

Community Coastal Impact Assistance Program

Yukon-Kuskokwim Clean Coast Initiative - Solid Waste Assessment, Best Practices Training, and Clean Up

Award Amount

\$1,871,066

Grantee

Yukon-Kuskokwim Coastal Association

Grantee Contact

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Location

The YKCA encompasses the greater Yukon-Kuskokwim Delta region including Nunivak Island, and includes 8,933 miles of coast. Forty communities are located in the YKCA. Almost all villages in the YKCA are located within the Yukon Delta National Wildlife Refuge. Villages in the following areas will be assessed if they apply:

- Yukon River villages from
 - Kaltag 64° 19' 6.6" N, 158° 43' 29.9" W to
 - Fort Yukon 66° 33' 25.2" N, 145° 15' .9"
- Nelson Island communities of
 - Tununak 60° 34' 5.1" N, 165° 14' 23.5" W
 - Newtok 60° 55' 49.6" N, 164° 37' 48.5" W
 - Cheforak 60° 9' 33.4" N, 164° 17' 2.6" W
 - Kipnuk 59° 55' 19.2" N, 164° 2' 12.7" W
 - Nightmute, and 60° 28' 51.3" N, 164° 42' 50" W
 - Umkumiut 60° 30' 9.2" N, 165° 12' 5.1" W
 - Toksook Bay 60° 30' 40.8" N, 165° 5' 29.6" W
- Kuskokwim River villages from
 - Tuntutuliak 60° 19' 46.8" N, 162° 39' 48.8" W to
 - Aniak 61° 47' 33.1" N, 159° 31' 56.9" W

Project Duration

Project Start date: September 1, 2012

Project End Date: September 30, 2016

Project Duration: 4 years

Project Description

Purpose: This purpose of this project is to protect coastal areas, including wetlands. This will be accomplished by assessing the need for and interest in solid waste cleanup in the villages in the Yukon-Kuskokwim Delta area, developing solid waste improvement plans and assisting with actual solid waste cleanup in some of the villages, and, where needed, providing training in best practices concerning solid waste.

Need: The villages of the Yukon-Kuskokwim Delta are ill equipped to deal with the continuing influx of non- traditional waste, including: automobiles, snowmobiles, electronics, batteries, hydrocarbons, drums, outboard motors, packaging, containers, plywood, metal and fiberglass boats, plastics, Styrofoam, etc.

Waste disposal issues have long concerned YKCA communities, where most of the unlined, leaking landfills are woefully inadequate to handle the amount and types of waste they receive—and can more accurately be described as dumps. As a result, village residents resort to make-shift waste disposal methods, including mixing human waste and household waste, disposing of hazardous waste in the dump, and using ponds as dump sites.

A Zender Environmental 2001 study found that residents who visited their village dump were 2 to 3.7 times more likely to experience faintness, fever, vomiting, stomach pain, ear and eye irritation, headache, and/or numbness symptoms than people who didn't visit the dump.

Unlined, unfenced and uncovered dumps heavily impact the local environment and to a lesser extent the surrounding Refuge environment. Most villages have, at best, a Class 3 unpermitted dump that generates problems such as:

- Batteries leaking acids into wetlands
- Oil and other hazardous wastes entering wetlands/groundwater
- Floods and erosion washing wastes from dumps into waterways
- Accidental or uncontrolled open burning
- Inadequate burn barrels spreading airborne pollutants
- Windblown particulates and pathogens migrating to the village and waterways
- Dumps lying in close proximity to subsistence fishing sites
- Discarded snowmobiles and trucks clogging dump site
- Vehicle tires/tracks spreading contaminated soil/snow into the village—and, via runoff, to waterways
- Moose, bear, birds and other species easily accessing unfenced dumps and carrying toxins into the surrounding environment

Measurable Goals and Objectives

Goal 1. Assess solid waste conditions in interested YKCA villages

- Objective 1-Determine risks related to solid waste at each village, including the following:
 - Potential ground water impacts
 - Adequacy of fencing to prevent litter and pollution
 - Potential for flooding or erosion to threaten the integrity of site
 - Size of facility – sufficient for community

- Storage of hazardous waste
- Adequate disposal of dead animal parts and biological waste
- Presence of potentially dangerous methane production

Goal 2. Select target villages and plan improvements in them

- Objective 1- Select 18 villages to target improvements that will benefit the coastal environment.
- Objective 2- Plan dump improvements in each selected village identifying specific remediation methods for each site and strategies for Best Practices that should be employed in managing the selected site.

Goal 3. Improve approximately 18 dumps to protect, conserve or restore coastal areas including wetlands.

- Objective 1- Improve 5 dumps 2013
- Objective 2- Improve 6 dumps in 2014
- Objective 3- Improve 7 or more dumps in 2015

Dump improvement projects such as the following could be implemented:

- Building platforms for burn units
- Installing burn units
- Building/placing materials sheds
- Erecting fencing to contain windblown wastes and control dump access
- Erecting instructional signs
- Installing collection containers
- Covering and compacting waste
- Cleaning up unofficial dumpsites (and consolidating wastes in official dump)
- Separating recyclables from hazardous materials
- Backhauling recyclables and hazardous materials
- Building berms to separate sewage lagoon from solid waste dump

Typical supplies and equipment villages request include:

- Fish totes for storing & transporting hazardous materials
- Supersacks (to contain/organize wastes, and/or to bundle wastes for backhauling)
- Steel guarding to level and flatten site (with dozer)
- Purchase (or repair of) a small bulldozer

Goal 4. Provide best practices training

- Objective 1: Provide training on solid waste best practices to those communities that identify a need for it.

CIAP Authorized Use

This project benefits the natural coastal environment of Alaska's coastal zone (and the Refuges in which YKCA villages are located) and is based on Authorized Use 1, projects and activities for the conservation, protection, or restoration of coastal areas, including wetlands.

- This project directly conserves, protects and restores the natural coastal environment by preventing waste and toxins from entering sensitive coastal areas and wetlands through solid waste improvement projects.
- This project directly protects subsistence culture by providing cleaner subsistence foods.
- This project indirectly provides education about protecting the natural coastal environment and subsistence culture.