## CIAP WEAR Trip Report Kivalina (population 402) August 16, 2013 & July 10, 2014



Alaska Department of Environmental Conservation (ADEC) Solid Waste Program (Sandra Woods and Trisha Bowers) conducted a Coastal Impact Assistance Program (CIAP), Waste Erosion Assessment and Review (WEAR) site visit for Kivalina August 16<sup>th</sup> 2013 and a follow-up visit on July 10<sup>th</sup>, 2014. The following narrative is a brief description of our findings during the 2013 and 2014 inspections.

## **WEAR Sites**

Landfill, 67.743397/-164.580506 (Active) – This unpermitted landfill covers approximately 6.5 acres and is located on a barrier island between the Chukchi Sea and Kivalina Lagoon. The community has no landfill operator and self-haul their solid waste and honey bucket waste to this location with 4-wheelers. Honeybucket waste is comingled with solid waste. Site access is unrestricted with a small perimeter fence on one side only. The landfill has a wide open entrance where garbage is dumped along the length of both sides. Lack of fencing and cover materials allow prevailing winds to blow debris into the water bodies on each side of the landfill. The landfill has a burn box on site, located in the middle of the disposal area. It was full of ash and unburned waste. The burn box was inaccessible due to its location. The site is approximately 60 feet from the high tide line.









Original AVEC Tank Farm, 67.726490/-164.538677 (Active) —This tank farm area is located centrally in town near the drinking water storage tank. The tanks are in a lined, metal walled containment area. The tanks were originally placed here in the 1970's and each have a capacity of roughly 8,000 gallons of diesel. In Fall 2007, due to heavy erosion of the beach front property, AVEC moved all but three of the AVEC tanks from the tank farm to the southern part of the island. This location is now protected by an engineered rock revetment located approximately 15 feet away. The three remaining tanks are in active use. This tank farm is located 80 feet from the Chukchi Sea.













Pepartment of Commerce, Community, and Economic Development website, the community of Kivalina relocated the AVEC tank farm in 2007 to the southern tip of Kivalina and placed the tanks in between the Native Store Tank Farm and the Kivalina School Tank Farm. There are 11 vertical fuel tanks in the new location and three remaining tanks were left at the original site. The tanks are resting on wooden pallets and are in an unlined fenced area with sandbags stacked around the bermed area. This tank farm has an estimated capacity of 88,000 gallons. This tank farm is 130 feet on the Chukchi Sea side and 200 feet from the Kivalina Lagoon side. There is an engineered rock revetment installed on the Chukchi Sea side of the tank farm for erosion control.









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School Tank Farm, 67.725187/-164.533214 (Active) – This site is owned and operated by the Northwest Arctic Borough School District. It is located adjacent to the Relocated AVEC Tank Farm on the northwest side and is believed to have been in this location since the 1970s. It contains five horizontal fuel tanks placed on wooden cribbing and contained within a 10' fence. The tanks have a total capacity of 49,600 gallons. The site is located on the southeastern tip of the barrier island and is 160 feet from the Chukchi Sea and 230 feet from Kivalina Lagoon. There is an engineered rock revetment installed on the Chukchi Sea side of







Lone Tank, 67.725125/-164.533489 (Abandoned) – This vertical fuel tank is located just outside of the McQueen School Tank Farm and is placed on a wooden platform in an unfenced area. There are no pipes connected to it, and it appears to be old, rusted and not in use. There were no signs near the tank that indicated who owned it. No one in the community that we talked to knew who owned the tank either. It is located 150 feet from the Chukchi Sea, where an engineered rock revetment is installed for erosion control.



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Native Store Tank Farm, 67.724910/-164.532599 (Active) – This tank farm is owned and operated by ANICA, Inc. for retail fuel sales for the community. There are a total of seven tanks in Native Store Tank Farm: two 20,000 gallon gasoline horizontal tanks, four 20,000 gallon diesel tanks, and one horizontal 4,400 gallon gasoline tank. The site has a total capacity of 124,400 gallons of fuel. Each tank is located on metal skids and placed on a 2' X 12' wooden platform contained with a 10' fence. It is unknown whether the containment area is lined. This tank farm has been in this location since around the 1980s, and is 120 feet from the Chukchi Sea and 150 feet from Kivalina Lagoon. It is located on the far southeastern tip of the barrier island and is protected by an engineered rock revetment on three sides.













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