

CIAP WEAR Trip Report
Shishmaref (population 598)
September 11, 2012 and September 11, 2014



Alaska Department Environmental Conservation (ADEC) Solid Waste Program (Trisha Bower, Sandra Woods, and Rebecca Colvin) and Kawerak, Inc. (Anahma Shannon) conducted a Coastal Impact Assistance Program (CIAP), Waste Erosion Assessment and Review (WEAR) site visit for the Village of Shishmaref, September 11th, 2012. Sharon Nayopuk, IGAP Coordinator, Richard Kuzuguk, IGAP Assistant and Stanley Tocktoo, Mayor helped coordinate our visit. An additional inspection was conducted on September 11th, 2014. The following narrative is a brief description of our findings during the inspections.

WEAR Sites

- **Tannery, 66.258215/-166.059520 (Active)** – The tannery is a seasonal business that is operated and managed locally. The tannery is operational when there are sufficient hides and other materials to process. The building was constructed around 2000 and is locked when not in operation. The tannery houses a variety of chemicals that are used in the industry in addition to various tools and machinery. The tannery is located approximately 440 feet from the Chukchi Sea. The new riprap wall stops approximately 400 feet short of protecting this structure.



- **Landfill, 66.243132/-166.114655 (Active)** — This 2 acre, permitted landfill is a fenced area fill design located 1.5 miles southwest of the community. It is operated on an as needed basis by the City of Shishmaref. There is waste separation and diversion by the IGAP Program, who collects and recycles/backhauls fluorescent lights, lead acid batteries, household batteries, some scrap metal, and aluminum cans. There is not a collection program, so the community self-hauls to the landfill. It has accepted special waste and construction and demolition waste and does not receive honeybucket waste. The site is partially fenced with the existing fencing in poor condition. There are two Tok burn units in the landfill that are not used. Waste is open burned by residents. Waste has been consolidated into large, unstable mounds. A metals/salvage area is located outside the landfill. It was reported that storm surges impact the landfill as there are no erosion control measures in place at this location. The Chukchi Sea is located approximately 517 feet north from the landfill.

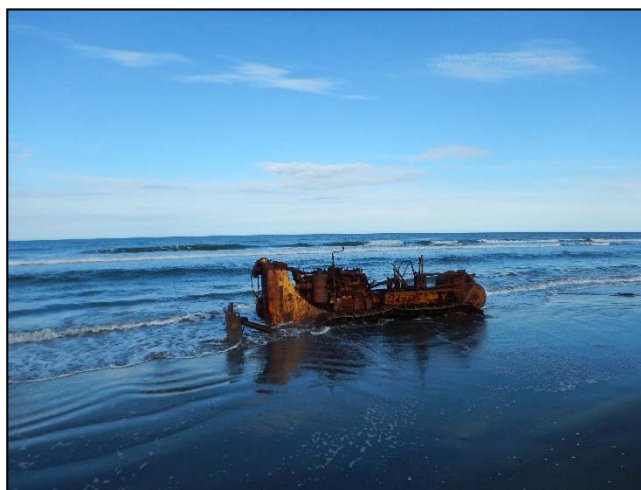
2012 Photos



2014 Photos



- **Closed Landfill, 66.244553/-166.114609 (Closed)** – This landfill was covered and closed in the 1990s when the new landfill was opened. This site was operated as a trench and fill in the sand. It contains primarily municipal waste. The current metals/salvage area is located on top of this site. This landfill is eroding when the south wind causes high wave action and during the increasingly frequent fall storms. These pictures were taken in 2014, the landfill was not eroding in 2012. It is located at the high tide line of the Chukchi Sea and is not protected by the riprap wall installed by the Army Corp of Engineers located more than 1 mile away in the community.



- **IRA Tank Farm, 66.25509/-166.073739 (Active)** – This tank farm is located on the western end of the community. Per imagery review there has been a tank farm in this location since the 1970s. The current tank farm is fully fenced within a bermed, lined secondary containment area. This was the largest tank farm in Shishmaref and was being actively maintained during the 2012 inspection. The tank farm includes fifteen vertical tanks and two horizontal tanks. The two vertical tanks furthest to the east are owned by the school. It has an approximate capacity of 140,000 gallons of fuel. There is another set of white vertical tanks that are not affiliated with this tank farm adjacent to the fenced area. The tank farm is approximately 420 feet from the Chukchi Sea. A riprap wall was installed by the Army Corps of Engineers in 2013, which helps provide erosion control for this site.



- **AVEC Tank Farm, 66.254926/-166.072631 (Active)** – This tank farm is located in between the school and the sewage treatment lagoons on the west end of the village. It is owned and operated by AVEC for power generation in the community. There are 16 white tanks in one cell and 4 grey tanks in an adjacent cell. This site has an approximate capacity of 176,000 gallons. The tanks are not within a fenced area and a secondary containment system was not visible. There has been a tank farm in this location since the 1970s per imagery review. The tank farm is approximately 570 feet from the Chukchi Sea. A riprap wall was installed by the Army Corps of Engineers in 2013, which helps provide erosion control for this site.



- **City Tank Farm, 66.257496/-166.060191 (Active)** – This tank farm is located next to the community water tank on the east end of town. It was constructed around 2000 and is owned by the City of Shishmaref. It contains 3 – 27,000 gallon white, horizontal tanks and 2 small approximate 5,000 gallon tanks. All tanks are within a fenced, bermed secondary containment area. There are 3 vertical rusted tanks outside of the fenced area. This is the first tank farm constructed in this location per imagery review. The tank farm is approximately 650 feet from the Chukchi Sea. Its location does not fall within the riprap wall's protection, which was constructed by the Army Corps of Engineers in 2012.



- **Lone Tank, 66.254953/-166.071058 (Active)** – This tank is located on the southwestern side of the community and is adjacent to a water storage tank. It is resting on a wooden pallet within a depression in the ground that is lined. The area contained standing water. The tank was hooked up to a hose line, indicating it was in use. The owner and contents of the tank are unknown. It has been in this location since the 1990s per imagery review. It is 600 feet from the Chukchi Sea. A riprap wall was installed by the Army Corps of Engineers in 2013, which helps provide erosion control for this site.

