SPAR Programs
- Contaminated Sites
- Industry Preparedness
- Prevention and Emergency Response
- Response Fund Administration

Information
- Report a Spill
- About Us
- Recent Spill Responses
- Approvals and Permits
- Guidance and Forms

Northeast Cape Formerly Used Defense Site
Gambell Formerly Used Defense Site

Check information from database on this site.

Status: Active

Database Name:
St Law NEC Facility Wide
St Law Gambell Facility Wide
(Individual sites also have database entries.)

Location:
St. Lawrence Island

Latitude and Longitude:
See database entry

This site has a Restoration Advisory Board, which involves the community.

DEC Contaminated Sites contact: Curtis Dunkin, Project Manager - 907-269-3053 (Anchorage)
U.S. Army Corps of Engineers contact: Valerie Palmer, Project Manager - 907-753-2578 (Joint Base Elmendorf-Richardson in Anchorage)

Contacts updated: Sept. 3, 2013

PDF Version

Summary updated: Oct. 2, 2013

Click on photos or maps for larger versions.

Description

Aerial view of the Northeast Cape Headquarters facility looking toward the east. All of these buildings were removed and disposed off-island in 2003.

Two Formerly Used Defense Sites (FUDS) are located on St. Lawrence Island. The U.S. military stationed forces in and around Gambell during and after World War II. The Air Force operated an Aircraft Control and Warning Station in Gambell from 1948 to 1956. The site was abandoned after a similar facility was constructed at Northeast Cape on the island. Located about 50 miles from Savoonga, the nearest village, the Northeast Cape site included a White Alice Communication Site and operated from 1957 to 1972. The landowners are the Sivuqaq Native Corporation (for Gambell) and the Savoonga Native Corporation. The U.S. Army Corps of Engineers is responsible for cleanup at the sites through its Formerly Used Defense Sites program.

The cleanup of the Formerly Used Defense Sites at Gambell was completed in 2007 and 2008, when all of the associated contaminated sites were determined to be “Cleanup Complete.” There is now no active Restoration Advisory Board for the Gambell sites.

The cleanup of the Formerly Used Defense Sites at Northeast Cape is ongoing, and the Restoration Advisory Board for those sites is active.

Northeast Cape is subdivided into 29 separate areas in addition to the White Alice site uphill about a half-mile from the Headquarters Area. Large areas at Northeast Cape are contaminated by petroleum in the soil and groundwater and PCBs in soil. An estimated 180,000-gallon diesel fuel spill in 1969 impacted a nearby river drainage. Isolated detections of generally low concentrations of volatile organic compounds, pesticides and metals have been noted. Sediment in the nearby river drainage basin is also impacted with petroleum, metals and PCBs. Fish (Dolly Varden) sampled from the drainage were found to contain PCBs at concentrations slightly above the ingestion levels recommended by the Environmental Protection

Agency. All the buildings, above ground structures and debris have been removed, including those at the White Alice site. Nearby areas are used occasionally for subsistence food gathering.

The Gambell sites were subdivided into 38 separate areas. The majority of contamination was petroleum-impacted soil. There were also areas of low concentrations of dioxin (below cleanup standards) and reported unexploded ordnance (UXO) in Troutman Lake. Construction debris, military equipment and small quantities of hazardous substances were removed through the Native American Lands Environmental Mitigation Program (NALEMP). Additional areas with buried material were reported to exist around the village. An investigation of the groundwater near the village water supply (Site 5) detected a low-level concentration of diesel range organics (DRO) in one monitoring well in 1998. Subsequent sampling did not find DRO in the well, and testing of the water supply well showed no detectable contamination.

Public Health and Environmental Concerns

The community has expressed concern over cancer rates and a possible link to former military sites at Northeast Cape. There has also been concern over possible impacts to subsistence foods, such as reindeer and fish, from the area. At Northeast Cape there is limited human presence. A nearby fish camp has intermittent summer residents. In August 1999, representatives from the Agency for Toxic Substance and Disease Registry – part of the U.S. Department of Health and Human Services – visited both communities and began a health consultation. Their draft report, released in September 2000, showed a quite low risk from consumption of reindeer. It noted concerns, however, about fish consumed from the Suqitughneq Creek, which drains the site, and nearby drainages. The agency suggested residents avoid eating fish from the drainage until a more comprehensive effort was completed, however resident fish are not currently used from the Suqitughnrq River as they are too small for subsistence use.

The Army Corps of Engineers began a risk assessment in 2001 to gather the missing data and discover any risks involved. Assessing risk involves considering many details such as the type of food consumed, how often it's consumed, the contaminant levels, and the health sensitivities of the people who consume the food. DEC and the Corps worked extensively with the community during the three years it took to complete the risk assessment, learning that island residents don't eat fish from Suqitughneq Creek. They do, however, fish along another creek in the drainage. Also, the species of fish that people consume are migratory species. This means that fish don't stay in the stream their whole lifetime and could pick up contaminants from other sources than that drainage.

The risk assessment also looked at the risk if future use of the area increased, and these factors will be considered as decisions are made about sites where cleanup is not yet complete.

At Gambell, the majority of contaminants were petroleum in soils. There were also low levels of dioxins. Buried debris, which occasionally surfaced from erosion or new construction, had been a safety concern in the community. Four-wheeler accidents had reportedly occurred due to exposed surface debris. Tests for unexploded ordnance performed in 2000 found scattered individual small arms ammunition, but none at suspected sites in village or in Troutman Lake. Groundwater tests surrounding the Gambell public water supply well showed that no contamination from military sites was reaching the well. The water system is tested frequently and meets drinking water standards.

Current Status

DEC continues to work with the community and the Army Corps of Engineers on the characterization and cleanup of the Northeast Cape. As individual sites are addressed, they are cleaned to meet current environmental standards. The community has had concerns throughout cleanup and has been active during the process. The Restoration Advisory Board received federal Technical Assistance for Public Participation (TAPP) grants between in 2001 until 2008 to hire someone to help them understand the technical aspects of the process and to help review the many associated documents.

Northeast Cape
As of the end of fiscal year 2012 (July 1, 2013), more than $110 million has been spent on contamination cleanup and remediation work at the Northeast Cape FUDS site, including the demolition and offsite disposal of structures and debris. Beyond that, more than $10 million – the Army Corps of Engineers' estimate to complete the cleanup and remediation work – has been programmed for ongoing and future cleanup work during fiscal years 2013 and 2014.

Gambell
The Army Corps of Engineers began removal of contamination and debris in 1999. The agency removed some areas of soil contaminated with low levels of dioxin. The community of Gambell was most concerned with the remaining debris. The Corps did not consider buried debris eligible for funding under its Formerly Used Defense Sites program. The Native Village of Gambell subsequently received several grants from the Native American Lands Environmental Mitigation Program (NALEMP) to fund additional debris cleanup at Gambell between 2003 and 2008. The Gambell NALEMP project was the largest in the nation, with 290,000 pounds of buried debris removed in 2006.

The investigation and cleanup at Gambell cost $7 million. As the investigation and remedial work

progressed, new areas of contamination were reported or discovered, lengthening the process. The Corps issued a Record of Decision for Gambell; DEC signed it in 2007. That allowed DEC to approve closure of all 38 Formerly Used Defense Sites at Gambell. For all the sites that had hazardous and toxic waste in containers, those containers were taken to hazardous waste treatment facilities off the island.

More Information

Site Summary, October 2008 (pdf, 133K)

The Northeast Cape White Alice Communications Facility looking east. This site is about a half-mile uphill from the Headquarters Area shown at the top of the page. All the structures including the antennae were removed in 2003 and disposed off-island.

Department of Environmental Conservation
Division of Spill Prevention and Response
410 Willoughby Ave., Ste. 302
P.O. Box 111800
Juneau, AK 99811-1800

State of Alaska © 2011 Webmaster