listing to the National Register of Historic Places (NRHP); (b) will have no effect to species or habitat listed as threatened or endangered under the Endangered Species Act (ESA), and (c) will not encroach into waters of the U.S. or wetlands protected under the Clean Water Act (CWA).

ENVIRONMENTAL ACTIVITIES

WFLHD finds the following:

Cultural Resources

WFLHD conducted a review of the Alaska Heritage Resources Survey (AHRS) database for known cultural sites within the project area. The AHRS listed two previous recorded historic properties near Akiak. One site (BTH-123) is an abandoned cemetery located on the banks of the Kuskokwim River. The second site is the historical village of Akiak (BTH-018). The abandoned cemetery (BTH-123) is not anticipated to be impacted by this project action as no construction activity will occur adjacent to the site. The historical village of Akiak (BTH-018) was identified in a 2006 archaeological survey. The survey and local interviews did not identify any physical evidence suggesting presence of cultural resources or of early settlement. Additionally no items of cultural historical significance were identified in the vicinity of the APE.

Based on the above, WFLHD made a determination that there would be "*no historic properties affected*" as a result of the project. WFLHD submitted to the Alaska State Historic Preservation Office (SHPO) on October 19, 2010 a request for concurrence on this determination. On December 15, 2010 the SHPO concurred with this finding.

Should operations encounter any prehistoric artifacts, burials, remains of dwelling sites, paleontological remains, shell heaps, land or sea mammal bones, tusks, or other items of historical or archaeological significance, operations will immediately cease at the site of the discovery and SHPO will be notified.

Threatened and Endangered Species

The project area is over 30 miles from the Steller's eider migration winter range (USFWS Alaska Region Consultation Guide Map, January 4, 2011). Steller's eider is listed as threatened under the ESA. Habitat for Steller's eider is in shallow near-shore marine waters along the coastline. Within the project area, there is no suitable habitat for Steller's eider. The project will have no impact on marine shore habitat and will additionally be constructed in the summer months outside of the winter migration period. The project will also occur entirely within the right of way of an existing road. Based on the above, this project will have *no effect* on the migration and winter range of the Steller's eider. No other species listed under the ESA occur in the project area. This determination concludes consultation requirements under Section 7 of the ESA.

Wetlands and Waters of the US

In accordance with Executive Order 11990, Protection of Wetlands, the effects of project activities on wetlands have been evaluated. A wetland determination for the project area was made based on field reviews and recording observations of wetland indicators such as wetland vegetation, hydric soil, and sufficient hydrology. The wetland determination was also supported by reviewing photographs of the project area and the National Wetlands Inventory. Based on the above, wetlands were found to be present in existing roadside ditches in several locations along sections of Doops and Jaup Street and Clinic Road. Approximately 0.23 acres of these roadside ditch wetlands will be permanently impacted by the proposed action.

Permanent impacts will occur from filling in the existing ditches and constructing new ditches. New ditches will be constructed in the same soils that currently support wetlands. Because these ditches will frequently contain water, there will be sufficient hydrology to support wetland vegetation. The new ditches are expected to support the same wetland functions and values as the impacted ditches. The existing roadbed is constructed in the floodplain of the Kuskokwim River. The city of Akiak is also within this floodplain. Because the road was established in the floodplain and wetlands are adjacent to it, any effort to completely avoid impacts would likely include relocating the road. This would incur additional and unnecessary social and environmental impacts. As the wetlands typically found in roadside ditches have lower overall functions and values, due to pollutants and less diversity of plant species, it would be impractical to impact higher functioning (non-roadside) wetlands to avoid these impacts.

The project was designed to minimize impacts, by minimizing fill wherever possible. Coordination with the US Army Corps of Engineers will occur to ensure the project is consistent with the Clean Water Act (CWA) requirements and approved accordingly under Section 404 of the CWA. Sediment and erosion control measures will also be in place to prevent additional impacts to wetlands or waters of the US. Wetland topsoil will be salvaged, stockpiled and replaced to promote native plant re-growth.

Based on the above, WFLHD has determined there is no practicable alternative to the proposed construction in wetlands, and the proposed action includes all practicable measures to minimize harm to wetlands. This action complies with Executive Order (EO) 11990.

Executive Order 11988- Floodplain Management

EO 11988 directs all federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of flood plains. The proposed action is not within a Federal Emergency Management Agency (FEMA) regulated floodplain.

Essential Fish Habitat

Under the Magnuson Stevens Fishery Conservation and Management Act, the USACE considered the potential effects to Essential Fish Habitat (EFH). There are no anadromous fish or EFH present in the project area (Alaska Department of Fish and Game, 2010). Therefore the project will have no adverse effects to EFH.

If water will be withdrawn from a fish bearing water-body, the following conditions will apply:

- The suction hose at the water extraction site must be clean and free from contamination at all times to prevent introduction of contamination to the water bodies, and should be in water of a sufficient depth so that the stream sediments are not disturbed during the extraction process.
- Vehicles or equipment will not be allowed to operate within the open water of the stream, with the exception of the water withdrawal pump intake.
- To avoid entrainment, impingement, or injury to anadromous or resident fish, a properly sized and screened structure must surround the water intake structure. The screen mesh shall not exceed 3/32 inches (2.4 millimeter [mm]), and the water velocity at the screen surface shall not exceed 0.4 foot per second at the screen water interface.
- Adequate flow must remain to support indigenous aquatic life and the watercourse must not be blocked to the passage of fishes.
- The intake screen shall be periodically monitored during operations to ensure the following: the screening has not collapsed to below the minimum distance between the water intake and screen surface; no openings exist in the mesh or gaps between the mesh and frame of intake structure greater than 2.4 mm; and the screen has not become blocked by debris.

Alaska Coastal Management Program

The Alaska Division of Coastal and Ocean Management reviews projects for consistency with the Alaska Coastal Management Program (ACMP). The Akiak project area falls within the Inland Coastal Zone Boundary, Bethel #48 ACMP. Under Appendix A of the 1996 Memorandum of Understanding between the WFLHD and the Alaska Division of Governmental Coordination, the proposed project does not require a consistency determination under the ACMP because it involves rehabilitating and resurfacing existing roads and improvements to intersections and fill slopes within the existing right of way. Resurfacing activities include the placement of additional surface material and other work necessary to return an existing roadway, including shoulders, the roadside, and appurtenances to a condition of structural or functional adequacy. No further review is necessary under the ACMP.

If changes to the approved project (such as methods, scope, or location of the proposed activities) are made prior to or during construction, the applicant is required to notify the permitting and authorizing agencies immediately to determine whether further review and approval of the revised project is necessary.

Executive Order 13175 Consultation and Coordination with Indian Tribal Governments

Executive Order 13175 established a requirement for regular and meaningful consultation between federal and Tribal government officials on federal policies that have Tribal implications. The Akiak Native Community (ANC)-IRA Council, the federally recognized Tribe in Akiak, nominated the proposed project for funding from the Denali Commission. WFLHD is in partnership with the ANC-IRA Council to develop the project and has continued to involve the village in the project development process.

Permits

The following authorizations may be required:

US Army Corps of Engineers-
Section 404 Authorization

Alaska Department of Environmental Conservation-
Section 401 Water Quality Certificate
Section 402 Construction General Permit, Alaska Pollution Discharge Elimination System

CONCLUSION

Consistent with the FHWA regulations and based upon the above considerations, WFLHD has determined that this action (1) will not have a significant effect on the human environment and (2) falls within the category of actions covered by the FHWA's categorical exclusion regulations and therefore meets the categorical exclusion definition contained in 40 CFR 1508.4. WFLHD finds this work constitutes an action covered under the National Listing of Categorical Exclusions, 23 CFR 771.117(a) because: 1) the action will not induce significant impacts to planned growth or land use in the area; 2) the action will not require the relocation of any people; 3) the action will not have a significant impact on any natural, cultural, recreational, historic or other resource.; 4) the action will not involve significant air, noise or water quality impacts; 5) the action will not have significant impacts on travel; and 6) the action will not otherwise, either individually or cumulatively, have any significant environmental impacts. The proposed project does not include any unusual circumstances as listed in 23 CFR 771.117(b) that would make the Categorical Exclusion classification improper. Furthermore, the WFLHD finds this work to be consistent with an action in the National Listing of Categorical Exclusions, 23 CFR 771.117(d)(1) as it is the modernization of a highway by re-surfacing, restoration, rehabilitation and reconstruction. Furthermore the proposed transportation improvements do not include any unusual circumstances as listed in 23 CFR 771.117(b) that would make this categorical exclusion classification improper.

RECOMMENDED BY:

Elisa M. Carlsen — Date: 1-10-11
Environmental Protection Specialist

APPROVED BY:

David K. Kennedy — Date: 1-10-11
Environmental Program Manager

PUBLIC NOTIFICATION OF FINDING OF NO SIGNIFICANT IMPACT

FEBRUARY 2003

DEPARTMENT OF HEALTH AND HUMAN SERVICES
INDIAN HEALTH SERVICE

Notice of Availability of an Environmental Assessment and Finding of No Significant Impact on the construction of sanitation facilities for the Akiak, Alaska under the lead management of **Alaska Native Tribal Health Consortium** (ANTHC). The scope of work is the construction of a new residential sewage lagoon and access road. These facilities were completed in September 2002.

AGENCY: Indian Health Service

ACTION: Notice

SUMMARY: This notice advises the public that an environmental assessment and Finding of No Significant Impact on the construction of sanitation facilities for Akiak, Alaska is available for public review.

FOR FURTHER INFORMATION CONTACT:
Steve Bolan, Alaska Area Native Health Service, 907-729-3711

Individuals wishing copies of these documents should contact the above individual.

SUPPLEMENTAL INFORMATION:
The **Alaska Native Tribal Health Consortium** prepared an environmental assessment on the proposal to construct the following project:

This action will result in the construction a new residential sewage lagoon and access road.

Based on the environmental assessment, IHS has determined that the proposed project will not have a significant impact on the quality of the human environment.

February 26, 2003

Steve Bolan

Steve Bolan, P.E.
NEPA Review Officer
Alaska Area Native Health Service

Steve Bolan
(Printed or typed name of signer)

INDIAN HEALTH SERVICE
ALASKA AREA NATIVE HEALTH SERVICE
ENVIRONMENTAL REVIEW AND DETERMINATION
FINDING OF NO SIGNIFICANT IMPACT

SANITATION FACILITIES CONSTRUCTION PROJECT
AT
AKIAK, ALASKA
WITH
ALASKA NATIVE TRIBAL HEALTH CONSORTIUM

Projects AN 99-P39 & 01-M68

February 2003

Background

This project provides for the construction of sanitation facilities at Akiak, Alaska under the lead management from the Alaska Native Tribal Health Consortium (ANTHC). The proposed scope of work is:

- Construction of a 7.6 acre residential sewage lagoon (Completed 09/02)
- Construction of 1,355 feet of gravel access road to the new sewage lagoon

Residents currently carry treated water from central watering points to their homes. Sewage disposal requires residents to haul honey buckets of raw sewage waste to a honey bucket lagoon. Lagoons can cause odor problems, especially when the wind blows from the lagoons to the community. The proposed project addresses the need for a sewage lagoon for all residential users in Akiak. Facultative lagoons offer the most economical and appropriate technology for small rural Alaskan communities for wastewater treatment.

The Environmental Assessment analyzes only two alternatives in detail: the No Action alternative and the proposed action. These two alternatives represent an acceptable range of reasonable alternatives.

Environmental Issues

The primary environmental issues as applicable to the needs identified at Akiak are:

- To improve the overall health conditions of local residents.
- To provide a sewage collection system and treatment facility including a permitted sewage lagoon.
- To provide a sewage system that avoids undesirable environmental impacts, especially on the physical and biological environments.

The Environmental Assessment also analyzed environmental issues related to air quality, surface and ground water, sediment control and storm water management, water supply, sanitary sewers, floodplain location, economic impacts, solid waste disposal, hazardous materials, cultural

resources, visual impact, threatened and endangered species, energy use, transportation, and noise. No lasting impact was found regarding the environmental analysis outside the manageable short-term construction issues.

Facultative lagoons in northern climates can experience odor problems when surface ice melts in springtime. The duration and intensity of this problem varies. Experience from similar facilities indicates no significant impact to air quality beyond the described springtime affect of the treatment process. The new lagoon, for residential sewage should cause minimal odor problems due to the distance from Akiak.

As a part of facility operation seasonal discharge to the ground surface may take place. The volume of the discharges will depend on actual operational parameters. The discharge provides no significant impact to surface water since discharge is treated, tested periodically, and the discharge is not directly into surface water.

Consultation

The preferred alternative was presented to the agencies, both state and federal, with direct interest and jurisdiction. The City of Akiak, the operator of the lagoon, with its local representation and presence has been directly involved in the development of the alternatives and selection of the preferred site.

Finding

The conclusion presented in the Environmental Assessment has been reviewed. The review authority for the NEPA process for the Indian Health Service (IHS) agrees with the conclusion. Therefore, a finding of no significant impact to the environment is issued.

In the event of an unforeseen discovery, the ANTHC through its oversight role and ANTHC through its lead manager role have agreed to stop construction activity in the area of the discovery and to notify the appropriate authority and the IHS. In addition ANTHC has agreed to notify the appropriate authority and the IHS if a change in the project or project scope occurs which could change this environmental determination or could adversely impact the environment.

Based on the available information in the Project Scope and the Environmental Assessment the proposed activity is approved.

Steve Bolan

Steve Bolan, P.E.
NEPA Review Officer
Alaska Area Native Health Service

February 26, 2003
Date

AKIAK SEWAGE LAGOON PROJECT
ENVIRONMENTAL ASSESSMENT

AN 99-P39, 01-M68, 01-Q28

October, 2002

(Minor revisions, February, 2003)

PREPARED BY: Dan V. Boccia, P.E.
Project Engineer
Alaska Tribal Native Health Consortium

Table of Contents

I. Introduction

A. Description of the Program:
The Alaska Native Tribal Health Consortium, Department of Environmental Health and Engineering has as its mission to involve and assist Alaska Natives to improve their health and safety through the provision of sanitation facilities. Through Public Law 86-121, 93-638, and 105-83, The ANTHC has assumed the management of the sanitation facilities construction program.

Akiak, Alaska is a Yu'pik community with a population of 309 (2000 Cencus). Existing community sanitation facilities consist of a water treatment plant with a watering point, community building with piped water and sewer disposal to a drain field and, residential honey bucket self-haul sewage disposal system and a landfill.

B. Need for the Proposed Action:
Adequate quantities of clean water and sewage disposal can be economically provided by the proposed project. The existing water and sewer facilities require the handling of raw sewage by residents, the storage of raw sewage on pathways and roadways, and the transport of raw sewage subject to spillage during transport.

Approximately 25 to 50 gallons of water is consumed per week by the average household in Akiak. This averages out to around 1.8 gallons per capita per day for domestic and hygienic needs excluding water consumption in the washeteria. Recommended hygienic practices are not possible with this low water use.

These deficiencies are address with a plumbed water and sewer system to each home.

II. Purpose of the Environmental Assessment:
The purpose of the Environmental Assessment is to explain actions that do not fall under the categorical exclusion during the environmental review process. The EA examines alternatives, and how the preferred impact the environment, and step that will be taken to mitigate the impact. This EA is to address the environmental impact of a seasonal discharge lagoon.

III. Project Environment:

A. Overview of the Surrounding Area:
Akiak is a Yup'ik community located 20 air miles northeast of Bethel on the Kuskokwim River. The topography of the area generally consists of low wetlands with small knolls and numerous small lakes, sloughs, and old river channels. Elevations within the community and in the immediately surrounding areas range from less than ten feet to more than 30 feet above mean sea level.

Akiak lies within the flood plain of the Kuskokwim River. The geology of the vicinity of Akiak and throughout the Kuskokwim Delta consists primarily of unconsolidated floodplain alluvium, silt and sand deposits, and reworked silts.

The Kuskokwim River is the principle fresh water body in the immediate surrounding area. The Kuskokwim River flows directly by the community.

Akiak is flooded to some extent annually, and is considered to have a high flood hazard. Flooding during spring breakup is caused by ice jams down river.

B. Description of the Project Site:
The project will construct a new sewage lagoon, access road, and force main in an undeveloped area northwest of the existing townsite.

IV. Action:

A. Description of Action:
The action constructed a 7.6 acre seasonal discharge lagoon. Sewage lagoons are generally employed as a means of economic and effective primary treatment in rural areas. Almost every community in western Alaska including Bethel, Kipnuk, Alukanuk, and Dillingham use lagoons for sewage treatment. Facultative lagoons, which combine aerobic and anaerobic activity, are the most common lagoons in northern climates. Bacteria and algae break down waste organics in suspension in an aerobic cycle, while settleable solids are decomposed under anaerobic activity.

In addition to the action, this project will upgrade community sanitation facilities to provide running water and sewer to individual homes. The project also consists of a piped water distribution and sewage collection system.

B. Alternatives to Action:

The alternatives considered are discussed below in detail. All the alternatives (except the no build alternative) involve mechanical devices and significant operation and maintenance requirements as opposed to sewage lagoons. The increased operation and maintenance costs and lower reliability of these types of systems make them generally infeasible for applications in bush Alaskan communities.

1. The no build alternative was considered and was not selected as the no build alternative does not address the need for sewage disposal for a plumbed water and sewer system.

2. Physio-chemical package sewage treatment plants are factory built systems which can produce almost any level of effluent quality desired. These types

of systems are generally pre-assembled and skid mounted, and are easily installed. A typical system treats wastewater by providing chemical coagulation, settling, absorption of soluble organics, filtration and disinfection. Because of the complexity of the system, operation and maintenance costs are generally higher than for other types of sewage treatment systems. The reliability and performance of these systems are highly dependent on the skills of the operator and effective operations and maintenance. Sewage sludge generated by the system may require additional treatment and dewatering prior to periodic disposal. The removal and disposal of sludge can be a difficult problem. Sludge must be removed from the clarifier, dewatered, and transported to the designated site for disposal. The treated effluent can be discharged directly to the ground or to an outfall in the river. Because of the complexity of this type of system and associated high operations and maintenance costs as compared to other viable wastewater disposal methods, package wastewater plants will not be further considered.

3. Activated sludge or extended aeration systems consist of an aerated tank in which biological treatment of sewage occurs. Blowers inject air into the tank to enhance the biological activity. The aeration tank is sized to provide adequate retention time to treat the sewage to an acceptable level. The sewage than passes into a clarifier where adequate retention time is allowed for the suspended solids to settle out. The settling process creates a sludge at the bottom of the clarifier. A portion of the sludge is returned to the bottom of the aeration tank to increase the population of the bacteria, and to speed up the reaction. Excess sludge waste is generated and must be periodically removed and disposed of using a similar process described for the physio- chemical package sewage treatment plant. The treated effluent can be discharged to the environment. The complexity and operation and maintenance costs for these types of systems are similar to those for the package treatment plant. This type of system is too complex and costly to maintain and will not be considered further.

V. Environmental Analysis:

A. Introduction:

An environmental analysis is being prepared for the project as the project will construct a new wastewater treatment facility with a direct discharge of treated sewage to land.

The sewage lagoon is designed with a wet area of approximately 7.6 acres. The height of the dikes is dictated by seasonal flooding and will be 24" above the recorded high water mark. The lagoon has a hydraulic capacity of 365 days at design capacity with a 10 year projected population. The lagoon will be discharged in the late fall as necessary to land held by the community specifically for this purpose. Vegetation on the land will provide secondary treatment. Discharge to tundra provides effective secondary treatment of lagoon effluents.

Season discharge of lagoons is permitted under a State of Alaska, Department of Environmental Conservation (DEC) General Permit.

B. Natural Asset Review:

1. Air Quality:
Hydrogen sulfide is the chemical most often associated with odors in lagoons. Odors are typically produced when anaerobic conditions are present, and are eliminated when aerobic conditions are attained. Aerobic conditions are not possible to obtain in the winter when the lagoons are ice covered. Odors are produced in the spring for generally a week when aerobic conditions are attained.

The lagoon is designed to operate at a 6' depth to minimize anaerobic conditions. The lagoon has been located at the end of the road to the landfill to maximize the separation distance to the community and still be on the road system.

The operation of heavy equipment during construction will degrade air quality with exhaust fumes. This will be a temporary and minor condition as the lagoon location is away from the community and receives unrestricted air circulation.

2. Surface Water including Wild and Scenic Rivers.
Navigable waterways in the area of this project include only the Kuskowim River. There are various lakes, ponds and sloughs in the area of the project. The lagoon footprint will affect a portion of one very small pond. Seasonal discharge areas will not directly impact these surface waters.

None of the navigable waterways are designated as Wild and Scenic Rivers.

3. Groundwater:
Ground water has been observed at 10' below the existing ground surface. The horizontal distance from existing community wells in addition to the presence of multiple layers of non-permeable clay above the top level of the aquifer will prevent the contamination of groundwater sources by the lagoon.

4. Sediment Control and Stormwater Management:
Sediment control and stormwater management issues will be addressed with erosion control measures. These measures include final 2.5:1 slope angles, erosion control fabric and salvaging organics and seeding of slopes to minimize erosion problems associated with lagoon construction.

Efforts will be made to minimize disturbing vegetation outside of the lagoon and the borrow areas to minimize erosion.

5. Water Supply:
The community's water is supplied by wells. Adhering to DEC regulations for lagoon construction should mitigate impacts to the community's water supply.

6. Sanitary Sewers:
Lagoon construction is to accommodate sanitary sewers. No sanitary sewers exist in Akiak at this time.

7. Solid Waste Disposal:
No long term impacts to solid waste disposal are expected.

8. Land Use:
Akiak is located in a floodplain and in wetland areas. Akiak is seasonally inundated during the spring when the Kuskokwim River breaks up and jams with ice. All development associated with this project will minimize disturbance to wetlands outside of the footprint of final structures, and U.S. Army Corp of Engineers approval has already been obtained for development in wetlands.

Floodplain development in Akiak cannot be avoided. Lagoon dikes will be constructed to a height to prevent inundation of the lagoon.

No coastal barriers, wilderness areas or agricultural lands will be affected by this project.

9. Hazardous Materials
No hazardous materials impacts are generated by this project.

10. Visual Impact:
The lagoon is substantial in size and will be recognizable from the air. The visual impact of the lagoon from the ground is expected to be minimal due to the flat topography of the area.

11. Endangered and Threatened Species:
The United States Fish and Wildlife Service has issued the ANTHC a letter (attached) stating that there are no listed species present in the vicinity of Akiak. The construction of the lagoon will have no effect on listed species or critical habitat.

12. Energy Use:

Energy use is expected to be higher due to the lagoon and associated facilities. The village has three, 3-phase generators consisting of 128kW, 138kW, and 200kW generators with full paralleling capability. The reported peak (winter) electrical demand for the village is 180kW.

The power plant generally operates with only a single generator running. With 466kW of generating capacity and a current peak load of 180kW, there is plenty of spare generating capacity to handle the additional load. The City has a new 150,000 gallon fuel storage facility.
Fuel is shipped in by barge and on the river when frozen. Emergency fuel supplies can be flown in as Bethel is a short distance from Akiak.

13. Transportation:
A temporary increase in freight and personnel to the community is expected due to construction of the lagoon and facilities associated with the lagoon.

14. Noise:
Additional noise is expected during construction of this project. Effects are minimal due to the location of the project, and temporary. Operation of the facility will not create any increase in noise in the community.

15. Socioeconomic:
A temporary increase in employment is expected with this project.

C. Cultural Asset Review:
An Archeology and Cultural Asset review report was produced in November, 2001 based on fieldwork conducted in the fall of 2001. The report concluded that "No historic properties or other cultural indicators were found in the proposed location s of the sewage lagoon, the borrow site, or the access road." The Alaska State Historic Preservation Officer issued a finding of "No Historic Properties Affected" on April 11, 2002.

VI. Conclusion:
The Environmental Assessment is being performed as this project will construct a new wastewater treatment facility with direct discharge of treated sewage to land. The construction of a sewage lagoon and facilities associated with the sewage lagoon are expected to degrade the environment in temporary and permanent manners. Actions will be taken to reduce the impact, as no better alternative is available for safe and economic sewage disposal. The sewage lagoon and associated facilities will provide a significant improvement to the environmental health of the community without a significant overall negative impact to natural and cultural resources in the area. The community supports this project. A finding of no significant impact is recommended.

Appendix A

Agencies and Persons Contacted:

1. Judith Bittner
   State Historic Preservation Officer

2. Chris Nunan
   State Department of Energy

3. Ellen Lance
   US Fish and Wildlife Service

4. Ivan Ivan
   Akiak Native Community

5. Jennifer Nolan Wing
   State of Alaska Division of Governmental Coordination

Boccia, Dan
From: Campbell, Chris
Sent: Thursday, September 19, 2002 9:06 AM
To: Dixon, Matthew
Cc: Boccia, Dan; Reitz, Dan; Griffith, Bill
Subject: FW: No Affect -- Communities

-----Original Message-----
From: Ellen_Lance@fws.gov [mailto:Ellen_Lance@fws.gov]
Sent: Wednesday, August 28, 2002 11:35 AM
To: Campbell, Chris
Subject: Re: No Affect -- Communities

Hi Chris,
I have reviewed all of the locations in which you indicated sanitation and health projects are proposed. I would like more detailed information for those projects proposed at Port Heiden and Chignik Lake. Port Heiden is only about a mile from the coast where thousands of Steller's eiders congregate late summer through spring. Chignik Bay also has hundreds of Steller's eiders wintering in the Bay. There is planned and has been large cumulative effects in the Bay. I am interested specifically in sewage outfall, current and projected as a result of the proposed projects.

As for the other villages please refer to the following (Consultation # 2002-0202):
No Listed Species Present
Our records indicate that there are no federally listed or proposed species and/or designated or proposed critical habitat within the action area of the following proposed projects. In view of this, requirements of section 7 of the Act have been satisfied for these projects and no further action by your agency is required. A copy of this letter should be kept with each project file as documentation of this consultation.
Mountain Village
Pitka's Point
Saint Mary's
Pilot Station
Russian Mission
Kasigluk
Tuluksak
Akiak
Kwethluk
Bethel
Napaskiak
Eek
Twin Hills
Aleknagik
New Stuyahok
Koliganuk
Pedro Bay
Tyonek
Tatitlek
Chenega

This letter relates only to federally listed or proposed species and/or

designated or proposed critical habitat under our jurisdiction. 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, Clean Water Act, National Environmental Policy Act, or Bald and Golden Eagle Protection Act.

We look forward to working with you and your consultants on these projects. If you have any questions, please contact me at (907) 271-1467. In future correspondences regarding this project please refer to consultation number 2002-0202.

Thanks

Ellen W. Lance
Endangered Species Program
USFWS/WAES
605 W. 4th Ave. Rm G-61
Anchorage, AK 99501
(907) 271-1467