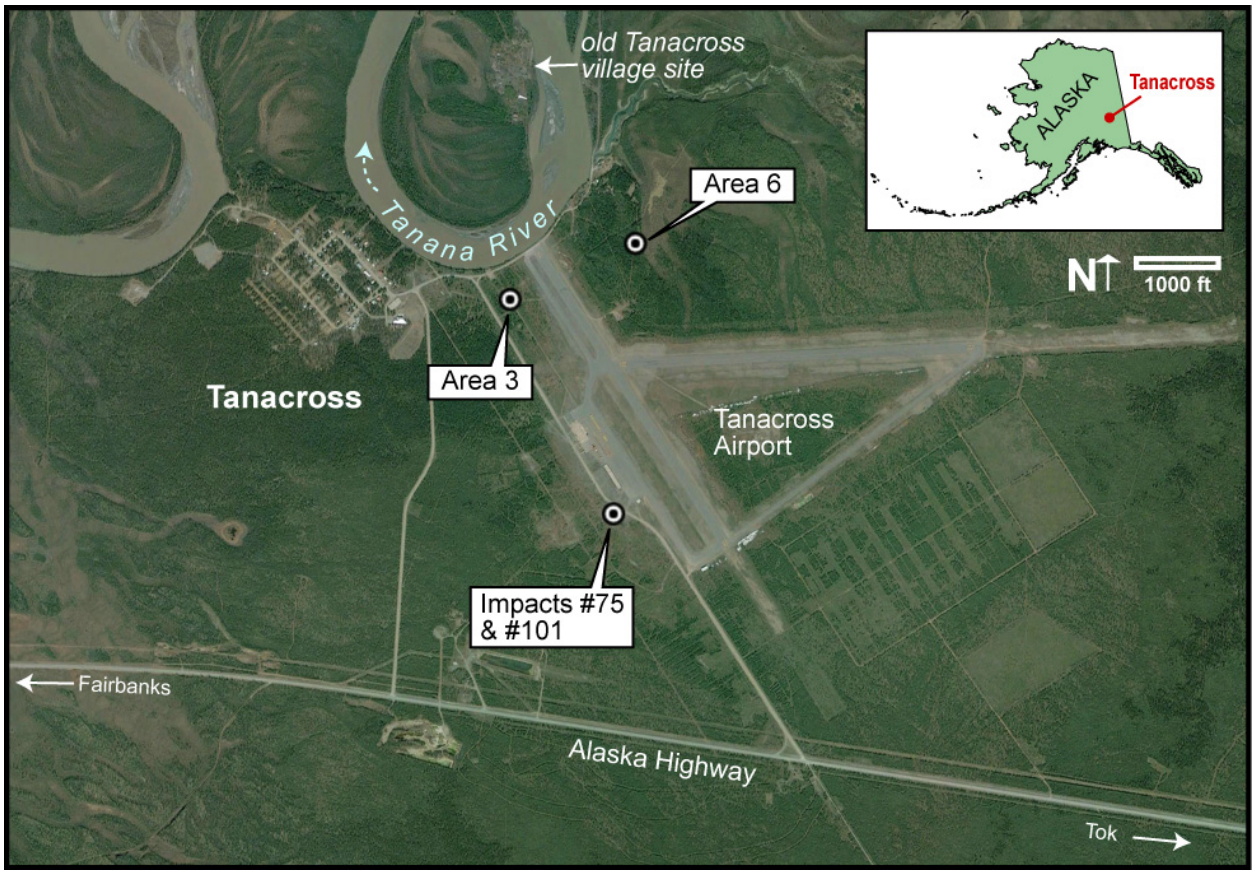
US Army Corps of Engineers
Alaska District

Environmental Assessment and Finding of No Significant Impact

Removal Action
Petroleum-Contaminated Soil

Tanacross Army Airfield & other Military Sites
Tanacross, Alaska

Native American Lands Environmental Mitigation Program



FINAL June 2012

Environmental Assessment

1.0 PURPOSE AND NEED OF REMEDIAL ACTION

1.1 Introduction

The U.S. Army Corps of Engineers (Corps) prepared this environmental assessment (EA) to address under the National Environmental Policy Act (NEPA) the excavation of petroleum-contaminated soils and other ground-disturbing activities at the former military facilities at Tanacross, Alaska. The Native Village of Tanacross (NVT), in partnership with the Corps, would perform the work as part of the Native American Lands Environmental Mitigation Program (NALEMP).

1.2 Site Description

Tanacross is located in Interior Alaska, along the Alaska Highway and Tanana River, roughly 165 miles southwest of Fairbanks, and 12 miles west of Tok (figure 1). The community had a population of 133 in 2011 (ADCRA 2012).

The Tanacross area has been the site of numerous military activities and facilities, for example:

- The Washington-Alaska Military Telegraph System (1900-1908)
- Expansion and operation of Tanacross Airfield, which became a waypoint for aircraft being ferried to the Soviet Union during the World War II "lend-lease" military assistance program
- Several large-scale Cold War-era military maneuvers, such as "Exercise Snow Shoe" (1953), "Exercise Timberline" (1963), and "Exercise Polar Siege" (1964)
- Military logistics projects such as the Alaska Highway (1944), the CANOL fuel pipeline (1944-1947), and the Haines-Fairbanks Pipeline (1953-1972)

A number of environmental investigations and removal actions have been conducted at these sites. An environmental firm performed building demolition and debris removal at and around the military airfield site, and found several areas of soil contamination. Additional sampling was performed at two airfield sites in 2011 to confirm the presence of petroleum contamination and better define its extent (Tutka LLC 2012; TGS LLC 2012).

The proposed action would remove contaminated soil from three sites (figure 1). Area 3 and Impacts #75/#101 are on land managed by the Bureau of Land Management (BLM); work at those sites will require a Land Use Permit from BLM. Area 6 is on private land.

1.3 Need for Action

The NVT wishes to expedite the removal of contaminated soil at several former military sites near Tanacross, as they are in or near areas relied upon for subsistence hunting, fishing, and gathering.

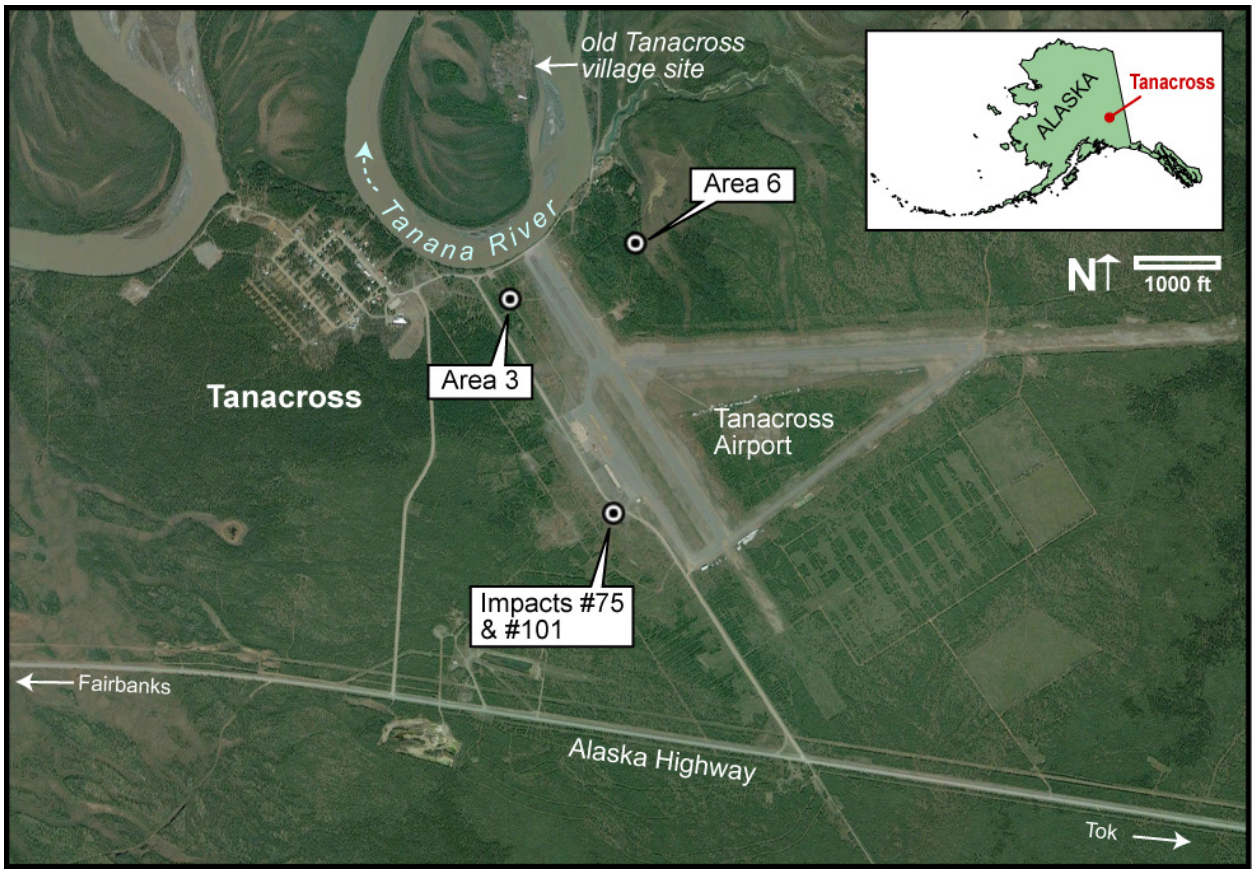


Figure 1. Location and vicinity of Tanacross project sites.

2.0 ALTERNATIVES

2.1 No-Action Alternative

Under the no-action alternative, the contaminated soil would remain in place. This would limit the use of the area by the community and potentially allow the migration of chemical contaminants to nearby wetlands and subsistence areas. The no-action alternative would avoid the short-term disruptions to the local environment that would be caused by the operation of heavy equipment and excavation of soil.

2.2 Removal Action Alternative

The preferred alternative is to continue with the removal of contaminated soil and investigations of potentially contaminated areas. The currently planned environmental restoration activities are detailed in NVT's project work plans (Tutka LLC 2012; TGS LLC 2012). These activities include:

- Excavation of approximately 300 cubic yards of petroleum-contaminated soil from the Alaska Communications System site (Area 3/Impact #97) and the Tanacross Airfield Site (Area 6/ Impact #96)

- Excavation of approximately 1,000 cubic yards of petroleum-contaminated soil from the airfield Aboveground Storage Tank site (Impact #75) and Former Fueling Station site (Impact #101)

- Offsite treatment and disposal of contaminated excavated soil

- Collection of confirmation samples

- Backfilling, grading, and revegetation of the excavations

- Installation of monitoring wells

Site workers would remove contaminated soil using an excavator and use field screening to determine horizontal and vertical extent of the contamination. The excavations would extend no deeper than 2 feet below the water table, which is anticipated to be roughly 10 feet below ground surface. Soil determined to be contaminated would be placed directly into a dump truck for transportation off-site, or temporarily stockpiled on site in accordance with State of Alaska regulations. All contaminated soil would ultimately be transported to a soil remediation facility in Fairbanks. Site workers would backfill the excavations with clean overburden, supplemented with clean fill from an established private/commercial borrow source. A separate revegetation plan has been prepared, and will be submitted to the BLM for approval (TGS, *Tanacross Airfield Site Revegetation Plan*, 2012). Monitoring wells would be installed at locations to be determined in the field and the contractor will coordinate with the BLM and USACE on well locations prior to installation. The wells will be installed to assess whether a plume of contaminated groundwater exists at these sites (Tutka LLC 2012; TGS LLC 2012).

3.0 AFFECTED ENVIRONMENT

3.1 Community

The community is a traditional Athabascan village on the south bank of the Tanana River. Most families rely on subsistence activities; moose, caribou, porcupine, rabbit, ptarmigan, waterfowl, and whitefish are harvested from the lands and waters surrounding the village. Some residents find summer employment as firefighters for the Bureau of Land Management or work at the clinic, school, and washeteria. Water from a community well is treated, stored in a 25,000-gallon tank, and piped to most homes. A piped sewage and septic system serve approximately half of the community. Some residents have individual and septic tanks. Electricity is provided out of Tok (ADCRA 2012).

3.2 Current Land Use

The project sites are in areas close to the airport that have been impacted by previous use by the military and others. The land around the airport is crossed by a network of roads and trails, and appears to be vegetated more sparsely than the surrounding countryside. These areas may be used mostly as access corridors between the village, airport, outlying homes, subsistence areas, and other communities.
With the addition to NVT and BLM using the area, BLM currently has provided three

authorizations for use within the Tanacross Airfield area. The Fairbanks Racing Club (FF095368) and the Alaska Sports Car Club (FF095149) both have special Recreation Use Permits to conduct races in the summer. The State of Alaska, Division of Forestry (DOF), has a Right-of-Way Grant (FF93952) to use portions of the area for fire operations.

3.3 Climate

The Tanacross area experiences the very cold winters and warm summers typical of Interior Alaska. In the winter, cold air can settle in the river valley and trap ice fog and smoke. The average January low temperature is -22°F, while the average July high temperature is 65°F (ADCRA 2012).

3.4 Topography, Soils, and Hydrology

The soils in the Tanacross area are primarily alluvial deposits of well-rounded gravel with sand and small amounts of silt, overlain with a thin layer of silt and fine sand. The topography in the airport area is rather flat, sloping slightly toward the Tanana River. Depth to groundwater ranges from 6 to 13 feet below ground surface, becoming shallower closer to the river. Near the river, the depth to groundwater also fluctuates seasonally, being higher in the summer and dropping during the winter. Groundwater flow at Tanacross is generally toward the northwest. This unconfined aquifer is the principle water source for area residents (TGS LLC 2012).

3.5 Biological Resources

Tanacross is within the upper Tanana River Valley and hosts habitats and wildlife typical of Interior Alaska. Upland vegetation is boreal forest consisting primarily of black spruce in wet and poorly drained areas and white spruce on drier sites. Quaking aspen commonly occurs on well drained, south facing slopes, and along with paper birch, often occurs in recently burned or disturbed areas. Balsam poplar is common along water courses. As elevation increases, dense spruce gives way to open spruce woodlands mixed with tall shrubs, then dwarf-shrub communities, and finally alpine tundra. Shrubs are most common along streams and water bodies, within recently burned areas, and along gullies that drain subalpine tundra. The shrub component is primarily willow, alder, and dwarf birch (USFWS 2011).

Large mammals include herbivores such as moose and caribou, and carnivores like wolves, coyotes, black bears, brown bears, and lynx. Porcupines, beavers, muskrats, hares, and voles are also common (USFWS 2011).

The upper Tanana River Valley is on a major bird migration corridor and has a high diversity of species compared with other Interior Alaska regions. Ducks, geese, swans, and other water birds make heavy use of the rivers, lakes, and wetlands. Bald and golden eagles, ospreys, hawks, and owls are known to breed in the area. Ground birds include spruce grouse, ruffed grouse, sharp-tailed grouse, and willow ptarmigan. The most common migratory songbirds are slate-colored junco, Swainson's thrush, Wilson's warbler, ruby-crowned kinglet, yellow-rumped warbler, and orange-crowned warbler. Year-round residents include ravens, gray jays, black-billed magpies, black-capped chickadees, boreal chickadees, and redpolls (USFWS 2011).

Arctic grayling, burbot, lake trout, northern pike, and humpback whitefish are present in area

lakes and streams. There are no significant salmon runs in the upper Tanana River drainage, but small runs of chum salmon and an occasional Chinook and coho have been recorded (USFWS 2011).

3.6 Wetlands

The proposed project sites are not known to have been evaluated for wetlands. On a larger scale, however, the Tanana River valley is included in the U.S. Fish & Wildlife Service (USFWS) National Wetlands Inventory (USFWS 2012b). Figure 2 incorporates a screen-shot from the USFWS on-line wetlands mapping website, with project features added. According to the USFWS information, the airfield occupies a broad area of uplands bordering a corridor of forested wetland, bogs, and marshes that largely follow the path of the Tanana River. Area 6 appears to be on the edge of a wetland area, but not within it; aerial photographs suggest that Area 6 is on a vehicle trail that skirts but avoids the nearby wetland.

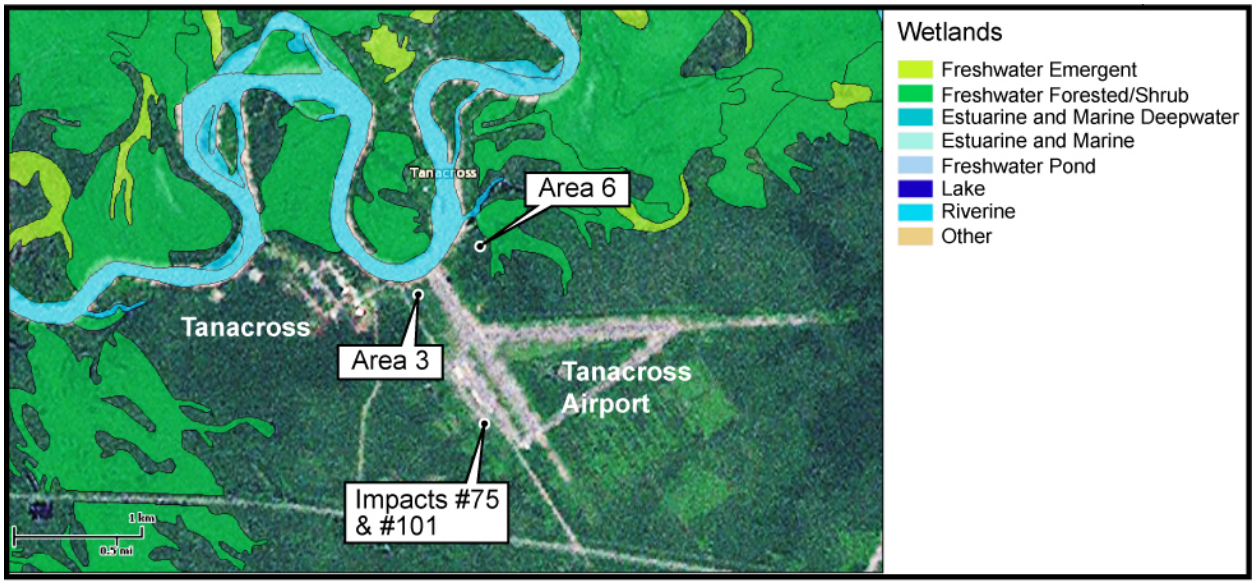


Figure 2. Annotated National Wetlands Inventory map of the Tanacross area.

3.7 Threatened and Endangered Species

No species listed as endangered or threatened under the Endangered Species Act are known to exist in the vicinity of Tanacross. This area is within the historical range of the wood bison (listed as "endangered"), but no wild populations of this species currently live in Alaska (USFWS 2012).

3.8 Essential Fish Habitat and Anadromous Streams

No marine essential fish habitat (EFH) as designated by the National Marine Fisheries Service (NMFS) exists near Tanacross. The only anadromous stream in the vicinity listed in the Alaska Department of Fish & Game's (ADFG) Anadromous Waters Catalog (AWC) is the Tanana River. The river is assigned the AWC number 334-40-11000-2490, and is reported to have

chum, coho, and king salmon "present" at Tanana (ADFG 2012).

3.9 Cultural and Historical Resources

Most historical properties in the Tanacross area are associated with the old Tanacross village site on the north side of the river (figure 1) and the trails leading north from that site. The Alaska Heritage Resources Survey (AHRS) lists three historical properties south of the river but north of the Alaska Highway near the Tanacross airport where the project would take place. Tanacross Airfield itself is a historic property, assigned the AHRS number TNX-00133. The AHRS describes the site as originally a dirt strip cleared in 1926 that the Civil Aeronautical Administration expanded into an airfield facility in the 1930s. The military began using the airfield as an emergency landing field in 1941, and by 1943, had built a camp and operations center housing about 50 people. The airfield included two mile-long paved runways, a large hanger, aircraft refueling facilities, and support buildings. Most of these structures were demolished soon after World War II. Only the paved runways remain from the original construction, and this property was determined in 2003 to be ineligible for the National Register of Historic Places (NRHP; OHA 2012).

The Denny Family Cemetery (TNX-00036) is on a Native allotment north of the airport's east-west runway. The coordinates provided in AHRS appear to place it about 600 feet to the north of project Area 6. The cemetery has been used from the 1940s to the present day and contains about a dozen graves, at least five of them marked with grave-fences. The cemetery was determined to be ineligible for the NRHP in 1992.

Portions of a historic telegraph/telephone line run parallel to the Alaska Highway. A segment near Tanacross (TNX-00145) is considered eligible for the NRHP for its association with World War II (OHA 2012).

3.10 Air Quality

No information on local air quality is available. The low density of emission sources in the Tanacross area suggest good air quality, although the community's location in the river valley may make it prone to high particulate concentrations from wood smoke, particularly in winter.

3.11 Noise

The noise levels at the site are generally low and considered comparable to similar rural areas. The major source of noise would presumably be from motor vehicles such as watercraft, aircraft, and all-terrain vehicles.

4.0 ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

4.1 No-Action Alternative

The no-action alternative would avoid the short-term disruptions to the local environment that would be caused by the operation of heavy equipment and excavation of soil. However, the contaminated soil would remain in place, which would limit the use of the area by the

community, and potentially allow the migration of chemical contaminants to nearby wetlands and subsistence areas.

4.2 Preferred Alternative

Under the preferred alternative, contaminated soils would be removed from the site to the extent practical; the potential environmental consequences are described below.

4.2.1 Current Land Use

The planned environmental cleanup activities at Tanacross may cause some brief restrictions on public access to portions of the general area. The project sites appear to be on a network of all-terrain vehicle trails, and local users may need to find alternate routes to their destinations. Active work sites may need to be closed off for public safety, and heavier-than-usual vehicle traffic on the local roads may discourage some residents from accessing the area. NVT and the Contractor will coordinate with the land owners and entities holding permits within the area to ensure there is no disruption during critical times for users in the area.

4.2.2 Topography, Soils, and Hydrology

The small areas of excavation would not significantly alter the topography or patterns of overland water flow in the area.

4.2.3 Biological Resources

The planned activities would be highly localized in their impacts and affect areas already heavily altered by the former military facilities, past cleanup efforts, and current day usage. A small amount of brush may need to be cleared to access specific features. The activities would have little effect on local wildlife and no long-term negative impact on their habitat. The project site is surrounded by large areas of similar, higher-quality habitat, and any wildlife displaced from the project area by noise and activity should be able to quickly resume their natural behavior.

Nesting birds are likely to be the most vulnerable animal species at the site. The destruction of active nests, eggs, or nestlings is a violation of the Migratory Bird Treaty Act (MBTA). The U.S. Fish and Wildlife Service advises that the period 1 May through 15 July should be considered the nesting window for forest- or shrub-nesting birds in Interior Alaska (USFWS 2007). The project activities may overlap this nesting window. One means of avoiding a "taking" of nesting birds under the MBTA would be to perform the necessary brush and tree removal before the start of the nesting window.

The Corps determines that the planned activities would have no adverse effect on any species listed under the Endangered Species Act or their critical habitat. The project would not require crossing or altering any anadromous streams, and so would not have any effect on essential fish habitat.

The currently planned activities do not involve the discharge of material into wetlands and should have no adverse effects on any wetlands or water bodies.

4.2.4 Cultural Resources

The Corps determines that the planned activities would have no adverse effect on cultural or historical resources. The known historical properties described in Section 3.8 are well outside the areas of potential effect (APEs) of the planned activities, and only the telegraph line is eligible for the NRHP. The structures associated with the petroleum releases have been previously removed. The excavation work would take place at the locations of former structures, so subsurface soils likely were already disturbed by previous construction. The Corps will seek concurrence with its determination of "no adverse effect" from the State Historical Preservation Officer (SHPO).

4.2.5 Air Quality

Air quality may be affected during the project period due to the use of heavy equipment, vehicles, and generators. The Corps believes any poor air quality conditions caused by the project would be transient and highly localized and would dissipate entirely at the end of the project. Dust control (i.e. watering) as a Best Management Practice (BMP) may also be utilized during hauling operations to control dust if needed.

4.2.6 Noise

The planned activities at the site and the movement of trucks and equipment into and out of the project along local roads would increase the levels of noise in the local area during several weeks of the working season. The remedial activities would be timed to minimize the level of interference with the lives of the local residents.

4.2.7 Effects on Coastal Zone Management

The project site is not within a coastal management zone.

4.2.8 Effects on Environmental Justice

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires Federal agencies to identify and address any disproportionately high and adverse human health effects of its programs and activities on minority and low-income populations.

The express purpose of the proposed project is to reduce risks to human health and welfare in the region by removing contaminants from the environment. The Corps does not anticipate adverse impacts from this project to the local human population.

4.2.9 Cumulative Effects

Federal law (40 CFR 651.16) requires that NEPA documents assess cumulative effects, which are the impact on the environment resulting from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.

The proposed project would have the ultimate net effect of removing a large mass of chemical

contamination from the environment. The immediate incremental impacts of air pollutants and noise from construction machinery would be of short duration and would not contribute to long-term cumulative effects. The project may indirectly contribute to long-term changes in land use and environmental quality by encouraging use of the restored land.

4.2.10 Mitigation

After backfilling, the excavations would be contoured and revegetated to limit future erosion. The area of soil exposed at each excavation site would be small, but the site workers would employ standard best-management practices (BMPs) as needed to control erosion and fugitive sediment and dust. This may include covering exposed soil in stockpiles or the beds of dump trucks, or preventing sediment from being transported into wetlands or water bodies by using silt fencing or straw rolls. Emergency spill response procedures and materials (such as sorbent pads and mats) would be provided on site. All fuels and fluids used in machinery and excavation equipment would be stored at least 50 feet from streams or ponds. Transfer of Petroleum, Oils, and Lubricants (POLs) to equipment will be completed in a secure manner to minimize the possibility of contamination to the surrounding area. At a minimum, POL-type absorbent pads will be placed under transfer locations to catch overflow so there is no impact to the environment due to a spill. Any equipment identified as having a leak will immediately be taken out of operation and a drip pan will be used to contain the spill until it is repaired.

All spills will be contained and cleaned up in accordance with Alaska Department of Environmental Conservation (ADEC) guidance as soon as the release has been identified, unless health and safety of personnel is at risk. ADEC discharge notifications and reporting requirements are outlined in AS 46.03.755 and 18 AAC 75 Article 3. The release of POLs to any waterbody must be immediately reported to ADEC as soon as the person has knowledge of the release. The responsible party will contact the BLM Authorized Officer within 48 hours of a spill on BLM managed land.

4.2.11 Vegetation and Non-Native Invasive Plant Species

There will be very little impact to vegetation and the introduction of non-native invasive plant species. Clean overburden from the area will be used to the extent practical and a privately owned commercial source within the area will be used for any additional back fill needs. On BLM managed lands, an approved site-specific plan designed to prevent the introduction of non-native invasive plants, and achieve desired conditions will be submitted prior to vegetation activities (TGS, *Tanacross Airfield Site Revegetation Plan*, 2012). .

5.0 Permits and Authorizations

This continuing project would require few resource permits or authorizations. The Corps will seek concurrence from the State Historical Preservation Officer that the soil excavation and monitoring well installation would not cause adverse effects to historical or cultural properties. The Corps does not expect the project to require discharge of materials into wetlands. If an excavation did extend into a wetland area, the backfilling of that excavation would be authorized by Nationwide Permit No. 38, “Cleanup of Hazardous and Toxic Waste.” NVT is also currently working with the BLM to obtain permit authorization on BLM managed lands within the area.

6.0 CONCLUSION

The continued environmental cleanup efforts at Tanacross, as discussed in this document, would have some minor, largely controllable short-term impacts, but in the long term would help improve the overall quality of the human environment. This assessment supports the conclusion that the proposed project does not constitute a major Federal action significantly affecting the quality of the human environment; therefore, a finding of no significant impact will be prepared.

7.0 PREPARERS OF THIS DOCUMENT

This environmental assessment was prepared by Chris Floyd and Diane Walters of the Environmental Resources Section, Alaska District Corps of Engineers. The Corps of Engineers Project Manager is Andrea Elconin.

8.0 REFERENCES

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