

Community Coastal Impact Assistance Program

Composting Toilets for Coastal Water Quality Improvement

Award Amount

\$ 14,600

Grantee

University of Alaska Fairbanks, Sea Grant Marine Advisory Program

Project Contact

Sub-Recipient Contact Name: Izetta Chambers
Address: P.O. Box 1040, Dillingham, AK 99576
Telephone Number: (907) 842-8323
Fax Number: (907) 842-5692
E-mail Address: Izetta.chambers@alaska.edu

Location

This project will take place in Clark's Point, and other locations including seasonal fish camps and fishing cabins, and popular sport fishing areas. Clark's Point is located on a spit on the northeastern shore of Nushagak Bay, 15 miles from Dillingham and 337 miles southwest of Anchorage. The community lies at approximately 58.844170° North Latitude and -158.550830° West Longitude.

Project Duration

Project Start Date: May 1, 2013
Project End Date: May 30, 2014
Project Duration: 13 months

Project Description

The proposed project aims to reduce pathogenic and bacterial water contamination of coastal marine environments by building and installing composting toilets where no facilities currently exist. CIAP funding would be for materials, tools and travel costs to hold a workshop in Clark's Point to teach people how to make a composting toilet and how to keep them operating. Funding will allow for the construction and installation of five composting toilets.

The toilets will be simple to build and maintain, and can be built for \$100/unit. The toilets will use bokashi, a Japanese system where the compost is usually started with fermented wheat or rice bran with a culture of natural lactic acid bacteria and yeasts, similar to those in yoghurt and sourdough bread starter.

Once completed, the toilets will be installed at Clark's Point, seasonal fish camps, and busy sport fishing areas. Clark's Point is a good location for the workshop because most people still rely on "honey buckets" for sewage disposal. A honey bucket is a bucket that is used in place of a flush toilet or outhouse in communities that lack a water-borne sewage system. Honey buckets are typically dumped in unregulated sites, often leading to water contamination as the sewage either seeps into the water table or flows into downstream freshwater or marine waters. In addition, Clark's Point residents have been using bokashi for indoor composting of kitchen scraps and the project organizers feel that this will help make

the project a success.

The University of Alaska Fairbanks Bristol Bay Campus can play a strong collaborative role in this project through the following:

- Utilization of the Bristol Bay Environmental Science laboratory for water testing;
- Workshops on manufacture and use of bokashi for composting toilets and for indoor composting of kitchen scraps;
- Facilitating dialogue with local construction contractors in an effort to encourage them to collect their sawdust for production into bokashi; and
- Serving as a clearinghouse of information relating to proper composting and aging of humanure, site considerations, and construction of composting toilets for use with bokashi.

The project could be carried out in the future as a workshop through the Marine Advisory Program, in conjunction with the Construction Trades Certification at the Bristol Bay Campus.

Measurable Goals and Objectives

1. Educate the local and regional population on the advantages of using composting toilets as an alternative to honey buckets by conducting a workshop in Clark's Point to teach residents to build composting toilets.
2. Construct and install five composting toilets in either Clark's Point or nearby fish camps that receive high levels of fishing activity.

CIAP Authorized Use

The activities outlined for this project are consistent with CIAP Authorized Use 1: Projects and activities for the conservation, protection, or restoration of coastal areas, including wetlands.

The construction and installation of composting toilets in remote areas where there are currently no sanitation facilities will protect coastal environments by reducing pathogenic and bacterial water contamination that occurs from unregulated dumping of raw sewage. A community workshop will be held in Clark's Point to teach residents to build composting toilets. Five composting toilets will be constructed during the workshop and the necessary skills and tools will remain in the community. Each composting toilet that is built, installed and used will reduce the potential that the coastal environment will be contaminated by raw sewage.