

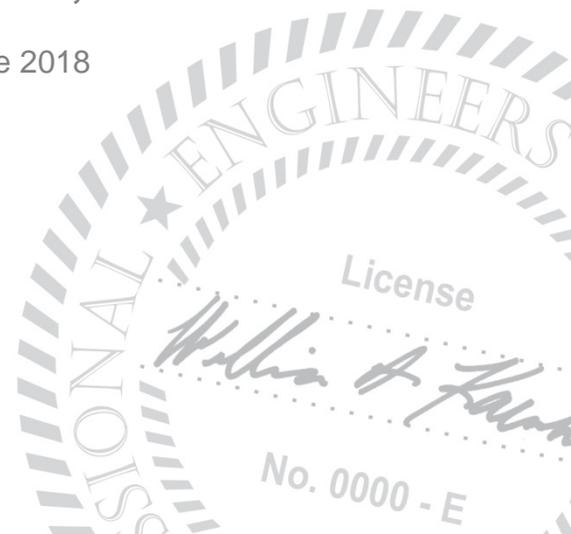


**AVENUES
NEIGHBORHOOD
WATER AND SEWER
IMPROVEMENTS**

**ENVIRONMENTAL
ASSESSMENT**

Bethel, Alaska

June 2018



AVENUES NEIGHBORHOOD WATER AND SEWER IMPROVEMENTS

Environmental Assessment

Prepared for:

City of Bethel
Post Office Box 1388
Bethel, Alaska 99559

In Conjunction with:

U.S. Department of Agriculture
Rural Development



Committed to the future of rural communities.

Prepared by:

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ACRONYMS

AAC	Alaska Administrative Code
ADCCED	State of Alaska Department of Commerce, Community, and Economic Development
AHRS	Alaska Heritage Resource Survey
amsl	above mean sea level
AKSHPO	Alaska State Historic Preservation Officer
APE	Area of Potential Effect
BMC	Bethel Municipal Code
City	City of Bethel
DEC	State of Alaska Department of Environmental Conservation
DOT&PF	State of Alaska Department of Transportation & Public Facilities
EFH	essential fish habitat
E.O.	Executive Order
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
IPaC	Information, Planning, and Conservation System
MBTA	Migratory Bird Treaty Act
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
PER	Preliminary Engineering Report
RD	Rural Development
USFWS	United States Fish & Wildlife Service
USDA	United States Department of Agriculture

1.0 PURPOSE AND NEED

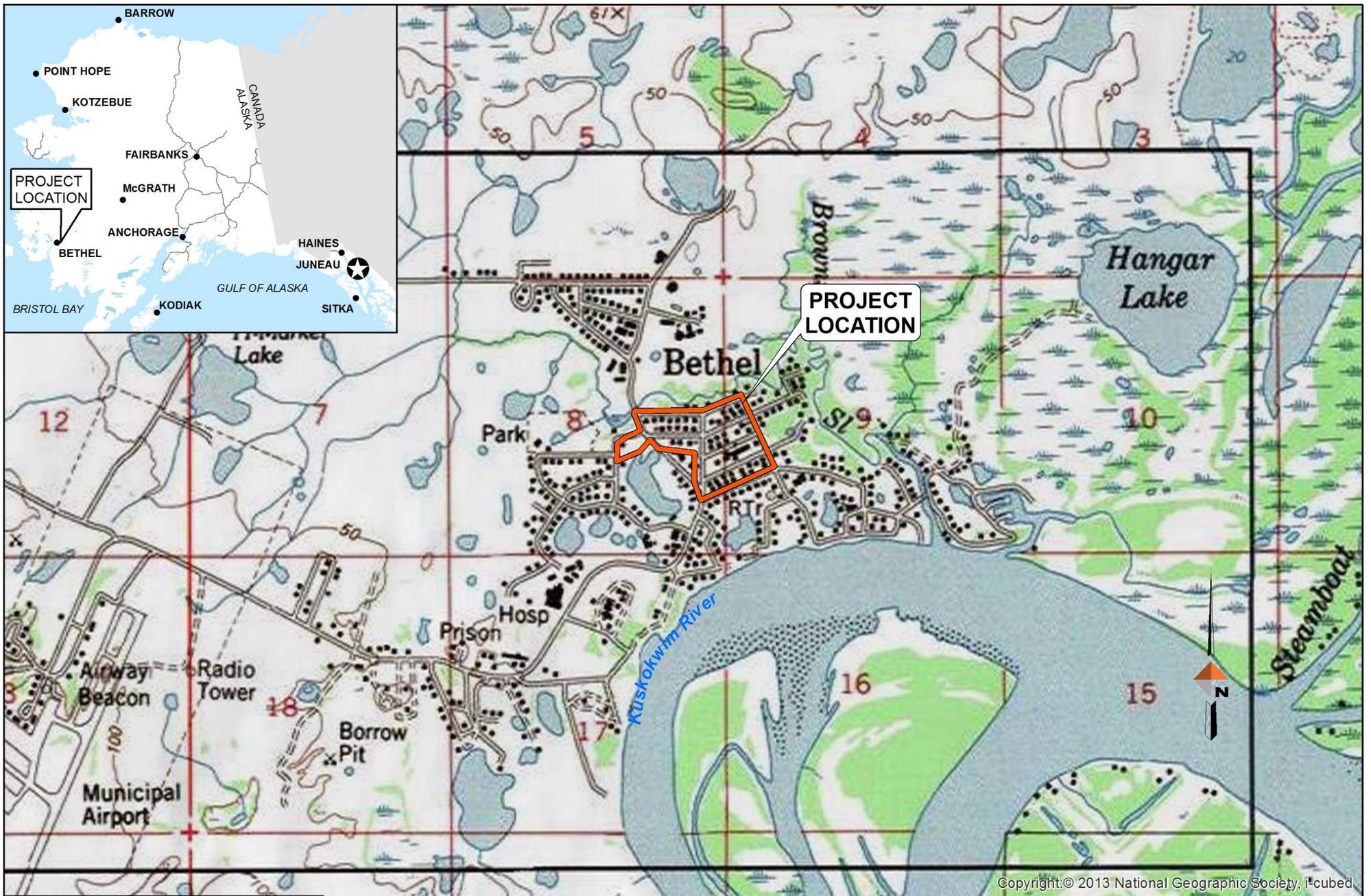
The City of Bethel (City), with support from the United States Department of Agriculture (USDA) Rural Development (RD), proposes to provide residences in “the Avenues” neighborhood with an improved water and sewer system.

Bethel is located on the shores of the Kuskokwim River at approximately 60.79° North and 161.75° West; Sections 3,4,5,6,7,8,9,10,15,16,17,18 of Township 8 North, Range 71 West, and Sections 1,2,3,10,11,12,13,14,15 Township 8 North, Range 72 West, Seward Meridian (U.S. Geologic Survey Quadrangle Bethel D-8). The community is located approximately 400 air miles west of Anchorage (Figure 1).

The City is seeking financial assistance from USDA’s Revolving Loan Fund Program (7 U.S. Code §1926(a)(2)(B)) to add piped water and sewer service to residences between 3rd Avenue and 7th Avenue between Ridgecrest Drive and Main Street, which consists of approximately 130 predominantly residential parcels.

1.1 Project Description

The project proposes to replace individual water and sewer flush and haul tanks by constructing an above ground piped water and sewer system tying into existing water and sewer mains. The system would be constructed in existing and proposed easements between property parcels or along roadsides. The proposed system would be constructed on pipe supports fastened to the ground with driven pile foundations or on wood sleepers fastened to the ground surface.



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Figure 1: Location Vicinity Map
 Avenues Neighborhood Water & Sewer Improvements
 Bethel, Alaska

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1.2 Purpose and Need

The purpose of the proposed project is to improve and protect human and environmental health and reduce homeowner and City costs by transitioning the Avenues neighborhood from individual residential and commercial flush and haul tanks to a piped network. The project will provide the Avenues neighborhood with an improved water and sewer system with the lowest life cycle costs.

The City currently delivers potable water and collects sewage from approximately 118 residences in the Avenues neighborhood. If all vacant lots were filled, this number would increase to approximately 130 residences. All residences in the neighborhood currently have water and sewage tanks ranging in size from 500 to 3,000 gallons. The current system requires sewage retention at residences for prolonged periods of time, which increases the likelihood of spillage. Delivering potable water and collecting sewage from individual tanks is more expensive for the homeowner and less efficient for the City to maintain and operate than the proposed piped water and sewer system. Additionally, the truck-haul system introduces inherent dangers due to the increased potential for vehicle accidents and increased traffic. The trucks often exceed local weight limits and can have mobility issues in arctic road conditions.

2.0 ALTERNATIVES EVALUATED INCLUDING THE PROPOSED ACTION

Various alternatives were considered and analyzed in detail based on cost and need in the Preliminary Engineering Report (PER). The following action is proposed.

2.1 Proposed Action

The proposed action is the PER-recommended single-phase build alternative. The recommended course of action is to provide piped water and sewer service in a single phase to the residents and commercial entities located in the Avenues Neighborhood shown in Figure 2.

The proposed water main will tie into the existing water main near the Youth Center on Osage Street. It will then follow the existing sewer main northeast and cross Ridgecrest Drive. The water main will then continue north along Ridgecrest Drive to the easement located between 6th and 7th Avenue, and follow the easement to cross Willow Street and continue along the easement until Main Street. The water main will then continue southeast to cross to 5th Avenue, 4th Avenue, and then go southwest along the full extent of the easement between 3th and 4th Avenue until Willow Street. It will then go north along Willow Street to cross 4th Avenue. The main will then go northeast along the southern side of 5th Avenue until Main Street, at which point it will go north to cross 5th Avenue to the easement between 5th Avenue and 6th Avenue. The main will go west along the easement to cross Willow Street until Ridgecrest Drive, at which point it will follow Ridgecrest Drive northwest to cross Ridgecrest Drive and follow the existing main path to tie in to the existing water main near the Youth Center on Osage Street.

The proposed sewer main will branch off from the existing sewer main that runs perpendicular to the easement located between 6th and 7th Avenue to extend east to Ridgecrest Drive and west to cross Willow Street and continue along the easement until Main Street.

The proposed sewer main will also tie in to the existing main near Kilbuck Lift Station and go south to cross 4th Avenue to turn southwest to go the full extent of the easement between 3rd and 4th Avenue.

Wastewater from each residence will be pumped to the sewer mains via small individual lift stations. A space will be required for the lift station at each residence. Electricity would be provided to the lift station electrical controls and pumps from each house.

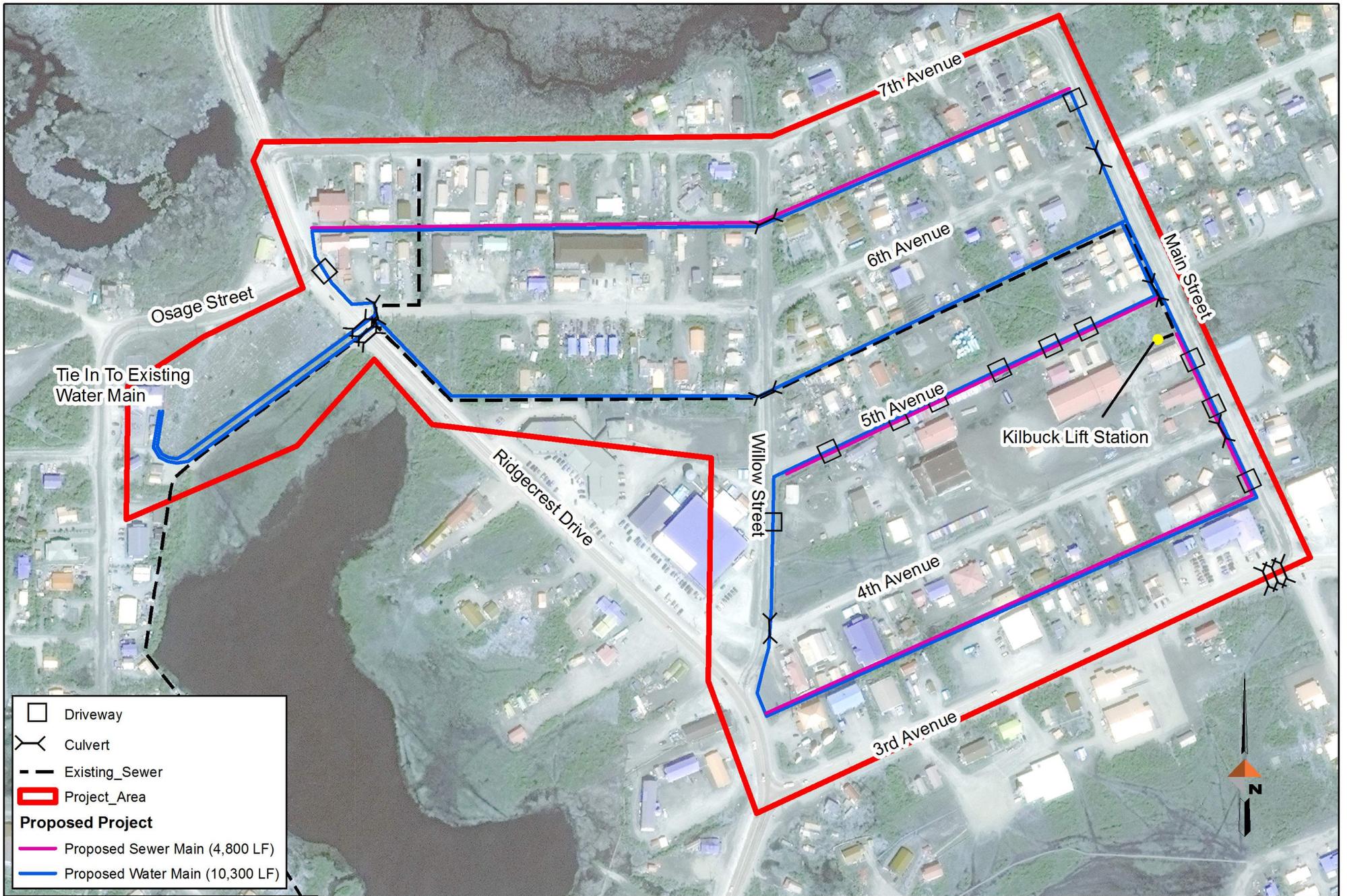


Figure 2: Proposed Project
 Avenues Neighborhood Water & Sewer Improvements
 Bethel, Alaska

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2.2 Other Alternatives Evaluated

2.2.1 Alternatives Considered but Dismissed

At least four other alignments to provide piped water and sewer to the Avenues were considered, with just one alternative considered but dismissed (Table 1). Design considerations were based on main piping lengths, alignment obstructions, and culverts and driveways that would require excavation. The preferred alternative was selected because it has the lowest capital cost. A multi-phased approach to design was also considered. A three-phase approach was considered in which each phase expanded the service area in discrete amounts.

A temporary water main along Willow Street would need to be installed to ensure recirculation in the first phase, but would be abandoned in the subsequent phase. Additionally, a multi-phase approach would require the purchase of water trucks to replace the existing aging water truck fleet to meet the short-term needs of the project area. The multi-phase approach was dismissed in favor of the single-phase approach due to the administrative savings associated with a single phase, as well as the fact that replacement water trucks are not necessary for short-term needs if construction is completed in one phase.

Table 1: Alternatives Considered but Dismissed

Alternative Name	Reason Alternative Was Dismissed
Multi-phase Approach	Cost prohibitive as new trucks would have been necessary

2.2.2 Other Alternatives Considered

2.3 No Action Alternative

The No Action Alternative would continue using the existing haul system for the Avenues and residents would see no change in cost, quality, or quantity of water to their homes. The City would continue to replace water and sewage trucks every fifteen years, and continue to deliver water and collect sewage as they currently do. This alternative would result in minimal change to operations and practice.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Addressed in this chapter are the affected environment and baseline conditions of the physical, biological, social, and economic resources potentially impacted as a result of the proposed project. Effects are determined by the level of impact and are discussed in terms of direct, indirect, or cumulative. Direct effects (impacts) are those which are caused by the project action and occur at the same time and place. Indirect effects are caused by a project action and are later in time or farther removed in distance, but are still reasonably foreseeable. Cumulative effects are those resulting from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. Table 2 summarizes the findings of this chapter.

Table 2: Comparison of Alternatives

Affected Resource Category	Proposed Action	No Action Alternative
Land Use	Compatible	Compatible
Floodplains	Unlikely to affect	Unlikely to affect
Wetlands	Unlikely to affect	Unlikely to affect
Water Resources	Reduce risk of water quality decrease from runoff	Risk of water quality decrease from runoff
Coastal Resources	Not applicable	Not applicable
Biological Resources	Minor effect	Unlikely to affect
Historic and Cultural Properties	No adverse effect	No adverse effect
Aesthetics	Unlikely to affect	Unlikely to affect
Air Quality	Unlikely to affect	Unlikely to affect
Socioeconomic Issues/Environmental Justice	Unlikely to affect	Unlikely to affect
Human Health and Safety	Unlikely to affect	Unlikely to affect
Corridor Analysis	Not applicable	Not applicable

3.1 Land Use

Ownership and land use for the area were determined from land use and planning documents:

- City of Bethel Comprehensive Plan 2035 (City 2011)

3.1.1 *Affected Environment*

General Land Use

Land within Bethel is generally owned by the City the Bethel Native Corporation, and other private lands including native allotments (City 2011). Land use within Bethel is classified as Open Space, Public Lands and Institutions, Residential, Industrial, General Use, and Preservation. The project area consists of land in the General Use and Public Lands and Institutions districts. The General Use district is intended to allow a mix of compatible residential and commercial uses (Bethel

Municipal Code [BMC] 18.36.010) and the Public Lands and Institutions District is intended to apply to undeveloped public lands not dedicated for open space, and public and quasi-public institutional uses, including government office buildings, facilities, and existing land reserves for public and institutional use (BMC 18.24.010).

Important Farmland

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

Formally Classified Lands

Formally classified lands are those administered by federal, state, or local agencies with special protection granted through formal legislative designation. No formally classified land or federal lands exist within Bethel municipal limits.

3.1.2 Environmental Consequences

3.1.2.1 Proposed Action

The proposed action would be constructed in existing and proposed easements between property parcels or along roadsides. The proposed water and sewer system will promote existing and future uses in these districts and is consistent with the 2011 City Comprehensive Plan.

3.1.2.2 No Action Alternative

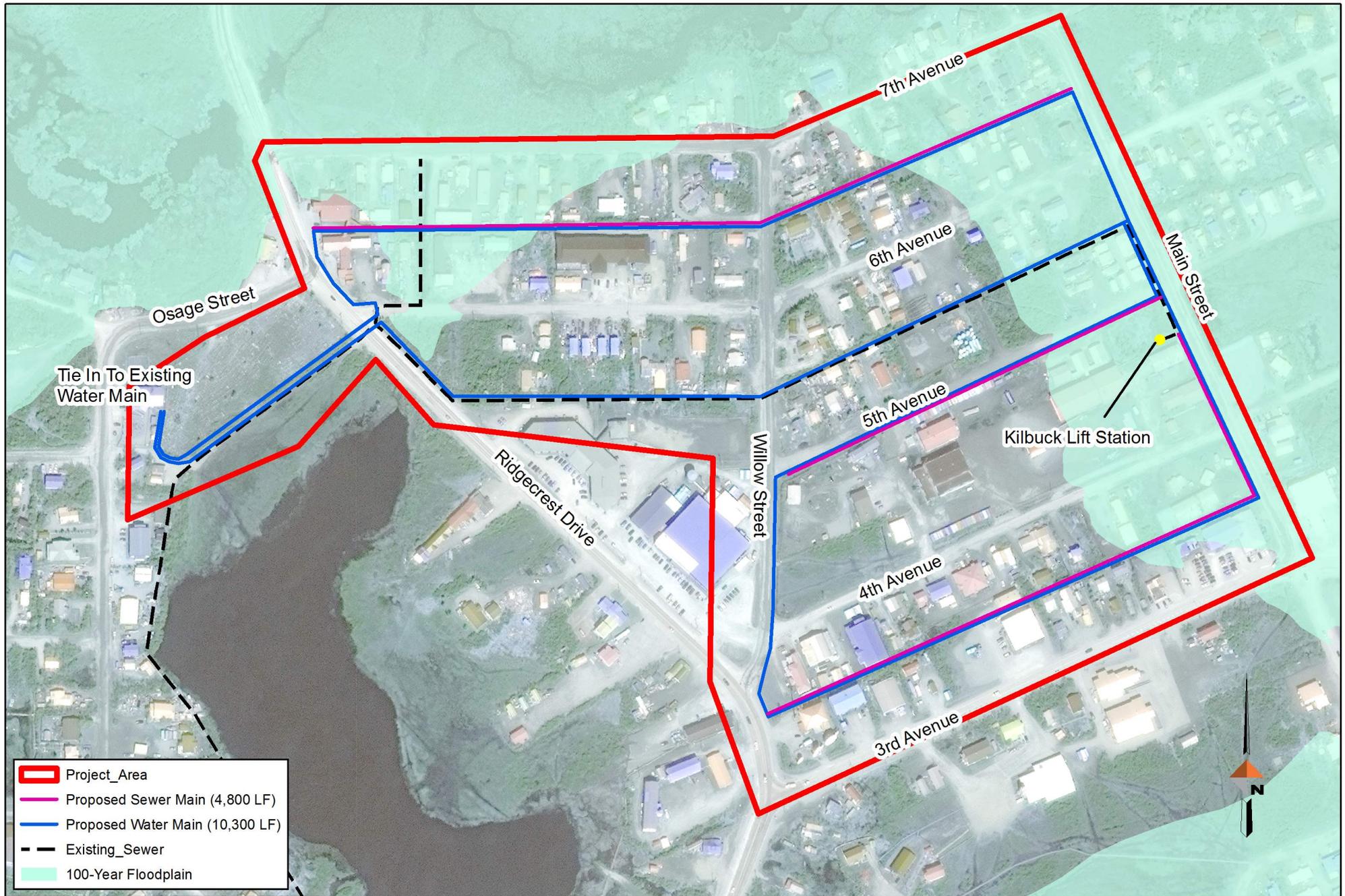
The no action alternative would leave the existing infrastructure in place, which is also consistent with current land uses.

3.2 Floodplains

Per *Executive Order (E.O.) 11988, Floodplain Management*, federal agencies are directed to avoid actions, to the extent practicable, which will result in the location of facilities in floodplains and/or affect floodplain values. Additionally, the USDA Departmental Regulation 9500-3, *Land Use Policy*, discourages the unwarranted alteration of floodplains, unless there is no practicable alternative action to avoid the direct or indirect encroachment on floodplains.

3.2.1 Affected Environment

The Federal Emergency Management Agency (FEMA) has mapped flood hazards for Bethel related to the Kuskokwim River floodplain. According to FEMA Map Panel 0201040042C (revised 8/25/2009) the base flood elevation of the floodplain in Bethel is 17 feet above mean sea level (amsl) (Figure 3).



- Project Area
- Proposed Sewer Main (4,800 LF)
- Proposed Water Main (10,300 LF)
- Existing Sewer
- 100-Year Floodplain

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Figure 3: Floodplains
 Avenues Neighborhood Water & Sewer Improvements
 Bethel, Alaska



3.2.2 Environmental Consequences

3.2.2.1 *Proposed Action*

The proposed action consists of modifying existing structures or installing new facilities within the 100-year floodplain.

Excavation is planned at approximately 8 locations totaling approximately 800 square feet to place the proposed water and sewer pipes through existing roadway and driveway embankments. No excavation is planned for the Kilbuck lift station. The extent of floodplain impacts related to excavation is approximately 800 square feet. Approximately 480 piles will be placed within the floodplain extent, resulting in a total of 1,280 square feet of project activity within the floodplain.

The structures within the floodplain include small piles installed every 10 feet to secure the pipes, approximately three feet from the ground. The project also includes a small lift station. During floods, debris could get caught on the piles, and cause floodwaters to backup. The modification of the floodplain is small (approximately 480 square feet of piles) and given the placement of the project in a well-developed area with multiple buildings, out-buildings, roads and other development is not likely to create a significant impact to the ability of floodwaters to move freely. No additional floodplain development is anticipated as a direct or indirect result of the project as the project is serving existing structures.

Per Bethel Municipal Code (Title 15.08.090 Water and Sewer Systems),

- A floodplain permit will be obtained from the City
- The piped water and sewer improvements will be designed and constructed in a manner to protect against floodwaters. The pipes will be fastened to the ground with supports or anchors, and will be kept as close to the ground as possible to allow debris to float over in a flood event.
- In areas where the water and sewer pipes follow a roadway embankment- stretches of the pipes may be buried to minimize the damming/obstructing effect.
- The residential and commercial sewage lift stations will be constructed in a waterproof manner- restricting sewage from spilling out, or flood waters from pouring in. The lift stations will also be fastened to the ground with anchors to minimize the potential for them moving in flood events.
- During design of these improvements the project area will be surveyed and actual elevations will be established in relation to the 100 and 500-year flood elevations. Specific improvements will be solidified during the design process.

In accordance with guidelines prepared by the U.S. Water Resource Council to implement E.O. 11988 and E.O. 13690, an eight-step decision making process (Part 1970, Subpart F) was completed, public notices were distributed, and outreach to appropriate floodplain regulators was conducted. All documentation related to floodplain impacts are included in Appendix A.

The Preliminary Public Notice for Potential Impacts to Floodplains and Wetlands was posted in the Bethel Post Office from June 18, 2018 to July 2, 2018 and published in the Delta Discovery on June 27, 2018. It is included in Appendix A.

3.2.2.2 *No Action Alternative*

Existing structures and facilities are located within the 100-year floodplain.

3.3 Wetlands

Per *E.O. 11990, Protection of Wetlands*, federal agencies are instructed to avoid to the extent possible, the long-term and short-term adverse impacts associated with the destruction or modification of wetlands, and to avoid direct or indirect support of new construction in wetlands whenever there is a practicable alternative. Additionally, the USDA's Departmental Regulation *9500-3, Land Use Policy* discourages unwarranted wetland alteration and requires alternatives or minimization efforts whenever wetland impacts are unavoidable.

3.3.1 Affected Environment

A review of the United States Fish & Wildlife Service (USFWS) National Wetlands Inventory showed no wetland information for the region. However, the project area is within the Subarctic Coastal Plain ecoregion (Gallant, et al 1995), which is characterized by low relief, the predominance of wetlands, and braided or meandering streams and rivers. Permafrost is widespread and vegetative cover generally consists of wet graminoid herbaceous communities. Therefore, wetlands are likely present in undeveloped areas.

3.3.2 Environmental Consequences

3.3.2.1 *Proposed Action*

A total of 1,600 piles are planned for the entire project, with each pile approximately 1 square foot. Approximately 300 piles are planned within areas identified as undisturbed vegetation. As excavation is needed only to cross existing driveways or roads, which are comprised of gravel fill, minor wetland impacts total 300 square feet.

Prior to project construction or ground-disturbing activities within naturally vegetated areas, authorization for fill in wetlands would be obtained. The City currently administers a General Permit (POA-2016-476), issued by the United States Army Corps of Engineers per Section 404 of the Clean Water Act, that authorizes work in wetlands. This project is anticipated to qualify for this general permit, but also qualifies for a nationwide permit for utility lines (#12) and would not require a Pre-Construction Notification or mitigation.

In accordance with guidelines prepared by the U.S. Water Resource Council to implement E.O. 11990, an eight-step decision making process (Part 1970, Subpart G) was completed, public notices were distributed, and outreach to appropriate wetland regulators was conducted. All documentation related to wetland impacts are included in Appendix A.

The Preliminary Public Notice for Potential Impacts to Floodplains and Wetlands was posted in the Bethel Post Office from June 18, 2018 to July 2, 2018 and published in the Delta Discovery on June 27, 2018. It is included in Appendix A.

3.3.2.2 *No Action Alternative*

The no action alternative would not impact wetlands.

3.4 Water Resources

3.4.1 Affected Environment

The source of potable water is groundwater via the City Subdivision Water Treatment Plant, and the Bethel Heights Water Treatment Plant. A search of the Environmental Protection Agency's (EPA) drinking water mapping application indicates there are no impaired drinking water sources in Bethel. A search of EPA's sole source aquifers indicates there are no such resources in Bethel. The State of Alaska Department of Environmental Conservation (DEC) has identified drinking water protection areas based on approximate groundwater or surface water travel times. The project area encompasses Zones A and B provisioned protection areas (Appendix B).

3.4.2 Environmental Consequences

3.4.2.1 Proposed Action

The proposed alternative would not affect sole source aquifers or impaired drinking water sources. The proposed action would decrease the likelihood of sewage spills and thus are anticipated to improve water quality in general.

3.4.2.2 No Action Alternative

The no action alternative would not affect sole source aquifers or impaired drinking water sources. The no action alternative would maintain an elevated risk of sewage spills, which may generally decrease water quality within Zones A and B from runoff/infiltration.

3.5 Coastal Resources

The Coastal Zone Management Act of 1970 is intended to protect both freshwater and marine coastal areas from environmental degradation. It applies to all lands on the boundary of any ocean or arm thereof, and the Great Lakes. The Coastal Barrier Resources Act and the Coastal Barrier Improvement Act only applies to selected geographic areas designated as "Coastal Barrier Improvement Act System Units." As of July 1, 2011, Alaska withdrew from the voluntary National Coastal Zone Management Program. Additionally, no work is proposed along any coastline, therefore this resource was not evaluated further.

3.6 Biological Resources

As discussed in Section 3.3 Wetlands, Bethel is located within the Subarctic Coastal Plain ecoregion (Gallant, et al 1995), which is characterized by low relief, the predominance of wetlands and braided or meandering streams and rivers. Permafrost is widespread and vegetative cover is generally wet graminoid herbaceous communities.

3.6.1 Affected Environment

General Fish and Wildlife

The Magnuson-Stevens Fisheries Conservation and Management Act (1976) defines essential fish habitat (EFH) as "...waters and substrate necessary to fish for spawning, breeding, feeding, or growth or maturity." According to the National Oceanic and Atmospheric Administration, online

database, there is no EFH or Habitat Areas of Particular Concern in the waterbody nearest the proposed project area: Browns Slough.

A review of the Alaska Department of Fish & Game's anadromous waters mapper indicates Brown's Slough is anadromous (335-10-16600-2621) for sheefish and whitefish. No marine mammals are within the Bethel area. The proposed project would be confined to areas next to previously developed areas within city limits, in already fragmented habitats.

ESA-Listed Threatened and Endangered species

A search of the USFWS Information for Planning and Conservation (IPaC) online database indicates there are no threatened or endangered species within the proposed project limits and the resource was not evaluated further (Appendix C).

Migratory Bird Treaty Act

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918. In 1972, supplemental treaties expanded the MBTA scope to include bald eagles and other raptors. As such, the MBTA prohibits the taking of any migratory bird, their nests, or their eggs.

IPaC identifies 13 species of migratory birds known to occur within the proposed project limits. USFWS-recommended vegetation clearing avoidance window is May 5 to July 25.

Invasive Species

Per *E.O. 13112*, invasive species are defined as alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health. By law, federal agencies are required to prevent the introduction of invasive species, provide for their control, and minimize the economic, ecological, and human health impact attributed to invasive species.

Marine Mammal Protection Act

No in-water work is proposed; as such, impacts to marine mammals as a result of the proposed project are not anticipated, and the resource was not evaluated further.

3.6.2 Environmental Consequences

3.6.2.1 Proposed Action

No in-water work is proposed; as such, impacts to marine mammals, anadromous waters, and Brown's Slough are not anticipated. The project is not anticipated to bisect, fragment, or adversely affect wildlife habitat.

The proposed action would disturb 7,300 square feet of previously disturbed lands. Disturbed areas would be stabilized to prevent the introduction and spread of invasive species. Removal of shrubs and trees would occur outside of the USFWS migratory bird window (May 5 to July 25).

3.6.2.2 No Action Alternative

The no action alternative would not require land disturbance and would not impact biological resources within the review area.

3.7 Historic and Cultural Properties

Provisions under Section 106 of the National Historic Preservation Act require federal agencies to consider potential effects to eligible properties as a result of any proposed project activity. Additionally, outlined under the Archeological Resources Protection Act, archeological site information is confidential and disclosure of such information is exempt from requests under federal and state freedom of information laws.

3.7.1 Affected Environment

The Area of Potential Effect (APE) encompasses direct impact areas where ground disturbing activities may occur, staging areas temporarily disturbed during construction, and a 500-foot buffer to evaluate potential indirect impacts (Figure 4).

A search of the Alaska Heritage Resource Survey (AHRS) was conducted April 16, 2018 to identify previously recorded sites in and adjacent to the APE. The APE has been previously disturbed by construction of alleyways and existing water and sewer tanks. One property listed on the National Register of Historic Places (NRHP) is located on 3rd Avenue, south of the southernmost east-west run. Six additional buildings are recorded in the AHRS, but have not been evaluated for eligibility for the NRHP.

Review of aerial photographs, by USDA-RD, show no structures within the APE and no predominate land features which would lend themselves to historic, cultural, or subsistence use.

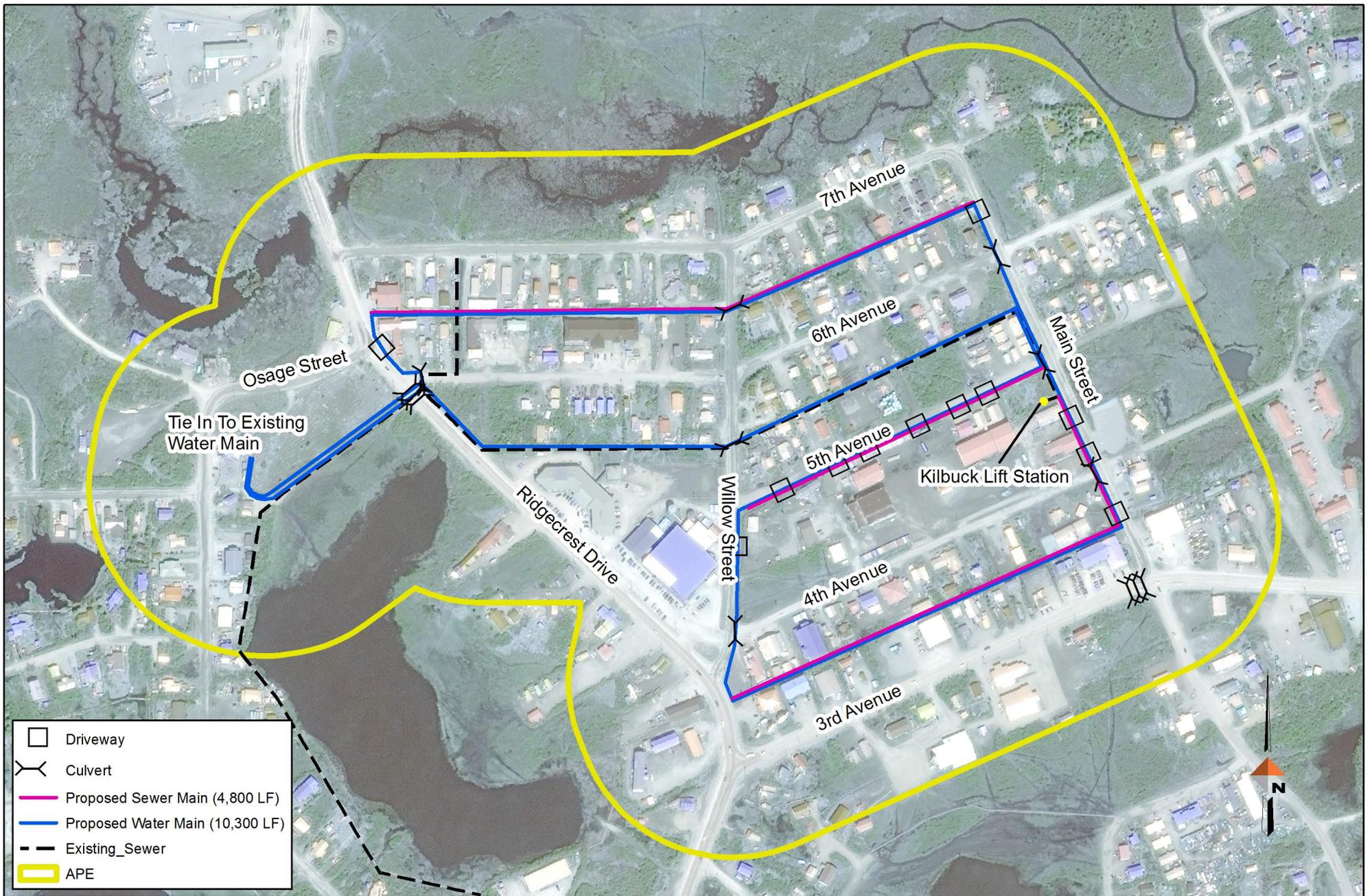


Figure 4: Project APE
 Avenues Neighborhood Water & Sewer Improvements
 Bethel, Alaska

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3.7.2 Environmental Consequences

3.7.2.1 *Proposed Action*

The project impacts to subsurface sediments would be limited to supports for the piping. DOWL's finding and recommendation is that there would be no effects to buried historic properties within the APE due to minimal subsurface impacts, and the lack of previously recorded sites within the APE. Although one historic property is located within the APE, the project would not have any direct effects on the building. Construction would occur adjacent to the historic property but will not touch the structure. Construction would create increased dust and noise in the APE. The effects of this action would be short-term and not alter the location, setting, design, materials, workmanship, feeling, or association or otherwise create adverse effects to the historic property. No adverse effects to historic properties are anticipated from the project. Correspondence with the Alaska State Historic Preservation Officer (AKSHPO) is in Appendix D.

3.7.2.2 *No Action Alternative*

The no action alternative would have no impacts to historical, cultural, or subsistence uses.

3.7.2.3 *Mitigation*

Should archeological resources be discovered during the course of the project, work would be paused in the area of the discovery until the resources have been evaluated in terms of the NRHP, in consultation with AKSHPO.

3.8 **Aesthetics**

Aesthetic effects examine the extent to which the proposed development contrasts with the existing environment, architecture, historic or cultural setting, or land use planning.

3.8.1 Affected Environment

Land surrounding the project is primarily developed residential and institutional buildings.

3.8.2 Environmental Consequences

3.8.2.1 *Proposed Action*

The structures and facilities in the proposed action would not change the aesthetics of the area, and are unlikely to alter the visual characteristics of the existing natural environment.

3.8.2.2 *No Action Alternative*

The no action alternative would not change the appearance to the existing structures and facilities, and would not affect the aesthetics of the area.

3.9 **Air Quality**

The Clean Air Act is a comprehensive federal law which authorizes the EPA to establish National Ambient Air Quality Standards to protect public health and public welfare, and to regulate the

emissions of hazardous air pollutants, through Section 176(c) of the Clean Air Act, as amended in 1990.

3.9.1 Affected Environment

Per the Alaska Administrative Code (AAC) 18 AAC 50.15, Bethel is considered a Class II area allowing moderate increases in particulate matter, sulfur oxides, carbon monoxide and other air pollutants as designated by the State. Impacts to air quality during construction are anticipated to be minimal and temporary.

3.9.2 Environmental Consequences

3.9.2.1 Proposed Action

No long-term impacts to air quality are anticipated.

3.9.2.2 No Action Alternative

No long-term impacts to air quality are anticipated.

3.10 Socio-Economic Issues/Environmental Justice

E.O. 12898 requires the consideration of environmental justice issues during the Agency's environmental review process regarding minority populations and low-income populations. Environmental justice is the fair treatment and meaningful involvement of all people of all races, color, origin, or income with respect to development, implementation, and enforcement of environmental laws.

3.10.1 Affected Environment

As of 2010, the City has approximately 6,080 residents, 1,896 total households, and 1,253 family households. (State of Alaska Department of Commerce, Community, Economic Development [ADCCED] 2018).

As the regional hub for surrounding villages in the Yukon-Kuskokwim Delta, City employment comes from transportation, trade, government, utilities, construction, and institutions (professional/health/education). Healthcare is the leading industry, followed by Education and Transportation (City 2011) There are 166 residents who held fisheries permits. The median household income is \$78,190, median family income is \$77,321, and per capita income is \$31,160. An estimated 12.3 percent of all residents have incomes below the poverty level (ADCCED 2018). Approximately 66 percent of the population is Alaska Native. The average household size is 3.04.

Piped residents pay \$176.11/mo. for water service and \$49.86/mo. for sewer service, or \$225.97 total per month. The average hauled customer pays \$350/mo. for both services. Rates are not anticipated to increase as a direct result from the project.

The piped water and sewer system serves approximately 175 homes, mostly near the developed area of town and the schools. There are roughly 1,600 hauled water and sewer customers served by the City hauled service fleet of water and sewer trucks. In contrast, only about 400 buildings have piped service.

3.10.2 Environmental Consequences

3.10.2.1 Proposed Action

The proposed action would improve the function of the services provided to the Avenues neighborhood and would not increase costs for these services to residents. This action would not have a disproportionate impact on minority or low-income populations. Owners of tanks that become obsolete as a result of the project are not compelled to remove or dispose of them; it is their discretion.

3.10.2.2 No Action Alternative

The no action alternative would continue to provide the same function of services to the City and would operate at the same cost. This action would not have a disproportionate impact on minority or low-income populations.

3.11 Miscellaneous Issues

Noise

The proximity of the construction activities and operations as a result of the project to other land uses can produce sounds that could create significant noise impacts for proximal sound receptors (e.g. schools, hospitals, residences). Typically, noise is defined as unwanted sound.

3.11.1 Affected Environment

Sources of noise in the City are from the airport, and from operations of boats and land vehicles.

3.11.2 Environmental Consequences

3.11.2.1 Proposed Action

Construction activities would increase noise from the use of heavy equipment. These impacts would be isolated and temporary, limited to construction areas and for the duration of the project. The proposed action would not have a long-term impact on sensitive sound receptors.

3.11.2.2 No Action Alternative

The no action alternative would not have an impact on sensitive sound receptors.

Transportation

3.11.3 Affected Environment

Bethel is connected to other communities by air and water; there are no roads into the community. Passengers arrive mostly by air. The network of local roads provides access throughout the town and to some subsistence fishing and recreation sites. The road network is largely unpaved.

3.11.4 Environmental Consequences

3.11.4.1 Proposed Action

The proposed action would not change local travel patterns, or increase travel distances to access public facilities. During construction access control would need to be implemented to provide safe access to residential, commercial, and public facilities. These impacts would be temporary. Overall, there would be no impact to transportation in the City.

3.11.4.2 No Action Alternative

The no action alternative would have no impact on local transportation routes.

3.12 Human Health and Safety

Electromagnetic Fields and Interference

3.12.1 Affected Environment

The City Utility Corporation is a private utility that uses diesel generators to produce up to 13,600 kilowatts. There are now several small wind turbines in Bethel.

3.12.2 Environmental Consequences

The proposed project would not alter the generation, transmission, or use of electrical power. Therefore, this was not evaluated further.

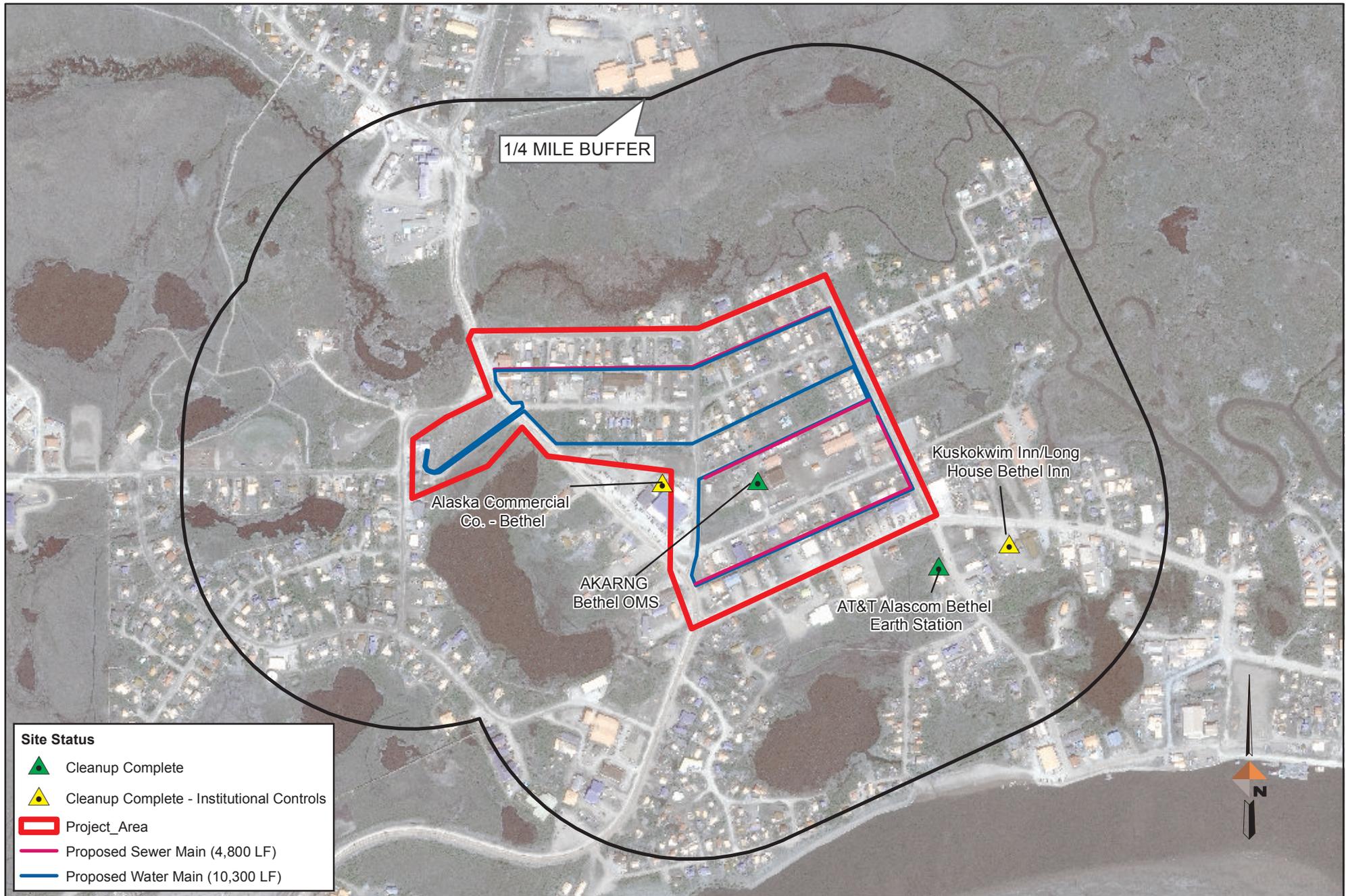
Environmental Risk Management

The National Environmental Policy Act (NEPA) requires all applicants for federal financial assistance to be reviewed for, among other things, any risks to health and safety. Environmental due diligence actions overseen by the agency are related to hazardous substances and waste, and petroleum waste products – hereafter referred collectively as “hazardous materials.” Due diligence geared toward identifying any releases of hazardous materials that may impact a borrower’s real property or operations, and thereby create potential legal and financial risks.

There are three levels of environmental due diligence; transaction screen process, Phase I environmental site assessment, and Phase II environmental site assessment. The agency will not normally conduct environmental due diligence for grant-only applications, unless it comes to the attention of the agency that a hazardous materials problem may exist.

3.12.3 Affected Environment

The DEC contaminated sites mapper and database was reviewed on May 15, 2018, and four sites were identified within 0.25 miles of the project area (Figure 5) (Table 3) (Appendix E).



Site Status

- ▲ Cleanup Complete
- ▲ Cleanup Complete - Institutional Controls
- Project Area
- Proposed Sewer Main (4,800 LF)
- Proposed Water Main (10,300 LF)



Figure 5: DEC Contaminated Sites
Avenues Neighborhood Water & Sewer Improvements
Bethel, Alaska

PROJECT	1529.50118.01
DATE	Jun 12, 2018



Table 3: DEC Contaminated Sites Within 0.25 miles of the Proposed Action

Site Name	Hazard ID	Location	Status	Distance from Project
Alaska Commercial Co	2109	135 Ridgecrest Drive	Institutional Controls	Appx 200 feet
AKARNG Bethel OMS	3049	470 4 th Avenue	Cleanup Complete	Appx 200 feet
Kuskokwim Inn/Long House Bethel Inn	3206	752 Third Avenue	Institutional Controls	Appx 600 feet
AT&T Alascom Bethel Earth Station	3770	265 Main Street	Cleanup Complete	Appx 450 feet

3.12.4 Environmental Consequences

3.12.4.1 Proposed Action

The proposed action would include approximately 7,200 square feet of excavation activities and 160 square feet of driven piles – all within existing disturbance. None of the sites are active and the nearest site with institutional controls is the Alaska Commercial Company store, which is approximately 200 feet from the project. The project is not anticipated to include activities within the property boundaries of this DEC identified site or de-watering on adjacent properties, therefore the project will not require approvals from DEC.

Excavation and construction activities would not likely encounter contamination from off-site sources, as known sites are located sufficient distance and/or down gradient from the proposed activities.

During construction, if contaminated soil, groundwater, or free phase petroleum product is encountered and determined to be associated with a known contaminated site, the construction contractor or other project representative shall contact the appropriate DEC staff to ensure that contamination in the corridor is managed and documented as deemed necessary.

3.12.4.2 No Action Alternative

The no action alternative would not involve dewatering or soil-disturbing activities, therefore the risk of encountering contamination from off-site sources.

3.13 Corridor Analysis

Corridor analysis was not conducted as the project extends connections from an established service corridor to existing users.

4.0 CUMULATIVE EFFECTS

The cumulative effects assessment considers the effects of the proposed action in light of the effects of past, present, and reasonably foreseeable future actions occurring in the area affected by the proposed action. While the impacts of each project may be minor when viewed in the individual context of direct effects, when combined they may cause a significant impact (Table 4).

Due to the project's localized and minor effects, the project area serves as the spatial extent for cumulative impacts with only affected resources evaluated.

Past Actions: An existing sewer line (approximately 4,000 linear feet), water main and lift station within the project area. The Kilbuck School, and approximately 3 residences and 2 commercial business are serviced by the existing sewer main.

Present Actions: No other actions are under development or construction within the project area.

Proposed Action: The proposed action would disturb approximately 7,400 square feet of previously disturbed land.

Future Actions: Based on a review of existing transportation plans, land use plans and other master plans, no reasonably foreseeable future actions are planned within the project area.

Cumulative: Past, present, and future projects will not exceed minor effects.

Table 4: Qualitative Description of Cumulative Effects to Affected Resources

Affected Resource Category	Past Action	Present Action*	Proposed Action	Future Action*	Cumulative Effect
Floodplains	Fill of floodplains as a result of current development (approximately 1,000 linear feet within the 100-year floodplain in the project area)	N/A	Approximately 2,400 square feet within the 100-year floodplain.	N/A	Minor effects
Wetlands	Minor fill of wetlands	N/A	Approximately 160 square feet within wetlands	N/A	Minor effects
Water Resources	Minor decrease of water quality from runoff	N/A	Minor improvement of water quality	N/A	Minor effects
Biological Resources	Minor reduction of habitat	N/A	Minor reduction of habitat	N/A	Minor effects
Historic and Cultural Properties	Beneficial effects from preservation activities	N/A	No adverse effect	N/A	No adverse effect
Aesthetics	Minor effects	N/A	Minor effects	N/A	Minor effects

* None identified within the project area

The cumulative effect of past, present, the proposed action, and future actions are anticipated to have minor effects on resources.

5.0 SUMMARY OF MITIGATION

List of all environmental commitments and mitigation measures included in the proposed action.

1. Clearing and grubbing is not recommended within the migratory bird window of May 5 to July 25, except as permitted by federal, state, and local laws.
2. Contractor to make every effort to use local labor during construction.
3. Re-vegetation of disturbed areas as soon as practicable with local and native species.
4. Should archeological resources be discovered during the course of the project, work would be interrupted in the area of the discovery until the resources have been evaluated in terms of the NRHP, in consultation with AKSHPO.
5. During construction, if contaminated soil, groundwater, or free phase petroleum product is encountered and determined to be associated with a known contaminated site, the construction contractor or other project representative shall contact the appropriate DEC staff to ensure that contamination in the corridor is managed and documented as deemed necessary.
6. Obtain a floodplain development permit and Section 404 permit from the City.

6.0 COORDINATION, CONSULTATION, AND CORRESPONDENCE

6.1 Agency Scoping

Agency solicitation for comments and information request letters were mailed and e-mailed on May 15, 2018 to the following organizations:

- Bethel Native Corporation
- Calista Corporation
- City, Planning Department
- FEMA
- EPA
- Orutsararmuit Native Council
- DEC - Contaminated Sites
- DEC - Water
- DEC - Village Safe Water
- State of Alaska Department of Transportation and Public Facilities (DOT&PF)
- DEC - Facility Programs
- USFWS, Threatened & Endangered Species
- USACE, Anchorage District Office
- USDA-RD

No substantial questions or concerns were raised during scoping. Agency responses are summarized below.

DOT&PF: The two consecutive crossings on Ridgecrest just south of Osage Street do not meet DOT&PF accommodation policy.

Response: City is working with DOT&PF on the placement of three culverts across Ridgecrest Drive. The final locations and specifications will be agreed upon by both parties.

USFWS: Use the project planning website (IPaC).

Response: The IPaC planning website was consulted.

City of Bethel: Is there an estimated start time and quit time? Will there be public notices?

Response: The estimated start time for design of this project is Summer 2019 with design completion estimated by Summer 2020. Construction is projected to begin after design and take approximately one year. The contractor will provide public notices/information to the public prior to and during construction. Advanced public notice of construction activities will be published to reduce impacts on local businesses and residents.

All records of agency outreach and correspondence may be found in Appendix F.

7.0 REFERENCES

- ADCCED. 2018. Community Database. Website accessed May 9, 2018:
<https://www.commerce.alaska.gov/dcra/DCRAExternal/community>
- City. 2011. Bethel Comprehensive Plan 2035. Prepared by AGNEW::BECK Consulting for the City of Bethel, Alaska. September 2011.
- Gallant, A.L., E.F. Binnian, J.M. Omernik, and M.B. Shasby. 1995. Ecoregions of Alaska. US Government Printing Office. <https://pubs.usgs.gov/pp/1567/report.pdf>.

8.0 LIST OF PREPARERS

Name	Affiliation/Expertise Applied to Document	Profession
Federal Agency Reviewers		
Robert Chambers	USDA-RD	WEP Specialist
Project Development and Supervision		
Chase Nelson	Project Manager	Engineer
Text and Organization of EA		
Lucy Flynn O'Quinn	Author	Cultural Resources
Emily Creely	Author	Environmental Specialist -NEPA
Adam Morrill	Quality Assurance/Quality Control	Environmental Specialist-NEPA
Pat Whitesell	Quality Assurance/Quality Control	Environmental Specialist-NEPA

APPENDIX A
Floodplain and Wetland Impact Documentation and
Coordination

PUBLIC NOTICE

City of Bethel: Preliminary Public Notice for Potential Impacts to Floodplains and Wetlands

The City of Bethel intends to seek financial assistance from USDA, Rural Development (RD), Rural Utility Service (RUS) for construction and infrastructure improvements. The proposed project proposes to replace individual water and sewer flush and haul tanks by constructing an above ground piped water and sewer system tying into existing water and sewer mains. The system would be constructed in existing and proposed easements between property parcels or along roadsides. The proposed system would be constructed on pipe supports fastened to the ground with driven pile foundations or on wood sleepers fastened to the ground surface.

The proposed project is located in 'the Avenues' neighborhood, generally located between 3rd Avenue and 7th Avenue between Ridgecrest Drive and Main Street.

If implemented, the proposed project will:

- Convert approximately 480 square feet of floodplain identified by FEMA Map Panel 0201040042C (revised 8/25/2009) through placement of support piles and temporarily disturb approximately 800 square feet of floodplain through excavation activities. These floodplain impacts will occur between 7th and 6th Avenue, near Main Street, along Main Street from 7th Avenue to 3rd Avenue, and along 5th Avenue
- Convert approximately 300 square feet of wetlands through placement of support piles in several small areas of un-classified wetlands throughout the project area.

In accordance with Executive Order 11988, Floodplain Management and USDA Departmental Regulation 9500-3, Land Use Policy; and, Executive Order 11990, Protection of Wetlands, and USDA Departmental Regulation 9500-3, Land Use Policy, the purpose of this notice is to inform the public of this proposed conversion or effect and request comments concerning the proposal, alternative sites or actions that would avoid these impacts, and methods that could be used to minimize these impacts.

The draft environmental documentation regarding this proposal is available for review at 510 L Street, Suite 410, Anchorage, AK 99501 or the City of Bethel, City Hall, 300 State Highway, Bethel, AK 99559. For question regarding this proposal, contact Robert Chambers, WEP Specialist, Rural Development, at or (907) 271-2424 extension 101.

Any person interested in commenting on this proposal should submit comments to the address above by **July 11, 2018**

Archived: Thursday, June 21, 2018 10:26:55 AM

From: [Emily Creely](#)

Sent: Wednesday, June 20, 2018 1:08:00 PM

To: 'roxanne.pilkerton@fema.dhs.gov'; 'jimmy.smith@alaska.gov'

Cc: 'Betsy Jumper'; 'Chambers, Robert - RD, Anchorage, AK'

Subject: City of Bethel

Sensitivity: Normal

Attachments:

[Floodplains_bethel.jpg](#) 

Good afternoon,

The City of Bethel intends to seek financial assistance from USDA, Rural Development (RD), Rural Utility Service (RUS) for construction and infrastructure improvements. The proposed project proposes to replace individual water and sewer flush and haul tanks by constructing an above ground piped water and sewer system tying into existing water and sewer mains.

The system would be constructed in existing and proposed easements between property parcels or along roadsides. The proposed system would be constructed on pipe supports fastened to the ground with driven pile foundations or on wood sleepers fastened to the ground surface. The proposed project is located in 'the Avenues' neighborhood, generally located between 3rd Avenue and 7th Avenue between Ridgecrest Drive and Main Street (see attached Figure)

If implemented, the proposed project will:

Convert approximately 480 square feet of floodplain identified by FEMA Map Panel 0201040042C (revised 8/25/2009) through placement of support piles and temporarily disturb approximately 800 square feet of floodplain through excavation activities. These floodplain impacts will occur between 7th and 6th Avenue, near Main Street, along Main Street from 7th Avenue to 3rd Avenue, and along 5th Avenue

A Preliminary Public Notice for Potential Impacts to Floodplains (attached herein) was posted in the Bethel Post Office on June 18, 2018 and will be published in the Delta Discovery on June 27, 2018. The deadline for comments is July 11, 2018.

Per Bethel Municipal Code (Title 15.08.090 Water and Sewer Systems),

- A floodplain permit will be obtained from the City
- The piped water and sewer improvements will be designed and constructed in a manner to protect against floodwaters. The pipes will be fastened to the ground with supports or anchors, and will be kept as close to the ground as possible to allow debris to float over in a flood event.
- In areas where the water and sewer pipes follow a roadway embankment- stretches of the pipes may be buried to minimize the damming/obstructing effect.
- The residential and commercial sewage lift stations will be constructed in a waterproof manner- restricting sewage from spilling out, or flood waters from pouring in. The lift stations will also be fastened to the ground with anchors to minimize the potential for them moving in flood events.
- During design of these improvements the project area will be surveyed and actual elevations will be established in relation to the 100 and 500 year flood elevations. Specific improvements will be solidified during the design process.

Please let me know if you have any comments, questions or concerns regarding this project.

Sincerely,

[Emily Creely](#)

Emily Creely, PWS

Environmental Specialist

DOWL

907.562.2000 | office

907.865.1216 | direct

4041 B Street

Anchorage, Alaska 99503

who we are | what we do

www.dowl.com

Archived: Wednesday, June 20, 2018 2:45:25 PM

From: [Emily Creely](#)

Sent: Wednesday, June 20, 2018 1:45:00 PM

To: 'bjumper@cityofbethel.net'; 'regpagemaster@usace.army.mil'

Cc: 'Chambers, Robert - RD, Anchorage, AK'

Subject: City of Bethel Water and Sewer Improvements

Sensitivity: Normal

Attachments:

[Public Notice Wetlands Floodplains.pdf](#) [Proposed Project and Wetlands.jpg](#) [Proposed Action.jpg](#)

Good afternoon,

The City of Bethel intends to seek financial assistance from USDA, Rural Development (RD), Rural Utility Service (RUS) for construction and infrastructure improvements. The proposed project proposes to replace individual water and sewer flush and haul tanks by constructing an above ground piped water and sewer system tying into existing water and sewer mains.

The system would be constructed in existing and proposed easements between property parcels or along roadsides. The proposed system would be constructed on pipe supports fastened to the ground with driven pile foundations or on wood sleepers fastened to the ground surface. The proposed project is located in 'the Avenues' neighborhood, generally located between 3rd Avenue and 7th Avenue between Ridgecrest Drive and Main Street(attached).

A review of the United States Fish & Wildlife Service National Wetlands Inventory showed no wetland information for the region. However, the project area is within the Subarctic Coastal Plain ecoregion, which is characterized by low relief, the predominance of wetlands, and braided or meandering streams and rivers. Permafrost is widespread and vegetative cover generally consists of wet graminoid herbaceous communities. Therefore, wetlands are likely present in undeveloped areas.

If implemented, the proposed project will:

- Convert approximately 300 square feet of wetlands through placement of support piles in several small areas of un-classified wetlands throughout the project area (attached).

A Preliminary Public Notice for Potential Impacts to Floodplains (attached herein) was posted in the Bethel Post Office on June 18, 2018 and published in the Delta Discovery on June 27, 2018.

Prior to project construction or ground-disturbing activities within naturally vegetated areas, authorization for fill in wetlands would be obtained. The City currently administers a General Permit (POA-2016-476), issued by the United States Army Corps of Engineers per Section 404 of the Clean Water Act, that authorizes work in wetlands. This project is anticipated to qualify for this general permit, but also qualifies for a nationwide permit for utility lines (12) and would not require a Pre-Construction Notification or mitigation.

Please let me know if you have any comments, questions or concerns regarding this project.

Sincerely,

Emily

Emily Creely, PWS
Environmental Specialist

DOWL
907.562.2000 | office
907.865.1216 | direct
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Anchorage, Alaska 99503

who we are | what we do
www.dowl.com

Floodplains

In accordance with guidelines prepared by the U.S. Water Resource Council to implement E.O. 11988 and E.O. 13690 and Agency objectives as per USDA DR 9500-3, proposals that propose to locate facilities or structures in the floodplain must evaluate whether there are practicable alternatives to locating the proposal in a floodplain using an eight-step decision making process (Part 1970, Subpart F).

Step 1 - Determine whether: 1) the proposal is located in 100-year floodplain or 500-year floodplain for critical facilities, and 2) the proposal has the potential to affect or be affected by a floodplain.

Per FEMA Map Panel 0201040042C (revised 8/25/2009), the proposed action is within the 100-year floodplain.

Step 2 - Notify the public at earliest possible time of the intent to carry out an action in a floodplain, and involve the affected and interested public in the decision-making process (the public notification process will occur when the EA is published for public comment and review after the Agency accepts the EA as a Federal document).

A Preliminary Public Notice for Potential Impacts to Floodplains (attached herein) was posted in the Bethel Post Office from June 18, 2018 to July 2, 2018 and published in the {Name of Paper} on June 27, 2018. The deadline for comments was July 11, 2018.

Step 3 - Identify and evaluate the practicable alternatives to locating the proposal in a floodplain.

The project location is restricted by the establishment of homes within the floodplain, therefore there is no practicable alternative to locating the project outside of the floodplain. Floodproofing measures to protect the above ground water and sewer pipes will be made. Because of extensive ground movement in Bethel, burying the water and sewer pipes is not a solution that can be considered for the whole project area.

Step 4 - Identify the full range of potential direct or indirect impacts associated with the proposal's occupancy or modification of floodplains, and the potential for direct and indirect support of additional floodplain development that could result from implementing the proposal.

The structures within the floodplain include small piles installed every 10 feet to secure the pipes. The project also includes improvements to one City owned lift station, Kilbuck lift station, and construction of several small residential lift stations. During floods, debris could get caught on the piles and pipes, and cause floodwaters to backup. In areas of concern the water and sewer pipes will be kept as close to the ground as possible to allow flood waters to go over the pipes, and measures will be taken to fasten the pipes to the ground. The modification of the floodplain is small (approximately 480 square feet of piles) and given the placement of the project in a well-developed area with multiple buildings, out-buildings, roads and other development is not likely to create a significant impact to the ability of floodwaters to move freely. No additional floodplain development is anticipated as a direct or indirect result of the project as the project is serving existing structures.

Step 5 – If there are no practicable alternatives for the proposal to occupy or modify the floodplain, the evaluation must identify measures that will minimize the potential adverse impacts to the floodplain and, where possible, propose actions that will restore natural and beneficial floodplain values.

Per Bethel Municipal Code (Title 15.08.090 Water and Sewer Systems),

- A floodplain permit will be obtained from the City
- The piped water and sewer improvements will be designed and constructed in a manner to protect against floodwaters. The pipes will be fastened to the ground with supports or anchors, and will be kept as close to the ground as possible to allow debris to float over in a flood event.
- In areas where the water and sewer pipes follow a roadway embankment- stretches of the pipes may be buried to minimize the damming/obstructing effect.
- The residential and commercial sewage lift stations will be constructed in a waterproof manner- restricting sewage from spilling out, or flood waters from pouring in. The lift stations will also be fastened to the ground with anchors to minimize the potential for them moving in flood events.
- During design of these improvements the project area will be surveyed and actual elevations will be established in relation to the 100 and 500-year flood elevations. Specific improvements will be solidified during the design process.

Step 6 - Re-evaluate the proposal to determine: 1) if it is still practicable in light of its exposure to flood hazards; 2) the steps necessary to minimize these impacts; and 3) its potential to take actions that could restore and preserve floodplain values.

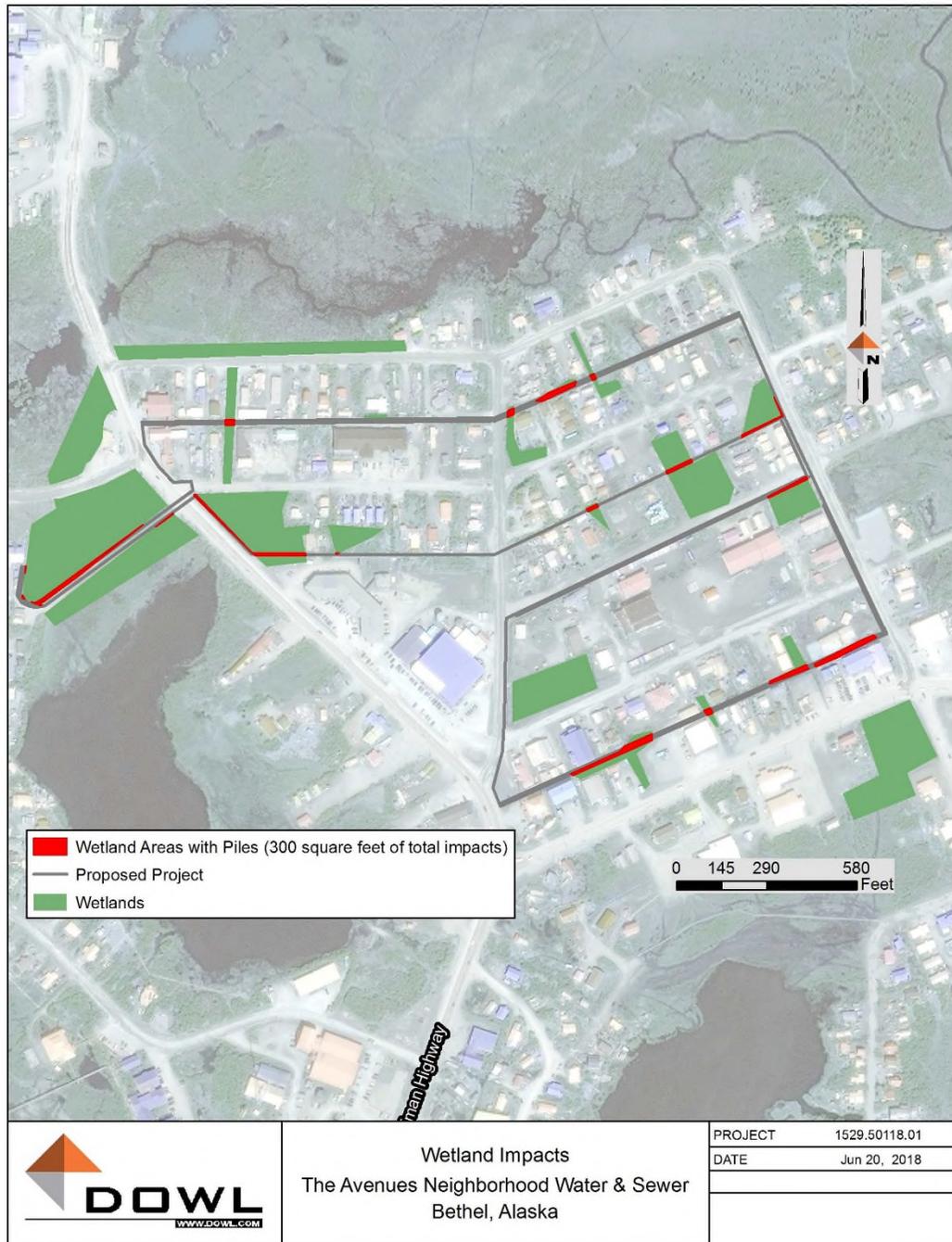
Step 7 – If after evaluating the applicant’s analysis, the Agency agrees with the applicant on its analysis that no practicable alternative exists for the proposal to occupy or modify a floodplain, the applicant will document the analysis and findings in the EA. The Agency and applicant will document the finding and provide an explanation of the relevant factors considered in the decision in the public notice announcing the availability of the EA.

Step 8 – After the required public comment period on the EA has expired and after the Agency has considered any public comment(s) on the applicant’s proposal to take action to occupy or modify a floodplain, the Agency will document its final decision in the Finding of No Significant Impact (FONSI). The public notice announcing the availability of the FONSI will highlight the decision. The Agency and applicant will ensure that any minimization plans are implemented and that, if appropriate, flood insurance requirements are met.

§ 1970.406 Eight Step Decision-Making Process for Alternatives Consideration.

(a) Step 1. DETERMINE IF THE PROPOSED ACTION IS IN A WETLAND. Determine whether the applicant's proposed action is located in a wetland and whether it has the potential to affect or be affected by a wetland. Refer to this Subpart at 1970.407 (Wetland Determination) for wetland determination guidance and at 1970.408 (Alternatives Analyses and Mitigation Measures) for wetland alternatives analysis guidance. The applicant is responsible for providing this information to the Agency. The applicant is responsible for describing the proposed action, the affected wetland(s), and including or referencing maps showing the action's location with respect to the wetland. If the federal action will have no impact to a wetland, no further action is necessary. If the federal action will impact a wetland, continue to step 2.

A review of the United States Fish & Wildlife Service (USFWS) National Wetlands Inventory showed no wetland information for the region. However, the project area is within the Subarctic Coastal Plain ecoregion (Gallant, et al 1995), which is characterized by low relief, the predominance of wetlands, and braided or meandering streams and rivers. Permafrost is widespread and vegetative cover generally consists of wet graminoid herbaceous communities. Therefore, wetlands are likely present in undeveloped areas where vegetation has not been significantly disturbed. These areas were mapped and are shown below:



(b) Step 2. PRELIMINARY PUBLIC NOTICE. Notify the public at the earliest possible time of the Agency's intent to carry out an action in a wetland, and involve the affected and interested public in the decision-making process. The preliminary public notice requirements for particular actions are outlined in 1970.409 and Exhibit B.

The Preliminary Public Notice for Potential Impacts to Floodplains and Wetlands was posted in the Bethel Post Office from June 18, 2018 to July 2, 2018 and published in the Delta Discovery on June 27, 2018. It is included in Appendix A.

(c) Step 3. SEARCH FOR PRACTICABLE ALTERNATIVES. Identify and evaluate practicable alternatives to locating the proposed action in a wetland including off-site and on-site alternatives, alternative configurations, other avoidance actions and the “no action” alternative, as appropriate. All proposals with impact to wetlands should document the “no action” alternative. If a practicable alternative exists outside the wetland, the Agency must consider that alternative.

The project location is restricted by the establishment of homes, therefore there is no practicable alternative completely avoiding wetlands. Floodproofing measures to protect the above ground water and sewer pipes will be made.

(d) Step 4. IDENTIFY ADVERSE IMPACTS AND BENEFICIAL VALUES/FUNCTIONS. Identify the potential direct, indirect, and cumulative wetland impacts that could result from the proposed action and alternatives. Identify primary and secondary functions and values of the wetland such as water quality improvement, water filtration, floodwater storage, fish and wildlife habitat, aesthetics, and biological productivity. Then analyze the impacts to the following factors: 1) Natural environment (topography, water sources, habitat areas, etc.), 2) Social concerns (aesthetics, historic and cultural values, land use patterns, etc.) 3) Economic and engineering aspects (costs of construction, transportation, access, ingress, egress, etc.), and 4) Legal considerations (permits, leases, deed restrictions, setbacks, etc.)

Prior to project construction or ground-disturbing activities within naturally vegetated areas, authorization for fill in wetlands would be obtained. The City currently administers a General Permit, issued by the United States Army Corps of Engineers per Section 404 of the Clean Water Act, that authorizes work in wetlands. This project is anticipated to qualify for this general permit, but also qualifies for a nationwide permit for utility lines (#12). Due to the extremely small impacts, a Pre-Construction Notification would not be required, nor would any mitigation.

(e) Step 5. MITIGATE ADVERSE IMPACTS. Mitigation can take the form of avoidance, minimization of wetland impacts, or compensation for impacts including all efforts to minimize the adverse impacts to wetlands identified under Step 4. Avoidance can often be accomplished by reviewing alternative layouts, designs, and configurations. It also employs on-site evaluation of those factors evaluated in Step 4, including the presence of other natural or cultural resources, economic constraints, engineering constraints, transportation constraints, traffic constraints, site access, site buffer setbacks, etc. Agency environmental staff or the applicant should ensure documentation in the environmental file of any efforts to avoid, minimize, and mitigate adverse impacts to the wetland including restoration, preservation or enhancement of the natural and beneficial values served by the wetlands to be impacted. Additional avoidance, minimization, and mitigation measures are listed in 1970.408.

Due to the extremely small impacts, mitigation under Nationwide Permit #12 would not be required.

(f) Step 6. RE-EVALUATE ALTERNATIVES. Re-evaluate the proposed action to determine its potential to disrupt wetland values. Alternatives preliminarily rejected at Step 3 should also be re-evaluated as to whether they are practicable in light of the information gained in Steps 4 and 5. The Agency may deny financial assistance for a project that impacts a wetland if the Agency determines there are practicable alternatives which would accomplish the proposed action's purpose and need without wetland impact, regardless of whether or not a CWA Section 404 permit is issued. This is because Exec. Order 11990 applies additional requirements for the search for practicable alternatives to federal agencies, and also because of the CONACT S. 363 provisions.

(g) Step 7. FINAL PUBLIC NOTICE. Prepare and provide the public with a finding and explanation of the Agency's final decision that the wetland impact is the least damaging practicable alternative and that there is a significant need for the proposed action.

(h) Step 8. IMPLEMENT PROPOSED ACTION WITH APPROPRIATE MITIGATION.

After the Agency has finalized the environmental review regarding wetlands and if a Finding of No Significant Impact (FONSI)/Record of Decision (ROD) is prepared, the proposed action may be implemented. When wetland (or other important resource) impacts would occur from an Agency action, but permits/authorizations are not yet issued, the Agency can complete an Environmental Assessment (EA) and publish a FONSI/ROD evaluating the proposed impacts with an indication within the EA, the FONSI/ROD, and the Letter of Conditions/Conditional Commitment, that permit(s) and authorization(s) are pending and that any associated mitigation will be a requirement in the Letter of Conditions. However, the EA, FONSI/ROD, and Letter of Conditions/Conditional Commitment shall indicate that no construction shall commence until after the permit(s) is/are issued. The EA/EIS, FONSI/ROD, and Letter of Conditions/Conditional Commitment should also state that the applicant is required to send a revised project description to the Agency for evaluation should the impacts associated with the proposal vary significantly from those evaluated in the EA/EIS, and the Agency will need to supplement the EA/EIS.

APPENDIX B
Groundwater
Aquifers

Details Basemap

Share Print Measure Bookmarks Find address or place

About Content Legend

Legend

DEC-Public Water System Sources

Active Public Water System Source Locations Layer

- Community Water System (C)
- Non-Transient Non-Community Water System (NTNC)
- Non-Community Water System (NC)

DEC- Identified Drinking Water Protection Areas (DEH)

Zone A (GW-Several Months Time of Travel or SW 1000 ft buffer)

Zone B (GW-2 Yr Time of Travel or SW-1 mile buffer)

Zone C Surface Water (Watershed Boundary)

Zone E Ground Water Surface Water Influence (1000 ft buffer)

Zone F Ground Water Surface Water Influence (1 mile buffer)

Zone G Ground Water Surface Water Influence (Watershed Boundary)

Provisional Protection Areas

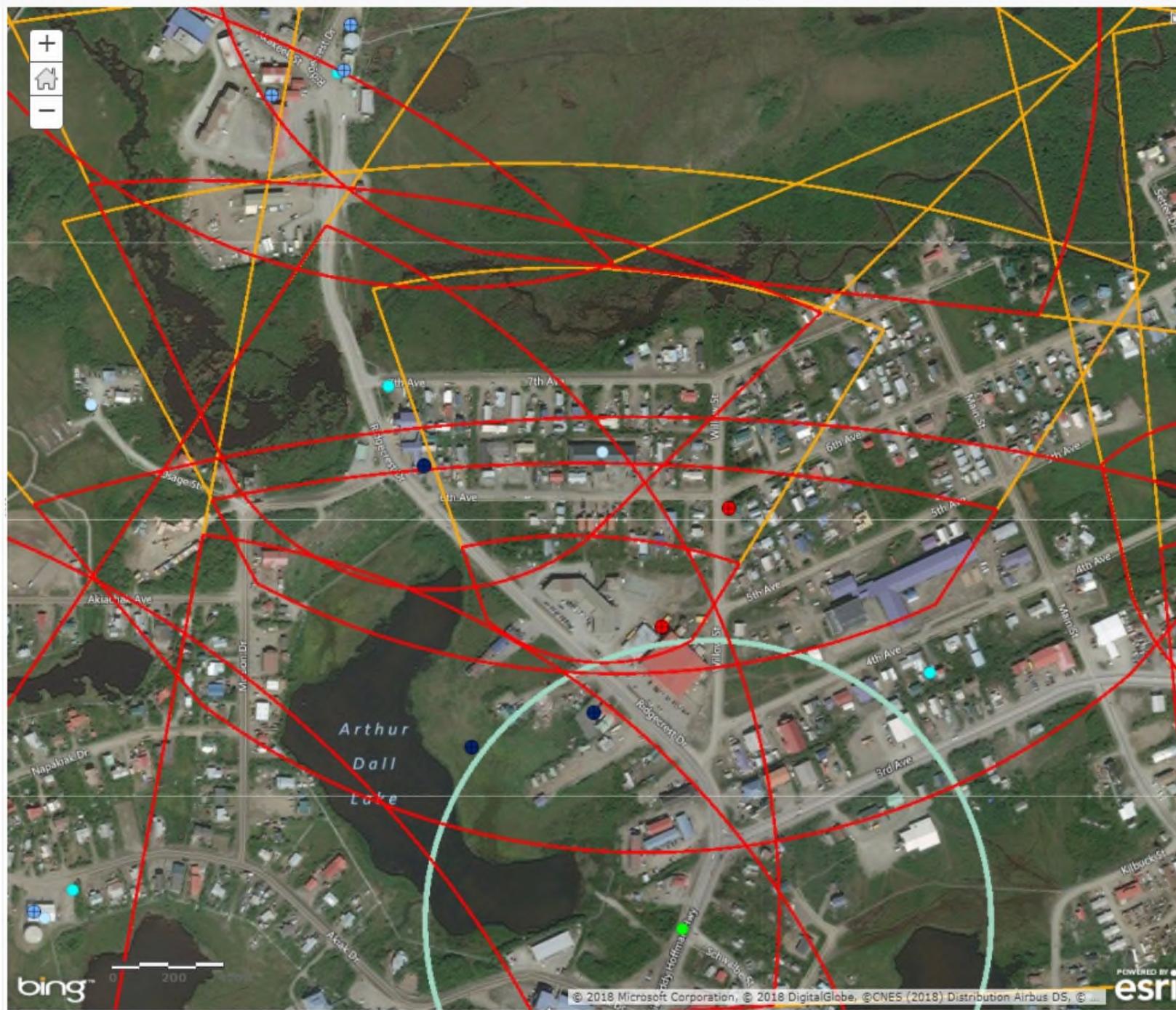
DNR-Well Log Tracking System

MLWWELTS.MV_WELTS

GPS

Property Parcel

PLSS Centroid



APPENDIX C
USFWS Information for Planning and Conservation
Database

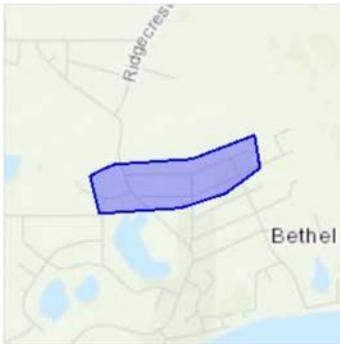
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Bethel County, Alaska



Local office

Anchorage Fish And Wildlife Field Office

☎ (907) 271-2888

📠 (907) 271-2786

4700 Blm Road
Anchorage, AK 99507

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service.

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.

THERE ARE NO ENDANGERED SPECIES EXPECTED TO OCCUR AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see maps of where birders and the general public have sighted birds in and around your project area, visit E-bird tools such as the [E-bird data mapping tool](#) (search for the name of a bird on your list to see specific locations where that bird has been reported to occur within your project area over a certain timeframe) and the [E-bird Explore Data Tool](#) (perform a query to see a list of all birds sighted in your county or region and within a certain timeframe). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 15
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Feb 1 to Sep 30
Bar-tailed Godwit <i>Limosa lapponica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Aug 15
Black Turnstone <i>Arenaria melanocephala</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Jul 31
Bristle-thighed Curlew <i>Numenius tahitiensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3913	Breeds May 15 to Aug 15
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Hudsonian Godwit <i>Limosa haemastica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Jul 31
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds May 1 to Aug 15
Pacific Golden-plover <i>Pluvialis fulva</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 20 to Aug 15
Red-throated Loon <i>Gavia stellata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Sep 30
Semipalmated Sandpiper <i>Calidris pusilla</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 10 to Aug 20
Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds Jun 1 to Aug 10
Whimbrel <i>Numenius phaeopus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9483	Breeds May 10 to Aug 20

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in your project's counties during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (🟡)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the counties of your project area. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

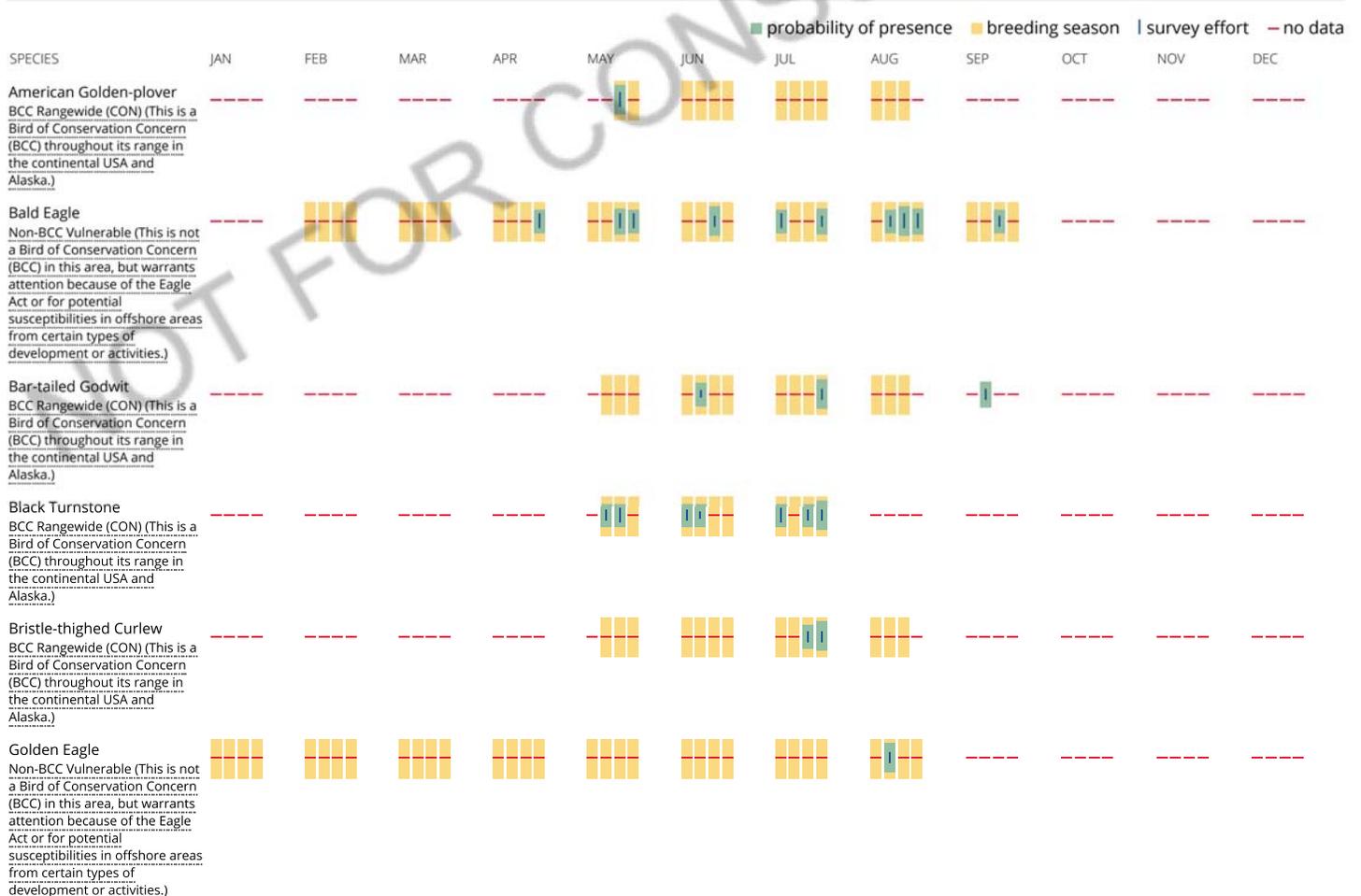
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (---)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the counties which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [E-bird Explore Data Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird entry on your migratory bird species list indicates a breeding season, it is probable that the bird breeds in your project's counties at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the BGEPA should such impacts occur.

Facilities

Wildlife refuges and fish hatcheries

REFUGE AND FISH HATCHERY INFORMATION IS NOT AVAILABLE AT THIS TIME

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

APPENDIX D
AKSHPO
Correspondence



May 15, 2018

Ms. Judith Bittner
State Historic Preservation Officer
550 West 7th Avenue, Suite 1310
Anchorage, Alaska 99501-3357

Subject: Initiation of Section 106 Review Process - The Avenues Piped Water and Sewer System, Bethel, Alaska Project

Dear Ms. Bittner:

The City of Bethel (COB) is in the process of performing an environmental review pursuant to the National Environmental Policy Act (NEPA) for the United States Department of Agriculture (USDA), Rural Development in order that it may assess the environmental impacts of a piped water and sewer system in Bethel, Alaska. NEPA and Section 106 of the National Historic Preservation Act (NHPA) require federal agencies to take into account the effects of their undertakings on historic properties. DOWL is assisting the COB with Section 106 of the NHPA, and has been authorized by USDA to initiate the consultation process (see attached authorization).

You have been identified as a consulting party under 36 CFR Part 800, Section 800.2(c). Therefore, we provide you with the attached information regarding our proposed project and respectfully request your comments with regard to the potential for the project to impact historic properties. Specifically, we would appreciate any comments you may have on the following issues:

- The proposed project;
- The described area of potential effects (APE);
- The potential effects of the undertaking on any historic property we have thus far identified;
- Information on other historic properties which might be present and could be effected by the proposed project, including properties which has religious or cultural significance to one or more Indian Tribes;
- Any additional parties we should consider consulting; and
- Any other comments or information related to historic preservation which you believe is relevant to the Section 106 review.

Please be as specific as you can with any comments or information.

Project Description:

Bethel is located on the shores of the Kuskokwim River at approximately 60.79° North and 161.75° West; with the proposed project limited to Sections 8 and 9 of Township 8 North, Range 71 West, and Sections 12 and 13 Township 8 North, Range 72 West, Seward Meridian (USGS Quadrangle Bethel D-8). The City of Bethel is located approximately 400 air miles west of Anchorage (Figure 1).

The purpose of the proposed project is to improve and protect human and environmental health and reduce homeowner and COB costs by providing residences in the “Avenues” neighborhood with an improved water and sewer system (Figure 2). The COB currently delivers potable water and collects sewage from these approximately 130 residences in Bethel. The City uses twenty-year old haul trucks for delivery and collection, many of which are maintenance intensive and need immediate replacement. Delivering potable water and collecting sewage is more expensive for the homeowner and less efficient for the COB to maintain and operate than piped water and sewer. The purpose of this project is to transition this neighborhood from individual residential and commercial flush and haul tanks to a piped network.

The project proposes to replace individual residential and commercial water and sewer tanks by constructing an above ground piped water system and tying in to existing water and sewer mains. The system would be constructed in existing and proposed easements between property parcels or along roadsides. The new system would be constructed on pipe supports fastened to the ground with driven pile foundations or on wood sleepers fastened to the ground surface.

Area of Potential Effect:

The project is in the planning and design phase. The exact locations and extent of ground disturbance, and staging and material sites, have not been fully identified. Figure 2 depicts the anticipated area of potential effect (APE) based upon the current review area. The APE encompasses a direct impact study area where ground disturbing activities may occur and an additional 500-foot buffer for indirect impacts. The APE measures 146 acres.

Identification Efforts:

A search of the Alaska Heritage Resource Survey (AHRIS) was conducted in February 2018 to identify previously recorded sites. 12 resources were located within 1 mile of the APE. The majority of the resources have been determined not eligible or have no determination of eligibility for the NRHP. One site—BTH-00013—is located within the APE and is listed on the National Register of Historic Places. BTH-00013, also known as First Mission House, was built in 1885 on the bank of the Kuskokwim River. Designed and built by the Moravian Church, it was the first permanent missionary building and is the oldest historic building in Bethel. The building has been moved on three occasions and was fully restored at its current location at 291 3rd Avenue in 1985.

We are requesting your assistance in identifying other historic properties that may be listed or eligible for listing on the NRHP that may be affected by the project or any recommendations you may have to mitigate or avoid impacts to properties that may be affected. Rural Development, as the lead Federal Agency, is responsible for compliance with Section 106 of the NHPA, and will provide findings of eligibility and effect as appropriate during the consultation process.

We would appreciate a response within 30 days. If you need any further information or wish to discuss our project, please contact me at loquinn@dowl.com.

Ms. Judith Bittner
State Historic Preservation Officer
May 15, 2018
Page 3

Sincerely,

A handwritten signature in blue ink, reading "Lucy Flynn O'Quinn". The signature is written in a cursive style with a large, decorative initial "L".

Lucy Flynn O'Quinn
Cultural Resources Specialist

Attachments:

Section 106 Consultation Authorization
Figure 1 – Location Vicinity Map/Quad
Figure 2 – Area of Potential Effect

Electronic cc w/enclosures:

Robert Chambers, USDA Rural Development
Rob Hoffman, Orusaramuit Native Council



United States Department of Agriculture
Rural Development
Alaska USDA Service Center

Section 106 Consultation Authorization and Instructions to Applicant

DATE: March 13, 2018

TO: City of Bethel
PO Box 1388
Bethel, AK 99559

DOWL
Anchorage, AK

FROM: USDA Rural Development
510 L Street, Suite 410
Anchorage, AK 99501

SUBJECT: Initiating Consultations under the Section 106 Process

In order for Rural Development to make a decision on your application, an environmental review must first be completed. Among other items, this environmental review includes an analysis of the potential for your proposed project to impact sites that are listed or eligible for listing on the National Register of Historic Places. This analysis is required by Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations located at 36 CFR Part 800. NHPA requires Rural Development to work closely with the State Historic Preservation Office (SHPO), Tribes, and other consulting parties to take into account the effects of your project on historic properties and to attempt to find ways to avoid, minimize, or mitigate adverse effects, to the extent practicable.

Receipt of this letter from Rural Development authorizes you to initiate consultation under the Section 106 process. Please proceed as follows:

1. Review the attached letter (Attachment 1) and the required supporting documentation (Attachment 2).
2. Your Rural Development representative will:
 - Answer any questions you have about completing the letter and the supporting documentation;
 - Assist you in a preliminary description of the area of potential effects* (APE);
 - Assist you in developing a preliminary list of the consulting parties.

800 West Evergreen • Suite 201 • Palmer, AK 99645
Phone: (907) 761-7705 • Fax: (907) 761-7783 • TDD: (907) 761-7786

Committed to the future of rural communities.

"USDA is an equal opportunity provider, employer and lender."
To file a complaint of discrimination write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W.,
Washington, DC 20250-9410 or call (800)795-3272 (voice) or (202) 720-6382 (TDD).

3. Send the completed letter (Attachment 1) and the supporting documentation (contained in Attachment 2) to each of the consulting parties on the list (retain a dated copy of each letter for your records).
4. Include a copy of this Authorization/Instructions document with your letter to the SHPO and/or THPO.
5. Allow 30 days for receipt of comments. Incorporate any comments received into the environmental information/report (depending on Rural Development program) being prepared as part of your application to Rural Development, and attach copies of each letter you sent out and comments received to the environmental information/report.

The initiation of consultation is the first step in the Section 106 process. This authorization permits you, as an applicant (or, by proxy, the applicant's consultant), to initiate this consultation process and to assist Rural Development in collecting and evaluating information to facilitate timely compliance with Section 106 requirements. Rural Development remains legally responsible for making all formal determinations and findings under the Section 106 process.

Please be aware that some proposals require the services of a professional consultant. For example, an archeological survey may be needed before the Section 106 process can be concluded. Your Rural Development representative can provide you further guidance, if there is a need for such services. As an applicant, you are still responsible for the requirements of this letter, even though you have hired a consultant to assist you.

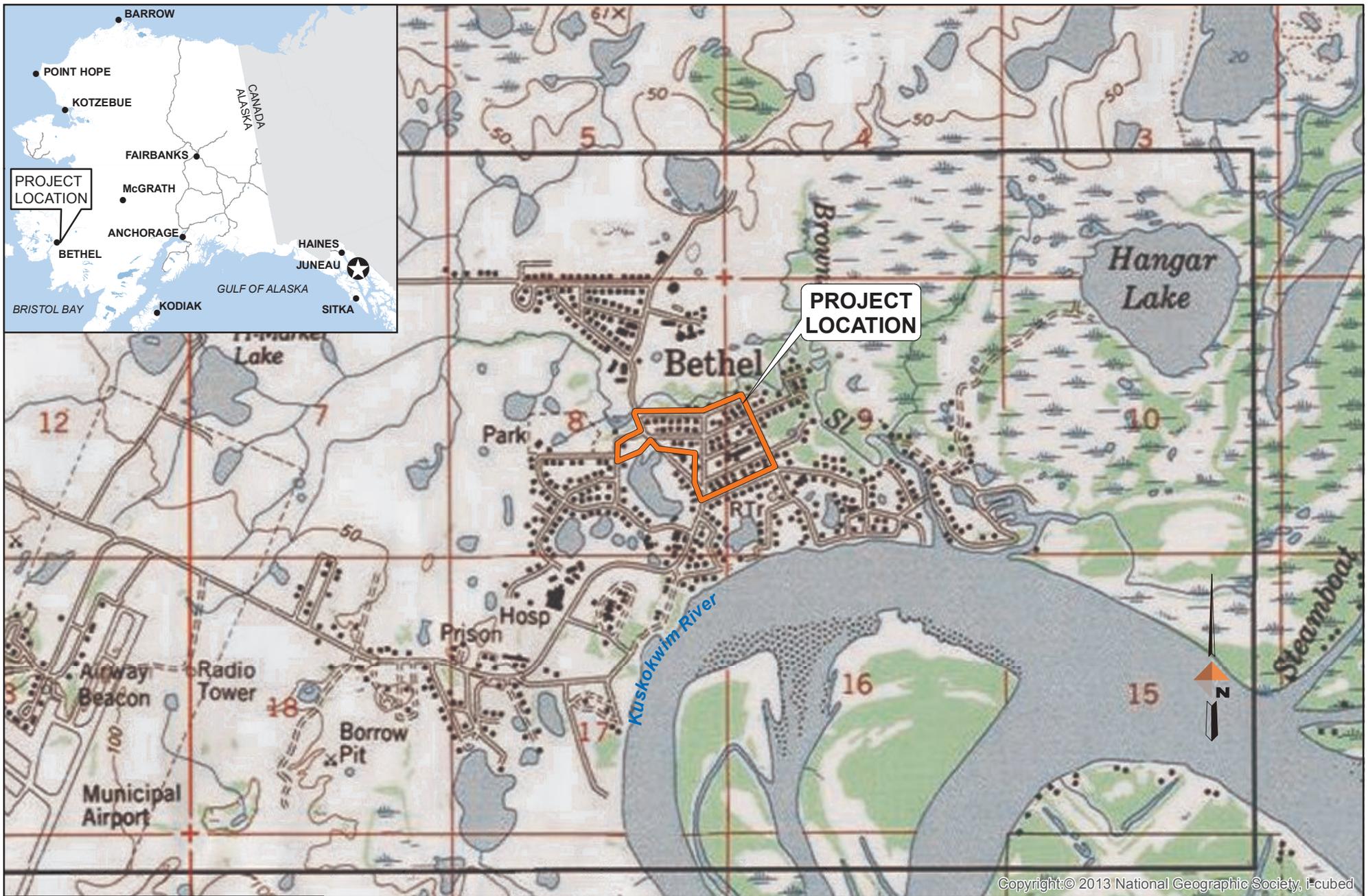
This authorization to initiate consultation under the Section 106 process does **not** constitute Rural Development approval of your request for financial assistance. All costs incurred by the applicant in compliance with the Section 106 process are incurred at the applicant's risk.

Note: Do **not** take any actions which might have an adverse effect on historic property or cultural resources until the Section 106 review process is completed. Section 110(k) of the National Historic Preservation Act **may prohibit** federal agencies from providing federal financial assistance to any applicant who "... with intent to avoid the requirements of Section 106, has intentionally significantly adversely affected a historic property..."

Please contact your Rural Development representative *Tim Krug* at 907-761-7777 or *timothy.krug@ak.usda.gov* should you have any questions.

Attachments: Attachments 1 and 2

* The area of potential effects (APE) is defined by 36 CFR Part 800, Section 800.16(d) as follows: "Area of potential effects means the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking."

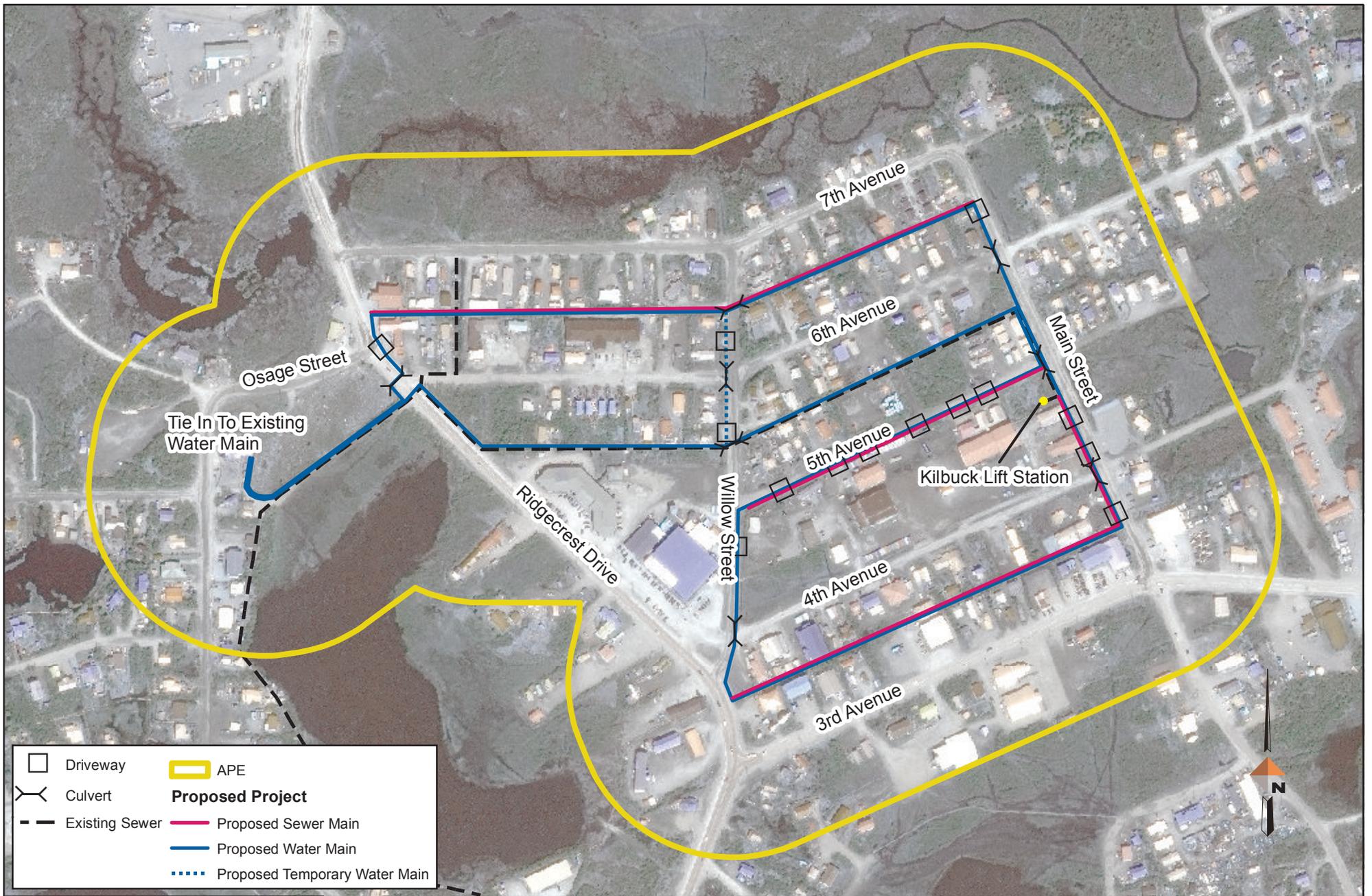


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Figure 1: Location Vicinity Map
 The Avenues Neighborhood Water & Sewer
 Bethel, Alaska

PROJECT	1529.50118.01
DATE	May 15, 2018





-  Driveway
-  Culvert
-  Existing Sewer
-  APE
- Proposed Project**
-  Proposed Sewer Main
-  Proposed Water Main
-  Proposed Temporary Water Main

Figure 2: Proposed Project APE
The Avenues Neighborhood Water & Sewer
Bethel, Alaska

PROJECT	1529.50118.01
DATE	May 15, 2018
	



Archived: Thursday, May 31, 2018 1:23:31 PM
From: Chambers, Robert - RD, Anchorage, AK
Sent: Tuesday, May 29, 2018 10:54:11 AM
To: S PO (oha.revcomp@alaska.gov)
Cc: ucy Flynn O' uinn; rhoffman@nativecouncil.org
Subject: Bethel Avenues Project-Finding of No Adverse Effect
Sensitivity: Normal
Attachments:
[S PO_Determination_ etter.pdf](#) 

Good morning,

Please see the attached findings letter from Rural Development. If you have any questions, please do not hesitate to contact me.

Thanks,

ROBERT C AMBERS
WEP Specialist Rural Development
United States Department of Agriculture
510 Street, Suite 410; Anchorage, AK 99501
Office: (907) 271-2424, Ext. 101
Fax: (855) 201-1074
www.rurdev.usda.gov/AK_ome.html Committed to the future of rural communities



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United States Department of Agriculture

6-12-18

3330-1K USDA-RD

Rural Development

May 29, 2018

Alaska field office

510 L Street
Suite 410
Anchorage, AK
99501

Ms. Judith Bittner
State Historic Preservation Officer
550 West 7th Avenue, Suite 1310
Anchorage, Alaska 99501-3357

Voice 907.271.2424
Fax 855.201.1074

Subject: Recommendation of No Adverse Effect to Historic Properties - The
Avenues Piped Water and Sewer System, Bethel, Alaska Project

Dear Ms. Bittner:

Under the United States Department of Agriculture (USDA), Rural Development is considering funding an application from the City of Bethel (COB) to construct a piped water and sewer system (Project). The Project is located at approximately 60.79° North and 161.75° West; in Sections 8 and 9 of Township 8 North, Range 71 West, and Sections 12 and 13 Township 8 North, Range 72 West, Seward Meridian (USGS Quadrangle Bethel D-8) (Figure 1). Rural Development has determined the project is an undertaking subject to review under Section 106 of the National Historic Preservation Act, 54 U.S.C. has determined that this Project is an undertaking subject to review under Section 106 of the National Historic Preservation Act, 54 U.S.C. § 300101 et seq., and its implementing regulations, 36 CFR Part 800 (Section 106 review).

In accordance with 36 CFR § 800.2(c)(4), and 7 CFR § 1970.5(b)(2) of the regulations, "Environmental Policies and Procedures" (7 CFR Part 1970) Rural Development has issued a blanket delegation for its applicants to initiate and proceed through Section 106 review. Under this delegation, RUS may conclude Section 106 review on the basis of an agreement reached between COB, Alaska State Historic Preservation Office (SHPO) and other consulting parties on the recommended finding of effect.

Based on review of the project documentation provided by COB, RD has determined that a **finding of no adverse effect** is appropriate for this undertaking. See below for details. This finding will conclude Section 106 review.

Should you have any questions, please contact Robert Chambers at Robert.chambers@ak.usda.gov or (907) 271-2424 extension 101.

Sincerely,

Robert Chambers

ROBERT CHAMBERS
WEP Program Specialist

MS

No Historic Properties Adversely Affected
Alaska State Historic Preservation Officer
Date: 7-12-18 File No.: 2018-00642
Please review 36 CFR 800.13 A.S. 41.35.070(d)

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2018-00642

Project Documentation

Project Description:

Bethel is located on the shores of the Kuskokwim River at approximately 60.79° North and 161.75° West; with the proposed project limited to Sections 8 and 9 of Township 8 North, Range 71 West, and Sections 12 and 13 Township 8 North, Range 72 West, Seward Meridian (USGS Quadrangle Bethel D-8). The City of Bethel is located approximately 400 air miles west of Anchorage (Figure 1).

The purpose of the proposed project is to improve and protect human and environmental health and reduce homeowner and COB costs by providing residences in the “Avenues” neighborhood with an improved water and sewer system (Figure 2). The COB currently delivers potable water and collects sewage from these approximately 130 residences in Bethel. The City uses twenty-year old haul trucks for delivery and collection, many of which are maintenance intensive and need immediate replacement. Delivering potable water and collecting sewage is more expensive for the homeowner and less efficient for the COB to maintain and operate than piped water and sewer. The purpose of this project is to transition this neighborhood from individual residential and commercial flush and haul tanks to a piped network.

The project proposes to replace individual residential and commercial water and sewer tanks by constructing an above ground piped water system and tying in to existing water and sewer mains. The system would be constructed in existing and proposed easements between property parcels or along roadsides. The new system would be constructed on pipe supports fastened to the ground with driven pile foundations or on wood sleepers fastened to the ground surface.

Area of Potential Effect:

The project is in the planning and design phase. The exact locations and extent of ground disturbance, and staging and material sites, have not been fully identified. Figure 2 depicts the anticipated area of potential effect (APE) based upon the current review area. The APE encompasses a direct impact study area where ground disturbing activities may occur and an additional 500-foot buffer for indirect impacts. The APE measures 146 acres.

Identification Efforts:

A search of the Alaska Heritage Resource Survey (AHRs) was conducted in February 2018 to identify previously recorded sites. 12 resources were located within 1 mile of the APE. The majority of the resources have been determined not eligible or have no determination of eligibility for the NRHP. One site—BTH-00013—is located within the APE and is listed on the National Register of Historic Places. BTH-00013, also known as First Mission House, was built in 1885 on the bank of the Kuskokwim River. Designed and built by the Moravian Church, it was the first permanent missionary building and is the oldest historic building in Bethel. The building has been moved on three occasions and was fully restored at its current location at 291 3rd Avenue in 1985.

Findings and Recommendations:

The project impacts to subsurface sediments will be limited to supports for the piping (Figure 3). This APE has been previously disturbed with alleyways and existing water and sewer tanks. Rural Development’s finding and recommendation is that there will be no effects to buried

historic properties within the APE due to minimal subsurface impacts, and the lack of previously recorded sites within the APE.

BTH-00013 is located within the APE, and the proposed project will impact the historic structure visually. However, as the schematic (Figure 3) shows, the project will not have any direct effects on the building. Construction will occur adjacent to the structure at the existing pipe with the additional of the intercept. Construction would create increased dust and noise at the site. These effects of this action would be short-term and not alter the location, setting, design, materials, workmanship, feeling, or association or otherwise create adverse effects to the historic property. No adverse effects to historic properties are anticipated from the project.

Figure 1 – Location Vicinity Map/Quad

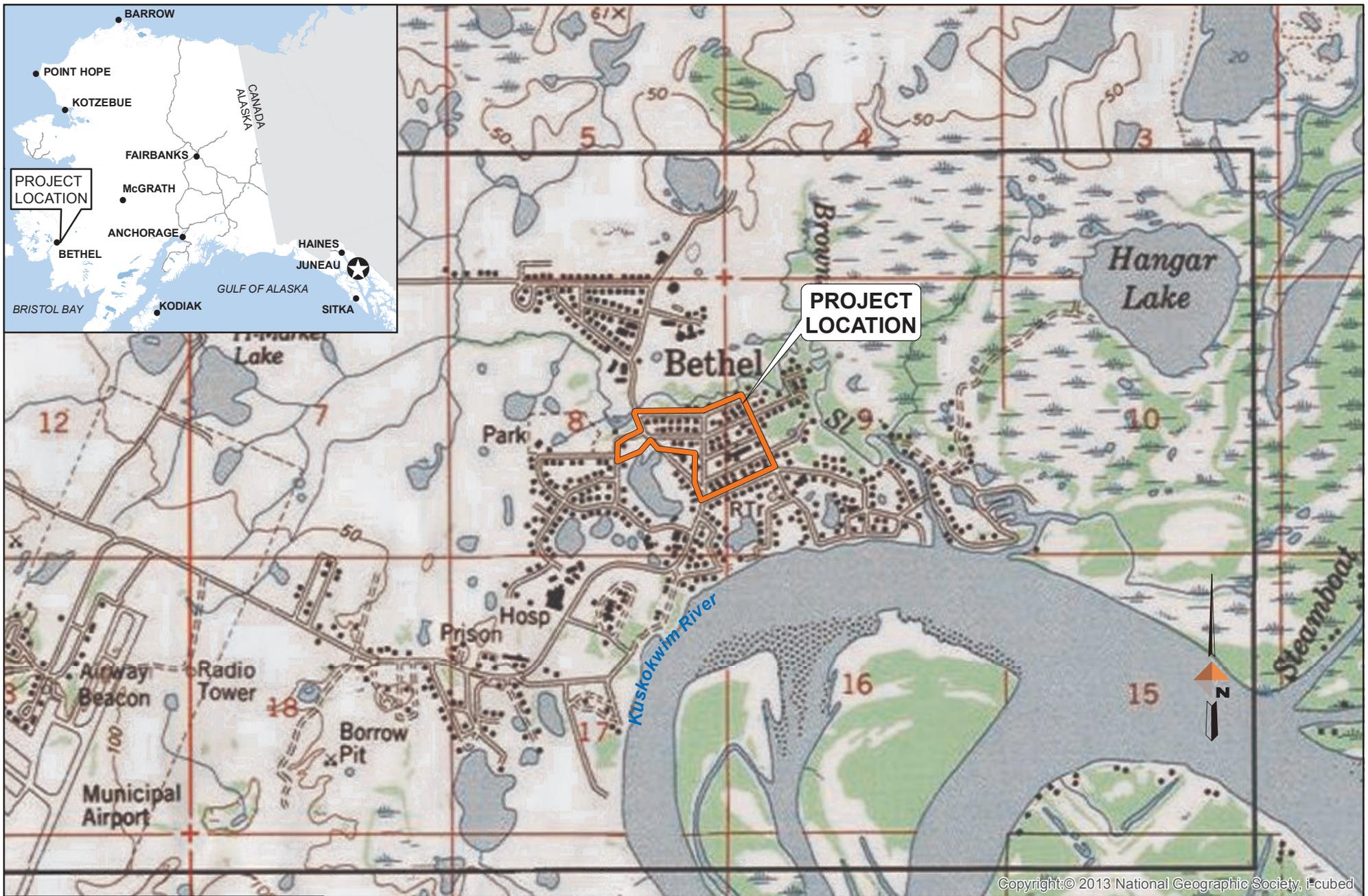
Figure 2 – Area of Potential Effect

Figure 3 – Schematic and Illustration of BTH-00013

Electronic cc w/enclosures:

Lucy Flynn O'Quinn, DOWL

Rob Hoffman, Orusaramuit Native Council

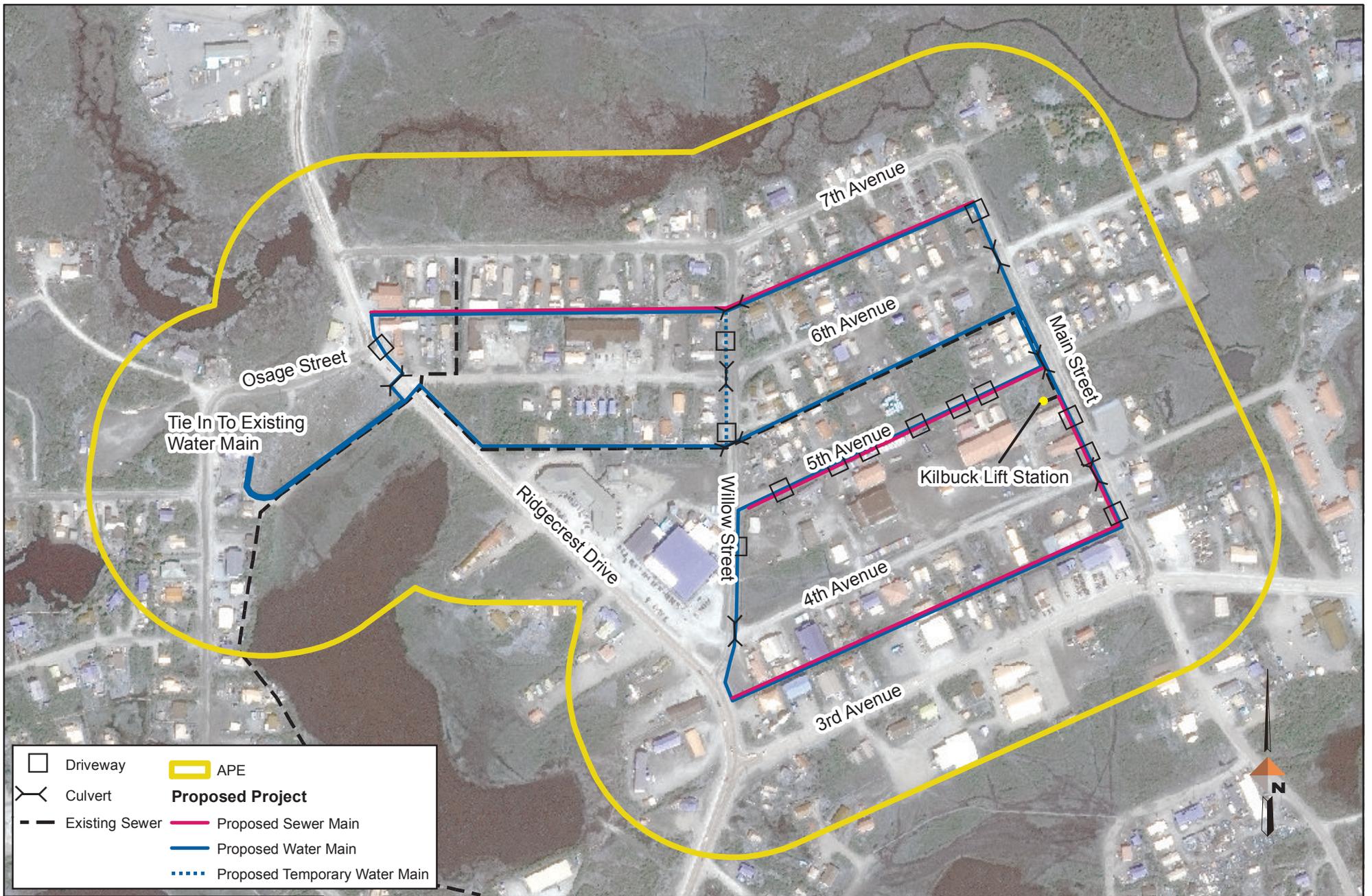


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Figure 1: Location Vicinity Map
 The Avenues Neighborhood Water & Sewer
 Bethel, Alaska

PROJECT	1529.50118.01
DATE	May 15, 2018





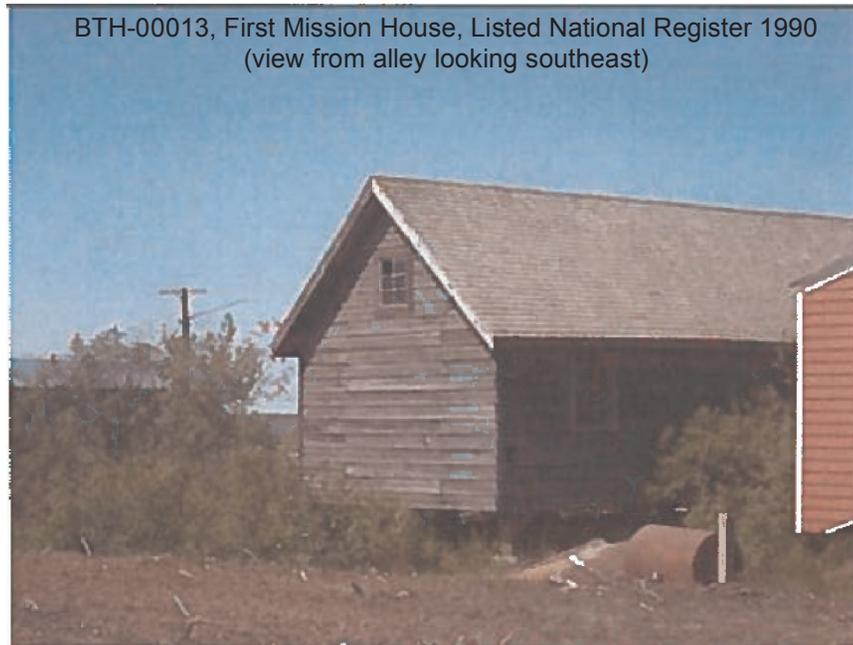
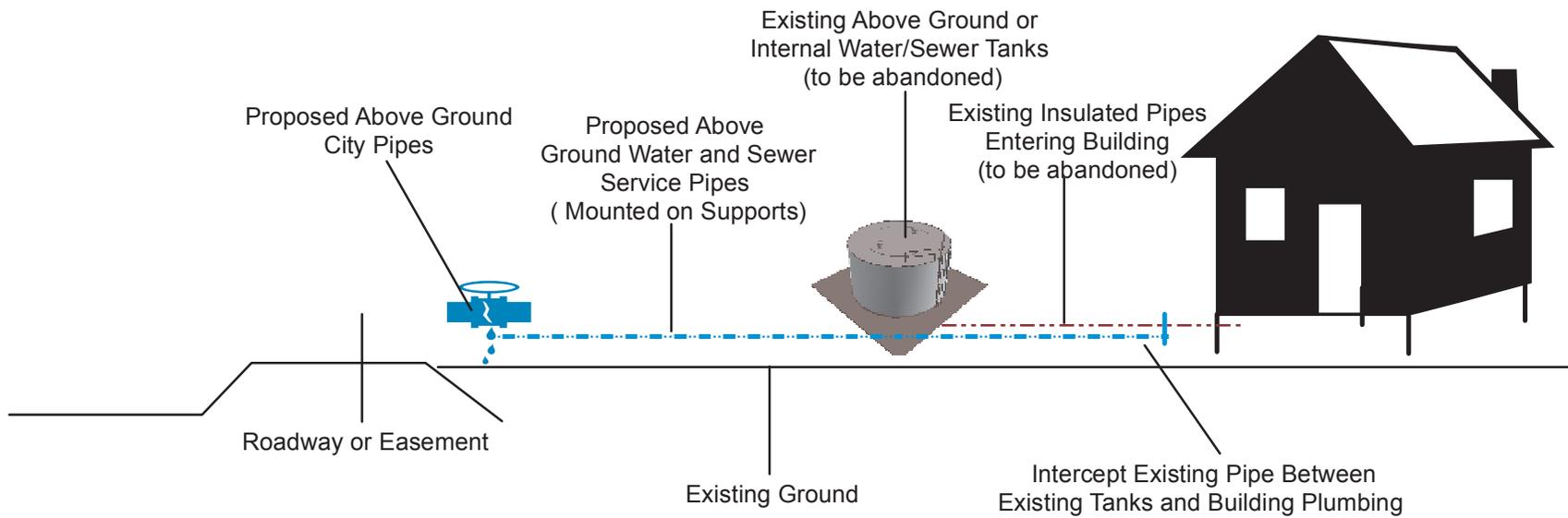
- Driveway
- Y Culvert
- - - Existing Sewer
- APE
- Proposed Project**
- Proposed Sewer Main
- Proposed Water Main
- ⋯ Proposed Temporary Water Main



Figure 2: Proposed Project APE
 The Avenues Neighborhood Water & Sewer
 Bethel, Alaska

PROJECT	1529.50118.01
DATE	May 15, 2018
0 125 250 500 Feet	

Proposed Piped Water and Sewer Connections (schematic)



APPENDIX E
DEC Contaminated Site
Summaries



Alaska Department of Environmental Conservation SPILL PREVENTION AND RESPONSE

[CONTAMINATED SITES](#) [PREVENTION PREPAREDNESS & RESPONSE](#) [RESPONSE FUND ADMIN](#) [REPORT A SPILL](#)

[Site Report / AT&T Alascom Bethel Earth Station](#)

You are here: [DEC](#) / [SPAR](#) / [CSP](#) / [SPAR Online Services](#) / [Contaminated Sites Search](#) / Site Report

SITE NAME: AT&T Alascom Bethel Earth Station

ADDRESS: 265 Main Street, South of 3rd Avenue, Bethel, AK 99559

FILE NUMBER: 2407.38.003

HAZARD ID: 3770

STATUS: Cleanup Complete

STAFF: IC Unit, 9074655229 dec.icunit@alaska.gov

LATITUDE: 60.795556

LONGITUDE: -161.759167

HORIZONTAL

DATUM:

We make every effort to ensure the data presented here is accurate based on the best available information currently on file with DEC. It is therefore subject to change as new information becomes available. We recommend contacting the assigned project staff prior to making decisions based on this information.

Problems/Comments

Elevated DRO contamination with detectable BTEX confirmed by lab analysis of soil samples taken near the active 2000 gallon AST area. Volume of soil estimated to exceed 40 cubic yards. Strong fuel odors and stressed vegetation observed. Field screening of the former AST location and septic system holding tank indicate that no contamination exceeding applicable cleanup levels according to 12/97 Phase II Site Investigation.

Action Information

ACTION DATE	ACTION	DESCRIPTION	DEC STAFF
-------------	--------	-------------	-----------

12/29/1997	Update or Other Action	Phase II assessment prepared by Woodward Clyde identified 2 areas of concern - septic tank area and above ground fuel tank. The AST site had levels of DRO as high as 6300 ppm with an estimated 40 cubic yards above 200 ppm.	Jim Frechione
5/8/2001	Site Added to Database	DRO contamination.	Bruce Wanstall
5/8/2001	Site Ranked Using the AHRM	Preliminary ranking based on Phase II Site Investigation 12/97.	Bruce Wanstall
2/20/2002	Update or Other Action	Improved latitude and longitude using MSU instead of USGS GNIS. Coordinates still suspect for accuracy.	No Longer Assigned
2/18/2003	Update or Other Action	Changed project manager from DB Administrator to Bob Glascott and changed site status from Inactive to Active.	Elizabeth Stergiou
2/27/2003	Update or Other Action	Spoke with RP, a summary report of all sampling activities is being drafted at this time. The report it expected to be completed in a month.	Bob Glascott
2/27/2003	Update or Other Action	Responsible Party field changed based on new information from PacificCorp Environmental Remediation Company.	Elizabeth Stergiou
10/15/2003	Update or Other Action	An investigation report by PacificCorp Environmental conducted a soil investigation in the area of the former AST. One sample (of six) exceeded the 250 ppm cleanup level. It was 597 ppm DRO. There is no indication if the impacted soil in the previous assessment was ever cleaned up.	Jim Frechione
10/28/2003	Institutional Control Record Established	The database entry will serve as the IC. It is intended to identify areas of contamination above 250 ppm DRO and requires DEC approval for off site transport of soil.	Jim Frechione
10/28/2003	Conditional Closure Approved	A no further remedial action decision was issued. It was determined that the migration to groundwater pathway was not complete (i.e. permafrost) and the DRO levels (597ppm and 6300 ppm) did not exceed inhalation or ingestion.	Jim Frechione
6/12/2012	Institutional Control Compliance Review	An IC review was conducted on this site and the staff assigned was changed from Bill O'Connell to IC Unit.	Evonne Reese
6/12/2012	Institutional Control Record Removed	This site meets the 2009 closure policy requirements therefore ICs can be removed. The default requirement of no offsite transport of soil or groundwater from this site still applies.	Evonne Reese

Contaminant Information

NAME	LEVEL DESCRIPTION	MEDIA	COMMENTS
DRO	Between Method 2 Migration to Groundwater and Human Health/Ingestion/Inhalation	Soil	

Control Type

TYPE	DETAILS
No ICs Required	

Requirements

DESCRIPTION	DETAILS
Advance approval required to transport soil or groundwater off-site.	



Alaska Department of Environmental Conservation
SPILL PREVENTION AND RESPONSE

[CONTAMINATED SITES](#) [PREVENTION PREPAREDNESS & RESPONSE](#) [RESPONSE FUND ADMIN](#) [REPORT A SPILL](#)

[Site Report: Alaska Commercial Co. - Bethel](#)

You are here: [DEC](#) / [SPAR](#) / [CSP](#) / [SPAR Online Services](#) / [Contaminated Sites Search](#) / Site Report

SITE NAME: Alaska Commercial Co. - Bethel

ADDRESS: Store & Marina, 135 Ridgecrest Drive, Bethel, AK 99559

FILE
2407.38.004
NUMBER:

HAZARD ID: 2109

STATUS: Cleanup Complete - Institutional Controls

STAFF: IC Unit, 9074655229 dec.icunit@alaska.gov

LATITUDE: 60.797011

LONGITUDE: -161.769497

HORIZONTAL
NAD83
DATUM:

We make every effort to ensure the data presented here is accurate based on the best available information currently on file with DEC. It is therefore subject to change as new information becomes available. We recommend contacting the assigned project staff prior to making decisions based on this information.

Problems/Comments

Two 2,000 gallon above ground storage tanks had leaked over time and impacted the soil and a thin layer of supra-permafrost groundwater at 3 to 5 feet below ground surface (bgs). In 1997, 1,000 gallons of diesel fuel reportedly spilled due to a malfunction in the fuel return line of the day tank in the generator building. Spill response efforts included recovery of approximately 200 gallons of fuel product, constructing dikes to prevent flow of product off-site, and the removal of a culvert. There have been 5 groundwater monitoring wells installed at this site to determine groundwater quality conditions and if contamination is migrating. The response actions have included excavation of 50 cubic yards of contaminated soil near the generator building. The soil was stockpiled on site in 1998 and expected to naturally attenuate over time. The soil was sampled in 2006 with the diesel range organics (DRO) concentrations below the cleanup level of 1,400 mg/kg DRO established for this site. The soil stockpile was then land spread on-site in September 2006. The soil samples from the limits of the excavation detected up to 5,000 mg/kg DRO but further removal was not considered practicable due to concerns for the integrity of the buildings foundation. The groundwater monitoring results also indicated the groundwater was contaminated near the generator shed and south of the AC Store towards Dull (Dall?) Lake. Nine years of monitoring indicate DRO remaining in the groundwater above cleanup levels but there appears to be a stable or decreasing trend since 1997. The Alaska Commercial (AC) Store is located in the community of

Bethel, approximately 2,000 feet north of the Kuskokwim River and approximately 800 feet northeast of Dull Lake. It is a commercial facility used for retail sales. A small building (known as the 'generator building') is located behind the store and houses the boiler that provides heat to the store. There is also a diesel generator to provide electricity in emergency situations. The AC Store has a groundwater well on site approximately 200 feet deep and within 25 feet of the generator building. The well was previously used as the drinking water source for the AC Store but the store is now served by municipal water and sewer utilities.

Action Information

ACTION DATE	ACTION	DESCRIPTION	DEC STAFF
10/30/1992	Preliminary Assessment Approved	(Old R:Base Action Code = SA1A - Phase I Site Assessment Approval). A SCG conducted a Phase I environmental Assessment. The findings are included in a report titled "Environmental Site Assessment for Alaska Commercial Company Stores and Other Related Properties, Volumes 1&2" dated October 30, 1992. The results of the Phase I indicated that potential sources of environmental concern were releases associated with the operation of the generators, the above ground storage tank which fueled the generators, and several 55 gallon storage drums. The floor of the generator room was reported to be heavily stained with oil under the generators and the soil under the generator building was visibly impacted.	Shah Alam
9/16/1993	Update or Other Action	(Old R:Base Action Code = RAPR - Remedial Action Plan Review (CS)). Reviewed a draft workplan: "Environmental Site Assessments for Community Enterprise Development of Alaska, August, 1993", prepared by Montgomery Watson and recieved by ADEC/WDO 9/3/93. Insufficient information was available for adequate plan review and approval. Phase I or II Site Assessments needed for most of the AC Store sites.	Eileen Olson
10/15/1993	Cleanup Level(s) Approved	Alternate Cleanup Levels Approved.	Ray Dronenburg
6/1/1994	Update or Other Action	(Old R:Base Action Code = RAPR - Remedial Action Plan Review (CS)). Reviewed the Environmental Assessment and Cleanup Plans for 33 properties - Final Report. Plans are approved except that 1) the department reserves the right to review and approve a stockpile plan and those plans should be provided with a 3 week review period; 2) should the collection and subsequent treatment of GW be required, a discharge permit for treated waters returned to the environment may be required; and 3) burning of waste oils for purposes other than heat recovery is prohibited.	Ray Dronenburg
11/18/1994	Update or Other Action	(Old R:Base Action Code = RARR - Remedial Action Report Review (CS)). After reviewing the "Draft Environmental Assessments and Cleanup Plans for 33 Property Transfers in 16 Alaskan Communities", additional corrective action is needed for this site.	Cindy Thomas
11/18/1994	Update or Other Action	(Old R:Base Action Code = SA2R - Phase II SA Review (CS)). Reviewed the "Draft Environmental Assessments and Cleanup Plans for 33 Property Transfers in 16 Alaskan Communities".	Cindy Thomas
9/21/1996	Update or Other Action	On September 21, 1996 a diesel spill of approximately 91 gallons was discovered at the site. The cause of the spill was an open bleeder valve on the day tank in the generator building. The spill leaked through a hole in the floor of the generator building and flowed under the store to an adjacent ditch, where it passed through a culvert under Ridgecrest Drive, and towards Dull Lake. An oil spill response team (BEPCO) blocked the culvert and pressure washed all the impacted areas, using the ditch as a collection trench. After pressure washing there was no evidence of contamination, the culvert was unblocked and water was allowed to drain.	Shah Alam
11/29/1996	Site Added to Database	Diesel contamination. Work has been accomplished this site.	Ray Dronenburg
12/1/1996	Update or Other Action	In July 1996, Alaska Village Environmental Services conducted remedial efforts at the site. The remedial activities were centered around the generator building in areas identified by the Phase II environmental assessment by Montgomery Watson. Remedial activities included injection of a mixture of oil breaker, microbes, nutrients and slow-release oxygen compounds.	Shah Alam
3/10/1997	Update or Other Action	On March 10, 1997, a diesel spill of approximately 25 to 80 gallons occurred. The source of the spill was a cracked oil filter on a backup generator located immediately outside the generator building (the store's regular generators inside the generator building were being repaired). Free product was removed from the ground using sorbent pads, and diesel soaked snow was shoveled into containers. Site soils were frozen which likely increased the recovery of the fuel spilled.	Shah Alam

5/16/1997	Update or Other Action	ADEC gave a partial (vertical extent) approval to a site assessment work plan submitted on April 25, 1997. ADEC staff asked them to submit another workplan for horizontal soil characterization.	Shah Alam
6/2/1997	Update or Other Action	In a telephone conversation with ADEC project manager (Shah Alam), the Northwest Company (Gwen Waedt) indicated that they would collect additional samples to characterize the horizontal extent of contamination.	Shah Alam
9/21/1997	Update or Other Action	Golder Associates submitted a site assessment report dated September 17, 1997 for ADEC's review.	Shah Alam
11/11/1997	Update or Other Action	On the morning of November 11, 1997, the manager of the ACC store in Bethel, Walt Pine, discovered a diesel spill at the generator building. He immediately stopped the flow of fuel and notified the Northwest Company. The spill was due to a malfunction of the float valve in the daytank. Failure of the valve allowed the pump to continue filling the daytank. Overflow return lines also failed. A petroleum contractor performed an audit and minor repairs to the system during the week of December 10, 1997. Approximately 1000 gallons of product was spilled. The product flowed from the daytank, located in the generator room, through holes in the floor and pooled in a low spot under the generator building and the store. Sorbent pads laid under the building to contain seepage from a previous spill helped to contain the product. Approximately 200 to 300 gallons were recovered with a vacuum truck. The remaining product was recovered utilizing sorbents.	Shah Alam
12/22/1997	Update or Other Action	Northwest Company submitted a letter report describing the November 11, 1997 spill.	Shah Alam
1/23/1998	Update or Other Action	ADEC staff (Alam and Frechione) met Gwen Waedt (the Northwest Company) to discuss cleanup issues. Alam asked her to submit additional information on the November 1997 spill. ADEC will review the document to see if surface water body (Dull Lake) was impacted.	Shah Alam
2/5/1998	Update or Other Action	ADEC received a letter report from Golder Associates describing location of oil spills (September 1996 - November 1997). The letter stated that the spills were generally confined to low areas around the generator shed and underneath the main store. The September 1996 spill followed the drainage toward the Dull Lake.	Shah Alam
4/2/1998	Update or Other Action	The Northwest Company assumed the responsibility for remediation of soil contamination identified in the Golder Associates report dated September 1997. The Northwest Company reserved the right to involve Alaska Village Environmental Management in the remediation of soils and/or ground water discovered later.	Shah Alam
4/21/1998	Site Ranked Using the AHRM	Ranking action added now because it was not added when the site was originally ranked.	Bill Petrik
6/17/1998	Meeting or Teleconference Held	ADEC project manager (Shah Alam) met the Northwest Company's (the company) Environmental Manager (Gwen Waedt) and their environmental consultant Golder Associates (Craig Boeckman) to discuss site cleanup issues of a contaminated site at the Alaska Commercial Store site in Bethel. The purpose of the meeting was to expedite review of a site assessment report that was submitted September 1997. The company has money available for remediation of this site this year. The company has hired a maintenance person with duties to maintain fuel tanks and supplies to prevent future spills.	Shah Alam
6/25/1998	Update or Other Action	ADEC provided (June 25, 1998) comments on the site assessment conducted in 1997 and overall site cleanup activities. Fuel system upgrade and implementation of a SPCC plan should precede site remediation. Site assessment is incomplete for groundwater and for data quality reasons. Additional characterization can continue together with corrective actions at the site. ADEC asked to be informed of the fuel system upgrade and implementation of a SPCC plan. ADEC also asked to submit a workplan for additional site assessment and corrective action.	Shah Alam
9/23/1998	Meeting or Teleconference Held	Meeting held where participants were Gwen Waedt, Max Schwenne, Craig Boeckman, Jim Frechione and Shah Alam. The Northwest Company wants to develop alternative cleanup levels using Method Three. Oasis is doing the computation. Proposed remediation is hotspot removal, landspreading and phytoremediation. The Northwest Company submitted a SPCC plan as requested previously.	Shah Alam
10/1/1998	Update or Other Action	Received a draft work plan for site investigation from Golder Associates. Also, received Method Three calculations to establish ACLs from OASIS.	Shah Alam
10/2/1998	Update or Other Action	ADEC issued a letter commenting on the draft work plan.	Shah Alam

10/13/1998	Update or Other Action	Don Marson (EPA) informed that ACC Store-Bethel SPCC plan does not meet the requirement. Don Marson informed Gwen Waedt that until recommended improvements are made the facility will be out of compliance.	Shah Alam
6/25/1999	Update or Other Action	Staff commented in a letter dated June 25, 1999 on a site assessment report and alternative cleanup level (ACL) request using Method Three. The ACL computation used an organic carbon content of 3.3% in soil, which is greater than the Department's default organic carbon content of 0.1%. There is no documentation of such a high level of organic carbon content. The laboratory used ASTM D4129-82 Modified method for the analysis. This method is a burn off test and cannot be used to determine organic carbon content for Method Three calculations. The Department suggests EPA Method 415.1 or SW-846 Method 9060. The soil samples were contaminated with petroleum hydrocarbons that interfere with the naturally occurring organic carbon content. In addition, samples were collected from a shallow depth, which may not be representative of subsurface organic carbon content.	Shah Alam
9/27/1999	Update or Other Action	ADEC received a letter dated September 23, 1999 from Golder Associates responding to ADEC letter dated June 25, 1999. In some instances, Golder has proposed to do additional work.	Shah Alam
10/15/1999	Site Ranked Using the AHRM	Site reranked considering repeated spills at this site. Also Groundwater Exposure Index Value changed	Shah Alam
11/1/1999	Update or Other Action	In response to ADEC staff (Alam) query, Golder Associates (Mark Musial) informed that following the Northwest Company's suggestion they went ahead and conducted additional site investigation as mentioned in the letter. The report will be submitted in about a month.	Shah Alam
7/26/2000	Update or Other Action	ADEC project manager, Shah Alam, visited the site.	Shah Alam
8/10/2000	Cleanup Level(s) Approved	ADEC has reviewed a site Assessment report dated April 2000 and cannot accept the proposed alternative cleanup levels (ACL) under Method Three. The methodology used to determine ACL values was directly related to the total organic carbon content present in the soil. The soil samples collected for organic carbon content were contaminated with petroleum hydrocarbons that may result in elevated concentrations of naturally occurring organics. As a possible resolution of the different organic carbon levels (without re-sampling), the ADEC is willing to accept a soil organic carbon value of 0.64 percentage as an average for this site. This value is derived by subtracting petroleum concentrations from the lowest reported organic carbon value in Table 7 of the report. If the organic carbon content of 0.64% is used it would result in an ACL of 1,400 mg/kg for both gasoline (GRO) and diesel range organics (DRO) using Method Three (18 AAC 75.340(e)).	Shah Alam
4/18/2006	Update or Other Action	Site currently owned by The North West Company, with Alaska Village Initiatives retained as an affiliate for clean up of site. Updated ownership in database.	Shannon Oelkers
9/27/2006	Update or Other Action	Received call from Jan Dike, Golder Assoc, requesting approval to decommission stockpiled soils. Soils are to be land spread at their current site and used as shipping crate storage. ADEC approved the decommission of the stockpiled soils.	Shannon Oelkers
9/28/2006	Update or Other Action	Landspreading of stockpile approved.	Shannon Oelkers
9/28/2006	Update or Other Action	Received annual monitoring report from Golder Assoc. on 7/15/2005. DRO contamination above ADEC cleanup levels still present in MW-2, MW-4. Stockpiled soils are below ACL of 1,400 mg/kg of DRO established for this site. Consultant recommends decommissioning stockpiled soils (50 cy) and closure with further monitoring of MW-4. Consultant presented Mann-Kendall test for MW-1, MW-2, and MW-3 showing stability of DRO levels.	Shannon Oelkers
10/10/2006	Update or Other Action	Spoke with Mike Griffin - ACC Store contact for environmental issues in Alaskan stores. He confirmed that the on-site well was still intact, although not currently used. The ACC store is connected to municipal water. DW wells must be greater than 30 feet deep in Bethel to penetrate the permafrost layer.	Shannon Oelkers
11/16/2006	Conditional Closure Approved	Based on the information provided to date, ADEC has determined that the cleanup actions employed at the AC Store in Bethel have been effective in removing the majority of the contamination at the site. The contamination has been removed to the extent practicable with residual contamination remaining in the soil and supra-permafrost groundwater beneath the generator building. The nature and extent of the remaining contamination does not pose an unacceptable risk to human health or the environment provided site specific conditions and/or controls are attached to the property.	Shannon Oelkers

11/16/2006	Institutional Control Record Established	1. An Institutional Control will be added to the ADEC Contaminated Sites Database identifying the nature and extent of contamination remaining on site. 2. In accordance with 18 AAC 75.370(b), ADEC approval must be obtained prior to removal and/or disposal of soil or groundwater from this site. 3. ADEC must be notified (and approve) the installation of any groundwater wells at this site. 4. A groundwater monitoring plan shall be prepared that includes the monitoring of MW-1, MW-2 and MW-4 annually during the summer season in 2007 and 2008. Samples will be analyzed for DRO using the AK 102 method. In addition, MW-3 and MW-5 shall be decommissioned in accordance with ADEC procedures. 5. Sample the former drinking water well prior to decommissioning it using EPA Method 524.2.	Shannon Oelkers
2/5/2007	Update or Other Action	Golder Associates reports that the potable well on-site is still in use. A revision of the IC's on this site is requested.	Shannon Oelkers
11/1/2007	Exposure Tracking Model Ranking	Initial ranking with ETM completed for source area id: 73087 name: auto-generated pm edit Alaska Commercial Prop. - Bethel	Keather McLoone
3/24/2008	Update or Other Action	Receipt of store drinking water analytical results - nondetect for DRO and VOCs. Report to cover this and August 2008 groundwater sampling is forthcoming.	Keather McLoone
12/1/2008	Update or Other Action	Communication with Jan Deick, consultant, to clarify whether the groundwater sampling occurred last summer at this site or not. According to him, the trip was cancelled due to a miscommunication regarding likelihood of water being found in the wells during late August and the plan for next year is to go out midsummer.	Keather McLoone
12/1/2009	Report or Workplan Review - Other	Receipt of 2009 Water Monitoring AC Value Center Bethel by Golder Associates. Sampling included MW-1A and MW-2 for DRO/RRO and the onsite drinking water well for VOCs by 524.2. MW-3 and MW-4 were reported to be not present and removed during the decommission of the biocell. MW-5 was decommissioned during this site visit. Drinking water results were below MCLs. Only DRO in MW-2 was above Table C at 3.78 mg/L; however, the overall trend for DRO in this well is decreasing since the initial sampling took place in 1997. Golder recommends a long term monitoring complete be requested.	Keather McLoone
2/24/2010	Long Term Monitoring Complete	The Alaska Department of Environmental Conservation (ADEC) Contaminated Sites Program issued a Conditional Closure with Institutional Controls Record of Decision on November 15, 2006 which stipulated ongoing groundwater monitoring. An amendment to this decision was issued on February 22, 2007 which added monitoring of the onsite drinking water well to the conditions of the original decision letter. ADEC recently reviewed the 2009 Water Monitoring – AC Value Center, Bethel, Alaska report. Only DRO in MW-2 was above Table C at 3.78 mg/L; however, the overall trend for DRO in this well is decreasing since the initial sampling took place in 1997. Also, drinking water results were below MCLs. Therefore, ADEC believes that long term monitoring can be considered complete. Site closure (without conditions) will be considered when sampling confirms that soil and groundwater meet the 18 AAC 75 cleanup levels established for this site. Current ADEC policy for Cleanup Complete with Institutional Controls includes a reporting requirement. Any future change in land use may impact the exposure assumptions cited in this document. If land use and/or ownership changes, current ICs may not be protective and ADEC may require additional remediation and/or ICs. Therefore, Alaska Commercial Company shall report to ADEC every five years to document land use, or report as soon as Alaska Commercial Company becomes aware of any change in land ownership and/or use, if earlier. The report can be sent to the local ADEC office or electronically to DEC.ICUnit@alaska.gov. Monitoring wells MW-1 and MW-2 should be decommissioned according to an ADEC approved workplan. Monitoring of the drinking water well should continue to include sampling for volatile organic compounds according to ADEC Drinking Water Program sampling schedule requirements.	Keather McLoone
2/24/2010	Exposure Tracking Model Ranking	A new updated ranking with ETM has been completed for source area 73087 auto-generated pm edit Alaska Commercial Prop. - Bethel.	Keather McLoone
12/13/2011	Institutional Control Compliance Review	IC review conducted, reminder system set up for 2015, and staff name changed to IC Unit.	Evonne Reese
3/18/2015	Institutional Control Update	An IC reminder letter was issued to the responsible party on this date.	Kristin Thompson
8/31/2015	Institutional Control Update	Received an email confirmation from the responsible party that there have been no changes in land use or ownership since the 2010 closure.	Evonne Reese

11/21/2016	Report or Workplan Review - Other	ADEC staff reviewed the November 9, 2016 dated Bethel AC Value Center MW-1 and MW-2 Decommissioning Report submitted by Golder Associates. It was discovered that MW-1 had been removed sometime in 2011 during installation of a new 2000-gallon aboveground storage tank (AST); this new AST is located on a fill pad over the old location of MW-1. Therefore, only MW-2 was decommissioned on August 4, 2016 following ADEC's Monitoring Well Guidance. All monitoring wells at this site that were installed and used during the groundwater monitoring from 1997 to 2009 have been decommissioned and removed.	Kristin Thompson
11/25/2016	Institutional Control Compliance Review	IC compliance review conducted. Groundwater monitoring at the site is complete and the wells have been decommissioned. The groundwater monitoring institutional control requirement was removed. Monitoring of the drinking water well should continue to include sampling for volatile organic compounds according to ADEC Drinking Water Program sampling schedule requirements. All other institutional controls remain in effect. A letter with this information was issued to the landowner. Reminder system set for the five-year review in 2021.	Kristin Thompson

Contaminant Information

NAME	LEVEL DESCRIPTION	MEDIA	COMMENTS
DRO	Between Method 2 Migration to Groundwater and Human Health/Ingestion/Inhalation	Soil	
DRO	> Table C	Groundwater	

Control Type

TYPE	DETAILS
Institutional Control Management Plan	

Requirements

DESCRIPTION	DETAILS
Groundwater Use Restrictions	ADEC must be notified (and approve) the installation of any groundwater wells at this site.
Advance approval required to transport soil or groundwater off-site.	Standard condition.
Movement or use of contaminated material (including on site) in a manner that results in a violation of the water quality standards is prohibited (18 AAC 70)	Standard condition.
Other	Monitoring of the drinking water well should continue to include sampling for volatile organic compounds according to ADEC Drinking Water Program sampling schedule requirements (Water System Number AK2270427).
Periodic Review	Alaska Commercial Company shall report to ADEC every five years to document land use, or report as soon as Alaska Commercial Company becomes aware of any change in land ownership and/or use, if earlier.
Excavation / Soil Movement Restrictions	In accordance with 18 AAC 75.370(b), ADEC approval must be obtained prior to removal and/or disposal of soil or groundwater from this site.



Alaska Department of Environmental Conservation SPILL PREVENTION AND RESPONSE

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SITE NAME: AKARNG Bethel OMS

ADDRESS: 470 4th Avenue, Bethel, AK 99559

FILE NUMBER: 2407.38.002

HAZARD ID: 3049

STATUS: Cleanup Complete

STAFF: ,

LATITUDE: 60.795725

LONGITUDE: -161.767226

HORIZONTAL DATUM: WGS84

We make every effort to ensure the data presented here is accurate based on the best available information currently on file with DEC. It is therefore subject to change as new information becomes available. We recommend contacting the assigned project staff prior to making decisions based on this information.

Problems/Comments

Petroleum contamination in soil. DRO reported at 570 and 880 mg/kg near the footprint of an underground storage tank (UST) and former ASTs. Matrix score of 32 (Level B). A private well (non-potable for sanitary uses only) is located at the armory, less than 500' from the Organizational Maintenance Shop. A few excavations have been completed and as of 8/2016, the site meets ADEC cleanup levels.

Action Information

ACTION DATE	ACTION	DESCRIPTION	DEC STAFF
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1/30/1998	Update or Other Action	Received Preliminary Assessment/Site Investigation report, prepared by Ogden Environmental and Energy Services Co., Inc.	Scott Pexton
4/29/1998	Site Added to Database	Site added by staff.	Scott Pexton
4/29/1998	Site Ranked Using the AHRM	Site ranked by staff based on information provided in a Final Report (January 1998), Preliminary Assessment/Site Investigation at the Bethel OMS, prepared for the AK-ARNG by Ogden Environmental and Energy Services Co., Inc.	Scott Pexton
10/11/2000	Update or Other Action	Letter sent to Norman Straub suggesting the ADEC Voluntary Cleanup Program as a cost-effective cleanup approach for this site.	Scott Pexton
3/15/2004	Update or Other Action	File number assigned: 2407.38.002.	Sarah Cunningham
3/14/2008	Exposure Tracking Model Ranking	Initial ranking with ETM completed.	Debra Caillouet
2/3/2010	Meeting or Teleconference Held	Staff participated in the Installation Action Plan meeting.	Debra Caillouet
5/7/2012	Report or Workplan Review - Other	Draft Work Plan, Bethel Armory Facility Maintenance Shop, Site Investigation April 25, 2012	Debra Caillouet
8/20/2012	Report or Workplan Review - Other	Draft Bethel Armory Facility Maintenance Shop, Site Investigation Cleanup Determination Report, August 2012 ADEC does not concur with the recommendation to grant the site a cleanup complete determination. There are two major deficiencies in the site characterization. 1. The samples that had the highest PIDF readings were SB01-02 and SB01-3,5. No laboratory analysis was performed for these samples. 2. The Soil Boring Log for SB07 states there was a strong petroleum odor so the boring was stopped. No PID readings were obtained nor was a lab sample submitted for analysis. From the information available in this report, these two locations were probably the areas of the highest contamination remaining. Without laboratory data, conclusions can not be drawn. ADEC does not agree that the soil boring material can be spread on-site. The deficiencies in site characterization do not allow conclusions about the concentrations of contaminants.	Debra Caillouet
12/3/2012	Cleanup Level(s) Approved	Bethel Armory Facility Maintenance Shop Site Investigation Cleanup Determination Report November 2012 and Record of Decision ADEC concurs that the migration to groundwater pathway at this site is incomplete as there is permafrost at the site and no groundwater has been found to 30' below ground surface. Contamination in the soil exists to 7.5 feet below ground surface. The most applicable pathways for this site are then the ingestion and inhalation or direct contact pathways. ADEC concurs with the cleanup levels proposed of: Benzene 11 mg/Kg Toluene 220 mg/Kg Ethylbenzene 110 mg/Kg Xylenes 63 mg/Kg Gasoline Range Organics 1400 mg/Kg Diesel Range Organics 10250 mg/Kg Residual Range Organics 10000 mg/Kg 1-Methylnaphthalene 280 mg/Kg 2-Methylnaphthalene 280 mg/Kg Benzo(g,h,i)perylene 1400 mg/Kg	Debra Caillouet
9/8/2015	Cleanup Plan Approved	Staff approved a remedial action plan this date. The document was titled Final Remedial Action Plan, and was prepared by Brice Environmental Services Corporation, dated Sept. 2, 2015.	Anne Marie Palmieri
12/17/2015	Update or Other Action	Staff changed to Danielle Duncan and hard file transferred to the Juneau office.	Kristin Thompson
2/16/2016	Report or Workplan Review - Other	Rec'd the draft Remedial Action Report this date.	Danielle Duncan
2/29/2016	Update or Other Action	Sent comment table today - nothing major. Once the comments are accepted/reviewed, a final RAR will be issued and the site will be closed. The report does not state how much volume of clean overburden soil there was although 3 analytical samples were collected from it – please add this information. In addition, please add the field screening values for the clean overburden. Table 2 indicates that EPA SW8260 was used but the TestAmerica lab report indicates that 8021B was used – please correct table to reflect. Sample 15-BET-WC was analyzed for lead but the report does not discuss why this was done.	Danielle Duncan
8/9/2016	Report or Workplan Review - Other	Rec'd the final Remedial Action Report this date.	Danielle Duncan
8/18/2016	Site Characterization Report Approved	Approved the Final Remedial Action Report this date. Approximately 9 cubic yards of contaminated soil was excavated from the site and stored in Super Sacks prior to disposal at the	Danielle Duncan

Columbia Ridge Landfill. The 9 confirmation samples were analyzed for DRO, RRO, GRO, and BTEX. Ten per cent of the samples were also analyzed for PAHs. Analytical results for the confirmation samples collected from the excavation limits indicated all contaminant concentrations are less than ADEC-approved cleanup levels. The ADEC anticipates making a cleanup complete determination for the site in the near future.

8/19/2016	Exposure Tracking Model Ranking	A new updated ranking with ETM has been completed for source area 74024 ASTs.	Danielle Duncan
8/24/2016	Cleanup Complete Determination Issued		Danielle Duncan

Contaminant Information

NAME	LEVEL DESCRIPTION	MEDIA	COMMENTS
DRO	< Method 2 Most Stringent	Soil	The maximum DRO confirmation sample had a concentration of 190 mg/kg.
RRO	< Method 2 Most Stringent	Soil	The maximum RRO concentration in confirmation samples was 300 mg/kg.
GRO	< Method 2 Most Stringent	Soil	The maximum GRO concentration in confirmation samples was 130 mg/kg.
BTEX	< Method 2 Most Stringent	Soil	The maximum BTEX result from confirmation samples was ethylbenzene at 1.3 mg/kg.

Control Type

TYPE	DETAILS
No ICs Required	

Requirements

DESCRIPTION	DETAILS
Advance approval required to transport soil or groundwater off-site.	
Movement or use of contaminated material (including on site) in a manner that results in a violation of the water quality standards is prohibited (18 AAC 70)	

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Alaska Department of Environmental Conservation
SPILL PREVENTION AND RESPONSE

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SITE NAME: Kuskokwim Inn/Long House Bethel Inn

ADDRESS: 751 Third Avenue, Bethel, AK 99559

FILE
 2407.38.026
NUMBER:

HAZARD ID: 3206

STATUS: Cleanup Complete - Institutional Controls

STAFF: IC Unit, 9074655229 dec.icunit@alaska.gov

LATITUDE: 60.794722

LONGITUDE: -161.759167

HORIZONTAL
 NAD83
DATUM:

We make every effort to ensure the data presented here is accurate based on the best available information currently on file with DEC. It is therefore subject to change as new information becomes available. We recommend contacting the assigned project staff prior to making decisions based on this information.

Problems/Comments

Diesel contaminated soils discovered during a 1000-gallon storage tank removal on July 1999. Approximately 150 cubic yards of contaminated soil was excavated and stockpiled offsite at O'Brien Construction's equipment yard. Soil later returned to site located at Lot 5, Block 15 USS 3230B, Bethel Townsite. Saturated soil was observed at approximate depth of 12-13 feet below ground surface. The Kuskokwim Inn has been renovated is now called the Bethel Longhouse Inn. The Inn has a drinking water well that terminates at approximately 400 feet depth. The well is located less than fifty feet southeast (downgradient) of the former tank location.

Action Information

ACTION	ACTION	DESCRIPTION	DEC STAFF
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DATE

DATE			
7/22/1999	Update or Other Action	Soil excavation of 100 cubic yards before July 14, 1999. Additional 50 cubic yards excavated on July 21-22, 1999. All 150 cubic yards stockpiled at the O'Brien Construction's equipment yard.	Shah Alam
8/27/1999	Notice of Violation	Notice of Violation and Request for Corrective Action issued by Jim Frechione.	Shah Alam
9/9/1999	Update or Other Action	Restoration Science and Engineering representing O'Brien Construction submitted site status and preliminary site contamination data.	Shah Alam
9/22/1999	Site Added to Database	By staff. Diesel contamination.	Shah Alam
9/23/1999	Update or Other Action	Alam requested final laboratory analysis data and a work plan for stockpiled soil.	Shah Alam
11/30/1999	Update or Other Action	ADEC received a report titled "Heating Oil UST Site Assessment" from the Restoration Science and Engineering.	Shah Alam
12/9/1999	Site Ranked Using the AHRM	Initial ranking.	Shah Alam
12/10/1999	Update or Other Action	Staff wrote O'Brien Construction asking to characterize the contaminated ground water and to remediate contaminated soil stockpile. Staff also requested additional information regarding the contaminated soils remaining under the building foundation.	Shah Alam
7/26/2000	Update or Other Action	ADEC project manager, Shah Alam, visited the site.	Shah Alam
8/16/2000	Cleanup Plan Approved	Staff approved a cleanup workplan. The workplan involves additional site characterization and landfarming of stockpiled contaminated soils (150 cubic yards).	Shah Alam
1/12/2001	Update or Other Action	Received Site Assessment and Soil Remediation report, prepared by Restoration Science and Engineering.	Scott Pexton
1/19/2001	Meeting or Teleconference Held	Scott Pexton, Shah Alam and Jim Frechione met with David Nyman and Simon Evans of Restoration Science and Engineering to discuss the Site Assessment and Soil Remediation report.	Scott Pexton
1/26/2001	Long Term Monitoring Established	Letter sent to Simon Evans of Restoration Science and Engineering with ADEC approval to sample the Kuskokwim Inn drinking water well (currently inactive), monitor water elevations quarterly and collect at least one more round of water samples at monitoring wells MW-1 through MW-4 and collect soil samples in August 2001 to evaluate the performance of the on-site soil treatment cell. ADEC requested a report summarizing monitoring and sampling activities be submitted by the end of January 2002.	Scott Pexton
3/20/2001	Update or Other Action	Received a Summer 2001 Work Plan prepared by Restoration Science and Engineering. Also, received a letter from Restoration Science and Engineering with proposed alternative cleanup levels for DRO in soil. Proposed ACL is 887 mg/kg based on a Method 3 approach with proposed modifications to default parameters for hydraulic gradient, hydraulic conductivity, fraction of organic carbon, and source length.	Scott Pexton
4/20/2001	Cleanup Level(s) Approved	ADEC concurs with the proposed modifications to equation parameters used for calculating the method three soil cleanup level for DRO at the Kuskokwim Inn site. In accordance with 18 AAC 75.340 (e), ADEC approves an alternative soil cleanup level for DRO at 887 mg/kg for the migration to groundwater pathway.	Scott Pexton
4/20/2001	Update or Other Action	Letter sent to David Nyman of Restoration Science and Engineering with cleanup plan approval. The plan describes the following tasks to be undertaken during the summer 2001 field season: Till soil in the treatment cell three times per week for the first three weeks with an agricultural or hand tiller beginning in late April or early May extending through early June 2001; Continue to till soil once per week through the end of August 2001; Dewater sump in treatment cell as needed and store pumped water in a portable tank on site until arrangements are made for proper disposal; Plant grass on soil in the treatment cell during August; Collect 60 samples for field-screening using a photo-ionization detector (PID); Based on the highest PID readings, analyze six soil samples for GRO/BTEX using AK101EPA 8021B and for DRO/RRO using AK102/103.	Scott Pexton
6/7/2001	Update or Other Action	Received faxed letter from Restoration Science and Engineering with request for modifications to Summer 2001 work plan.	Scott Pexton

6/11/2001	Update or Other Action	Letter sent to David Nyman of Restoration Science and Engineering with ADEC approval of proposed modifications to 2001 cleanup plan. The modified plan describes the following tasks: Collect 40 samples for field-screening using a photo-ionization detector (PID) from the upper eight inches of approximately 100 cubic yards of soil in the treatment cell; Collect three closure samples plus one QA/QC duplicate sample (for DRO/RRO and GRO/BTEX analysis) from the soil locations that yield the highest PID readings; Seek ADEC approval before removal or disposal of treated soil; Continue to till impacted soil until closure samples are obtained.	Scott Pexton
6/14/2001	Update or Other Action	Received letter report from Restoration Science and Engineering with groundwater sampling results from monitoring wells and an unused private drinking water well. Non-detectable concentrations were reported for all constituents in the drinking water well which was sampled for GRO/BTEX, DRO/RRO, PAH SIMS, VOCs, nitrates/nitrites, and total coliform. Of the five monitoring wells, three were sample as MW-1 did not have sufficient recharge within 24 hours and MW-4 was frozen. Lab results reported DRO at 17.2 mg/L and benzene at 0.0067 mg/L from MW-5; MW-2 and MW-3 had non-detectables for GRO/BTEX and DRO/RRO.	Scott Pexton
7/19/2001	Update or Other Action	Received letter report from Restoration Science and Engineering with soil laboratory results from samples collected from the upper 6 to 8 inches of the landfarmed soil. Samples were selected for lab analysis based on field screening results (PID) and result of the four samples ranged from 114 to 200 mg/kg DRO. GRO and BTEX were undetected. Letter requested permission to spread the treated soil on site.	Scott Pexton
7/26/2001	Update or Other Action	Received letter from Restoration Science and Engineering with proposed sampling plan for approximately 75 cubic yards of petroleum impacted soil remaining in the landfarming treatment cell.	Scott Pexton
7/31/2001	Update or Other Action	Letter sent to David Nyman of Restoration Science and Engineering with ADEC approval of sampling results and request to spread onsite the treated soil removed from upper six to eight inches of the treatment cell. Letter also included ADEC approval of sampling plan for remaining petroleum impacted soil in the treatment cell.	Scott Pexton
9/27/2001	Update or Other Action	Received letter report from Restoration Science and Engineering with confirmation soil sampling results of landfarm treated soil from then remediation treatment cell. GRO/BTEX and RRO met method two cleanup levels. DRO ranged from 341 to 675 mg/kg, which met the approved method three alternative cleanup levels of 887 mg/kg.	Scott Pexton
9/28/2001	Update or Other Action	Received letter report from Restoration Science and Engineering with groundwater monitoring results. DRO, RRO, and benzene at 18.5, 1.19, and 0.007 mg/L, respectively reported in groundwater sample from MW-5. Other four wells reported as undetected.	Scott Pexton
10/4/2001	Update or Other Action	Received confirmation sample lab data sheets. Letter sent to David Nyman of Restoration Science and Engineering with approval to dispose the treated soil onsite in a non-environmentally sensitive area with the following conditions: (1.) The treated soil must be placed at the site within the property boundaries of Lot 5, Block 15, U.S. Survey Number 3230B, Townsite of Bethel, Alaska; and, (2.) After placement of the treated soil within Lot 5, the soil shall not be moved to another location unless prior ADEC approval is obtained in accordance with 18 AAC 75.325 (i).	Scott Pexton
1/17/2002	Update or Other Action	Letter received from Restoration Science & Engineering with groundwater monitoring results and a request for No Further Remediation Planned. Monitoring wells MW-1 through MW-4 show hydrocarbon levels as undetectable. Monitoring well MW-5 (sampled in August 2000, May 2001, and August 2001) had DRO at concentrations ranging from 16 to 18 mg/L at every sampling event; benzene reported at 0.007 mg/L during August 2001. Letter also indicated that the previously treated soil had been spread within the property boundaries at the location where it had been treated.	Scott Pexton
2/19/2002	Update or Other Action	Letter received by ADEC from the Department of Law indicating that a cost recovery check was received from the Brotherton Disbursement Account (Bill #CO25090).	Scott Pexton
4/15/2002	Site Ranked Using the AHRM	Site reranked based on information in Restoration Science & Engineering groundwater monitoring reports. Groundwater usage value changed from 0.4 to 0.8.	Scott Pexton
5/29/2002	Cleanup Level(s) Approved	See Record of Decision. The applicable groundwater cleanup levels are 1.5 mg/L for DRO, 1.1 mg/L for RRO, and 0.005 mg/L for benzene.	Scott Pexton
5/29/2002	Institutional Control	See Record of Decision.	Scott Pexton

	Record Established		
5/29/2002	Record of Decision	<p>ADEC DECISIONS: Institutional Controls Required. A to ensure compliance with the applicable alternative soil cleanup level. A potential exists that some contaminated soil remains under or in close proximity to existing buildings in the vicinity of the former tank location. If buildings are removed in the future, DRO or benzene contaminated soil may be encountered and should be characterized and managed in accordance with the site cleanup rules. Also, groundwater in the vicinity of monitoring well MW-5 contains residual concentrations of DRO and benzene that exceed the applicable groundwater cleanup levels provided in Table C at 18 AAC 75.345. The institutional control will consist of a Notice of Environmental Cleanup that must be recorded in the State of Alaska Bethel District Recording Office. The Notice will describe the areas with known or potential residual contamination in soil and groundwater on the property. In addition, an entry into the ADEC Contaminated Sites Program's database will be made to indicate that an institutional control has been established to require prior approval by ADEC before moving or disposing of soil from the current disposal area to another location. Long-Term Groundwater Monitoring Required. The applicable groundwater cleanup levels are 1.5 mg/L for DRO, 1.1 mg/L for RRO, and 0.005 mg/L for benzene. Samples collected from monitoring well MW-5 during the most recent sampling event in August 2001 were reported with DRO at 18.5 mg/L, RRO at 1.19 mg/L and benzene at 0.007 mg/L. Monitoring well MW-5 is located less than fifty feet away from a drinking water well that may be used to supply water to hotel customers at the Long House Bethel Inn. At this time, it is unclear how the drinking water well was constructed. The well was drilled to a termination depth of approximately 400 feet and appears to pump water from a confined aquifer that is separated from the shallow groundwater by over 300 feet of permafrost soil. According to Restoration Science & Engineering, the substantial stratigraphic separation between the two aquifers indicate that shallow groundwater from MW-5 cannot impact the confined aquifer drinking water source. However, it appears that the drinking water well does not have the necessary and required permits to construct or operate the well as a Class B Public Water System. Therefore, in accordance with 18 AAC 75.345 (h), the ADEC Contaminated Sites Program has determined that long-term monitoring is required. The drinking water well and three of the existing monitoring wells must be sampled at least twice per year and accurate water elevations measured at the three monitoring wells. The monitoring program shall continue until ADEC makes a determination that there is a stable or decreasing trend in contaminant concentrations. The ADEC Contaminated Sites Program requests submittal of a groundwater monitoring plan. The plan must describe how semi-annual sampling of the drinking water well and monitoring wells MW-1, MW-2 and MW-5 will be conducted during 2002. Groundwater samples must be collected by a qualified person and analyzed for DRO/RRO using AK methods 102/103 and for benzene using EPA Method 8021 or another method approved by ADEC. After one year of monitoring, ADEC will evaluate the results to interpret if a concentration trend is increasing, decreasing, or stable. The ADEC Drinking Water Program may have additional requirements with respect to the drinking water well. Monitoring Well Decommissioning Required Under 18 AAC 75.345 (j), groundwater must be installed, developed, and decommissioned in accordance with the department's Recommended Practices for Monitoring Well Design, Installation, and Decommissioning, or another approved method. Any well installed that is unusable or impractical to use should be decommissioned. ADEC has determined that monitoring wells MW-3 and MW-4 are no longer needed for monitoring purposes and may be unusable or impracticable to use. Therefore, a qualified person should properly decommission these two monitoring wells during 2002. ADEC requests submittal of a report that describes the methods used to decommission monitoring wells MW-3 and MW-4.</p>	Scott Pexton
8/1/2002	Update or Other Action	ADEC project management transferred from Scott Pexton to Jim Frechione	Scott Pexton
8/6/2004	Update or Other Action	Groundwater monitor report was submitted by Restoration Science & Engineering. GW samples were collected on June 26, 2004 from MW 1, 2 nad 5. MW 5 had DRO (13 mg/l) and benzene (7.5 mg/l) above Table C levels. The drinking water well was also sampled and detected low levels of DRO (0.13 mg/l) and RRO (0.3 mg/l) which was attributed to naturally occurring organics versus fuel. Two wells were decommissioned (MW 3 and 4). GW sampling will continue on a semi-annual basis as required by the ROD.	Jim Frechione
11/8/2005	Update or Other Action	Project manager changed from Frechione to Horwath, and file transferred to Soldotna.	Sarah Cunningham
11/22/2005	GIS Position Updated	Using Figure 1 from a Site Assessment and Soil Remediation Kuskokwin Inn, Bethel, Lot 5 Block 15, U.S. Survey No. 3230B Townsite of Bethel, from Bethel Boys, LLC, dated December 2000, in conjunction with TopoZone Pro, entered the coordinates for this site. Metadata includes USGS Topo Map 1:63K, TopoZone Pro Street Maps, Black and White Aerial Photo, on a Medium Size Map, View Scale 1:24,000, Coordinated Datum NAD83. Moderate to High degree of confidence in accuracy of location.	Alyce Hughey
11/22/2005	Update or Other Action	Project manager changed from Horwath to Seagren.	Alyce Hughey

11/23/2005	Update or Other Action	Reviewed file & ROD. Called consultant for project update. Have not received certified copy demonstrating that the deed notice has been filed in the recorders office. The ROD required submission of a LTM plan and sampling twice a year to establish contaminant trends. Have only received a single monitoring report dated 28 July 04.	Donald Seagren
11/29/2005	Update or Other Action	reviewed fiel & reports. ROD required a deed notice be attached to the property deed and a twice yearly LTM program be established. The file contains no documentation that either condition of the ROD has been complied with. Sent a letter to the RP requesting project status update and documentation that the conditions in the ROD have been complied with. CCd the consultant, Restoration Science & Engineering.	Donald Seagren
5/5/2006	Update or Other Action	Reviewed the file and sent a second letter requesting copy of filed deed notice and LTM data or work plan required by ROD. Have received no response to intial letter sent on 29 November 05.	Donald Seagren
11/17/2006	Update or Other Action	Sent a revised project status request letter and ROD to the current point of contact after hearing nothing from the previous RP	Donald Seagren
4/12/2007	Exposure Tracking Model Ranking		Donald Seagren
6/11/2008	Update or Other Action	On 6-30-08 Transferred from Paul Horwath to Don Fritz per Paul Horwath.	Alyce Hughey
5/29/2009	Update or Other Action	Site Transferred from Soldotna to Anchorage 6-1-09.	Alyce Hughey
1/24/2011	Update or Other Action	As a follow up on phone conversation with Mr. Paul O'Brien, I contacted KRK Management again to discuss monitoring well decommissioning as an institutional control of the closure letter that is being drafted.	Pam Clemens
1/24/2011	Exposure Tracking Model Ranking	Initial ranking with ETM completed for source area id: 74181 name: heating oil UST	Pam Clemens
1/24/2011	Exposure Tracking Model Ranking	A new updated ranking with ETM has been completed for source area 74181 heating oil UST.	Pam Clemens
2/23/2011	Update or Other Action	Sent site diagram to hotel manager. He will verify if there are remaining groundwater monitoring wells that need to be removed and will submit a workplan for the upcoming field season if necessary.	Pam Clemens
4/13/2011	Cleanup Complete Determination Issued	ADEC has determined that while the soil contamination remaining on site exceeds the most stringent migration to groundwater cleanup levels it does not pose an unacceptable risk to human health or the environment. The remaining contamination is separated vertically from the drinking water well by over 300 feet of permafrost, it is not expected to impact the drinking water well on site. No further remedial action is required, and the site can be closed subject to institutional controls listed in the decision document concerning this site. Refer to the decision document attached to the database for the specific institutional controls.	Pam Clemens
1/31/2012	Update or Other Action	Signed CC-IC Agreement received on this date	Grant Lidren
6/13/2012	Update or Other Action	Staff changed from Grant Lidren to IC Unit.	Kristin Thompson
6/13/2012	Institutional Control Compliance Review	IC review conducted and reminder system set-up for 2016 follow-up with responsible party.	Kristin Thompson
12/14/2015	Institutional Control Compliance Review	IC compliance review conducted. No documentation that the monitoring well decommissioning IC requirement was ever fulfilled. An IC reminder letter was issued to the responsible party on this date. Reminder system set to follow-up in one month.	Kristin Thompson
2/1/2016	Institutional Control Update	Telephone conversation with the general management at this hotel. I sent her a copy of the closure document which includes a diagram of the well placement so that she can check to see if the wells are still present.	Evonne Reese
5/25/2016	Institutional Control Update	Telephone conversation with the general management at this hotel. She and other staff members have looked extensively for the wells shown on the diagram I provided to her a few months ago. They found no indication of wells being present, I am going to assume that the wells were	Evonne Reese

decommissioned in the past at some point. The IC requirement of groundwater monitoring has been removed in the database record. This site is scheduled for a review of the IC compliance in five years time.

Contaminant Information

NAME	LEVEL DESCRIPTION	MEDIA	COMMENTS
Benzene	Between Method 2 Migration to Groundwater and Human Health/Ingestion/Inhalation	Soil	
Benzene	> Table C	Groundwater	
DRO	Between Method 2 Migration to Groundwater and Human Health/Ingestion/Inhalation	Soil	
DRO	> Table C	Groundwater	

Control Type

TYPE	DETAILS
CS Database Notation And Letter To Landowner/RP	

Requirements

DESCRIPTION	DETAILS
When Contaminated Soil is Accessible, Remediation Should Occur	Soil contamination may be located under the former heating oil tank and beneath the building. When the soil becomes accessible, it must be evaluated and contamination addressed in accordance with an ADEC-approved workplan, and/or to the satisfaction of ADEC.
Advance approval required to transport soil or groundwater off-site.	Standard condition.
Other	Every five years.
Groundwater Use Restrictions	Installation of groundwater wells will require approval from ADEC.
Movement or use of contaminated material (including on site) in a manner that results in a violation of the water quality standards is prohibited (18 AAC 70)	Standard condition.

Public Notices • Regulations • Statutes
Press Releases • Contact • Sitemap



State of Alaska Department of Environmental Conservation

410 Willoughby Suite 303
P.O. Box 1111800

APPENDIX F
Agency Outreach and
Correspondence

Archived: Tuesday, May 22, 2018 2:16:26 PM

From: [Emily Creely](#)

Sent: Tuesday, May 15, 2018 10:18:00 AM

To: douglass_cooper@fws.gov

Cc: Robert.Chambers@ak.usda.gov; Chase Nelson

Subject: Bethel Piped Water and Sewer System - Agency Scoping Solicitation for Comments and Information

Sensitivity: Normal

Attachments:

[Attachments.pdf](#) 

The City of Bethel (COB) is in the process of performing an environmental review pursuant to the National Environmental Policy Act for the United States Department of Agriculture (USDA), Rural Development in order that it may assess the environmental impacts of a piped water and sewer system in Bethel, Alaska.

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We would appreciate a response within 30 days. If you need any further information or wish to discuss our project, please contact me at 907-865-1216 or ecreely@dowl.com

Sincerely,



[Emily Creely](#)

DOWL Environmental Specialist

4041 B Street Anchorage, AK. 99503

Emily Creely, PWS
Environmental Specialist

DOWL

Archived: Tuesday, May 22, 2018 2:15:38 PM

From: [Emily Creely](#)

Sent: Tuesday, May 15, 2018 12:41:00 PM

To: FEMA-R10newsdesk@fema.dhs.gov; bjumper@cityofbethel.net; epa-seattle@epa.gov; michael.solter@alaska.gov; Kristin.Ryan@alaska.gov

Cc: Chase Nelson; Robert.Chambers@ak.usda.gov

Subject: Bethel Piped Water and Sewer System - Agency Scoping Solicitation for Comments and Information

Sensitivity: Normal

Attachments:

[Attachments.pdf](#) 

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Sincerely,



[Emily Creely](#)

DOWL Environmental Specialist
4041 B Street Anchorage, AK. 99503

Archived: Tuesday, May 22, 2018 2:13:38 PM

From: [Emily Creely](#)

Sent: Tuesday, May 15, 2018 12:51:00 PM

To: mike.solter@alaska.gov

Subject: Bethel Piped Water and Sewer System - Agency Scoping Solicitation for Comments and Information

Sensitivity: Normal

Attachments:

[Attachments.pdf](#) 

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Sincerely,



[Emily Creely](#)

DOWL Environmental Specialist

4041 B Street Anchorage, AK. 99503

Emily Creely, PWS

Environmental Specialist

Archived: Tuesday, May 22, 2018 2:16:00 PM

From: [Emily Creely](#)

Sent: Tuesday, May 15, 2018 12:35:00 PM

To: wjim@nativecouncil.org; ahoffman@bncak.com; aguy@calistacorp.com

Cc: Robert.Chambers@ak.usda.gov; Chase Nelson

Subject: Bethel Piped Water and Sewer System - Agency Scoping Solicitation for Comments and Information

Sensitivity: Normal

Attachments:

[Attachments.pdf](#) 

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Sincerely,



[Emily Creely](#)

DOWL Environmental Specialist

4041 B Street Anchorage, AK. 99503

Emily Creely, PWS

Environmental Specialist

Archived: Tuesday, May 22, 2018 2:14:30 PM

From: [Emily Creely](#)

Sent: Tuesday, May 15, 2018 12:50:00 PM

To: rhoffman@nativecouncil.org

Subject: Bethel Piped Water and Sewer System - Agency Scoping Solicitation for Comments and Information

Sensitivity: Normal

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Sincerely,



Emily Creely

DOWL Environmental Specialist

4041 B Street Anchorage, AK. 99503

Emily Creely, PWS

Environmental Specialist

DOWL

907.562.2000 | office

907.865.1216 | direct

Archived: Tuesday, May 22, 2018 2:15:03 PM

From: [Emily Creely](#)

Sent: Tuesday, May 15, 2018 12:44:00 PM

To: devki.rearden@alaska.gov; donna.lee@alaska.gov; Bill.griffith@alaska.gov

Cc: Chase Nelson; Robert.Chambers@ak.usda.gov

Subject: Bethel Piped Water and Sewer System - Agency Scoping Solicitation for Comments and Information

Sensitivity: Normal

Attachments:

[Attachments.pdf](#) 

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Sincerely,



[Emily Creely](#)

DOWL Environmental Specialist

4041 B Street Anchorage, AK. 99503

Archived: Tuesday, May 22, 2018 2:01:47 PM

From: [Betsy Jumper](#)

Sent: Tuesday, May 22, 2018 8:35:27 AM

To: Emily Creely

Subject: the Avenues Project in Bethel

Sensitivity: Normal

Good morning, after reviewing the scoping email sent on May 15th, nothing really jumps out at me.

Just a quick question, though, is there any estimated start time at this point? And estimated quit date? Also, will there be public notices, etc. Thank you Emily.

[Betsy Jumper, City Planner, City of Bethel Planning Department](#)

907-543-5306

City of Bethel

Planning Dept.

P.O. Box 1388

Bethel, AK. 99559

FA 543-4186

*"It is not drawn on any map;
true places never are"--Herman Melville*

Archived: Thursday, May 31, 2018 4:34:52 PM

From: Rearden, Devki (DOT)

Sent: Thursday, May 17, 2018 5:02:12 PM

To: Emily Creely

Subject: RE: Bethel Piped Water and Sewer System - Agency Scoping Solicitation for Comments and Information

Sensitivity: Normal

mily

I would need to distribute the plan set throughout the Department to provide comments on the alignment. That being said, the alignment shown on the aerial view you provided shows two consecutive crossings on Ridgecrest just south of Sage Street which would not meet our accommodation policy.

Dev i earden

Utility ead

AD T , entral egiion Utilities

Direct

From: mily reely mailto:ecreely_dowl.com

Sent: Thursday, ay ,

To: earden, Dev i D T dev.i.rearden@las.a.gov

Subject: ethel iped ater and Sewer System Agency Scoping Solicitation for omments and Information

hat s ok

o o have an concerns a o t the proect in terms of or tilt relocations

Emily Creely, PWS

Environmental Specialist

DOWL

907.562.2000 | office

907.865.1216 | direct

From: earden, Dev i D T <mailto:dev.i.rearden@las.a.gov>

Sent: Thursday, ay ,

To: mily reely ecreely_dowl.com

Subject: ethel iped ater and Sewer System Agency Scoping Solicitation for omments and Information

mily

Unfortunately, I do not have any e perience or bac ground with nvironmental ngeineering. I issue utility permits is AD T managed and coordinate utility relocations for AD T ighway and Airport projects.

Dev i earden

Utility ead

AD T , entral egiion Utilities

Direct

From: mily reely mailto:ecreely_dowl.com

Sent: Thursday, ay ,

To: earden, Dev i D T dev.i.rearden@las.a.gov

Subject: ethel iped ater and Sewer System Agency Scoping Solicitation for omments and Information

i evki

ight now, st the environmental doc ment.

So if o are aware of an impacts to avoid or an reg lator stip lations sho ld consider, etc lease let me know

Email

Emily Creely, PWS

Environmental Specialist

DOWL

907.562.2000 | office

907.865.1216 | direct

From: earden, Dev i D T <mailto:dev.i.rearden@las.a.gov>

Sent: Thursday, ay ,

To: mily reely ecreely_dowl.com

Subject: Bethel piped water and Sewer System Agency Scoping Solicitation for comments and Information

Emily

Are you soliciting feedback from AD T in regards to the environmental document or a general review of the proposed project

Dev i earden
Utility ead
AD T , entral egiion Utilities
Direct

From: Emily Reely <mailto:emcreely@dowl.com>

Sent: Tuesday, May 1, 2018

To: earden, Dev i D T dev.i.rearden@alaska.gov ee, Donna A D donna.lee@alaska.gov r Griffith, Bill D bill.griffith@alaska.gov

Cc: Chase Nelson cnelson@dowl.com Robert Hambers robert.hambers@usda.gov

Subject: Bethel piped water and Sewer System Agency Scoping Solicitation for comments and Information

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Sincerely,



Emily Creely
DOWL Environmental Specialist

Archived: Tuesday, May 15, 2018 12:30:05 PM

From: Douglass Cooper

Sent: Tuesday, May 15, 2018 11:20:29 AM

To: Emily Creely

Subject: RE: E TERNA Bethel Piped Water and Sewer System - Agency Scoping - Solicitation for Comments and Information

Sensitivity: Normal

i mily,

I recommend starting with our project planning website <https://ecos.fws.gov/ipac>. This site will generate a list of T species, critical habitat, and other sensitive resources in the area. This should satisfy your planning needs for section compliance. Feel free to give me a call if you have any questions.

Than s,
Doug

Douglass M. Cooper
Branch Chief - Ecological Services
Anchorage Fish and Wildlife Field Office, USFWS
4700 BLM Road
Anchorage, Alaska 99507

(907) 271-1467
douglass_cooper@fws.gov

From: Emily Creely [mailto:ecreely@dowl.com]
Sent: Tuesday, May 15, 2018 10:18 AM
To: douglass_cooper@fws.gov
Cc: Robert.Chambers@ak.usda.gov; Chase Nelson
Subject: [EXTERNAL] Bethel Piped Water and Sewer System - Agency Scoping – Solicitation for Comments and Information

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4041 B Street Anchorage, AK. 99503

Emily Creely, PWS
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907.562.2000 | office
907.865.1216 | direct
4041 B Street
Anchorage, Alaska 99503

who we are | what we do
www.dowl.com