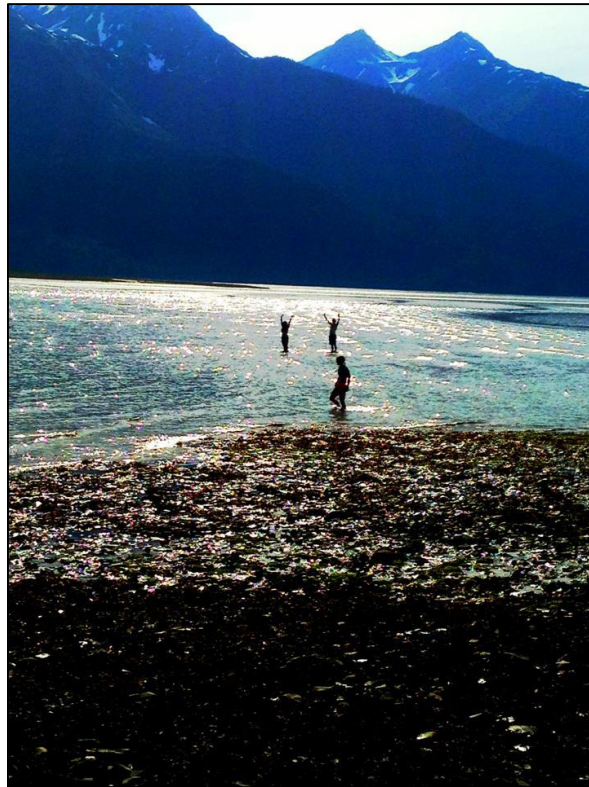


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## **BEACH Monitoring FY 2013 Final Report**



Prepared for:  
Alaska Department of Environmental Conservation  
Safe Swimming Beach Program  
Project #: BEACH 13-B02

The mission of Takshanuk Watershed Council is to provide stewardship for the Chilkat, Chilkoot and Ferebee River systems. Through restoration, education, research, and community involvement we will benefit the natural ecology, economy and quality of life valued by all residents.

## Executive Summary

During FY 2013 the Takshanuk Watershed Council (TWC) and the Alaska Department of Environmental Conservation (ADEC) partnered to monitor the levels of harmful bacteria at swimming beaches in Haines, Alaska. With funding and guidance from ADEC the TWC monitored levels of Fecal Coliform and Enterococci on a weekly basis from July 2012 to August 2012 and May 2013 to June 2013. All of the samples were below the safe limit. In addition to the monitoring program, TWC also published sample results to the community through the quarterly newsletter and Facebook. Through these efforts with ADEC, the Haines community has become better aware of local water quality.



## Introduction

Today, most beaches in Alaska are either not consistently monitored or not monitored at all, so visitors and residents face risks of illness from swimming and other activities in coastal areas that contain disease-causing bacteria.

The beaches of Haines offer a variety of water-related recreational activities such as, fishing, wildlife viewing, sea kayaking, kite-surfing, snorkeling, scuba diving, standup paddle boarding, swimming, and tide pooling. Beaches in and around Haines are also used for Haines Borough School District educational programs and field trips.

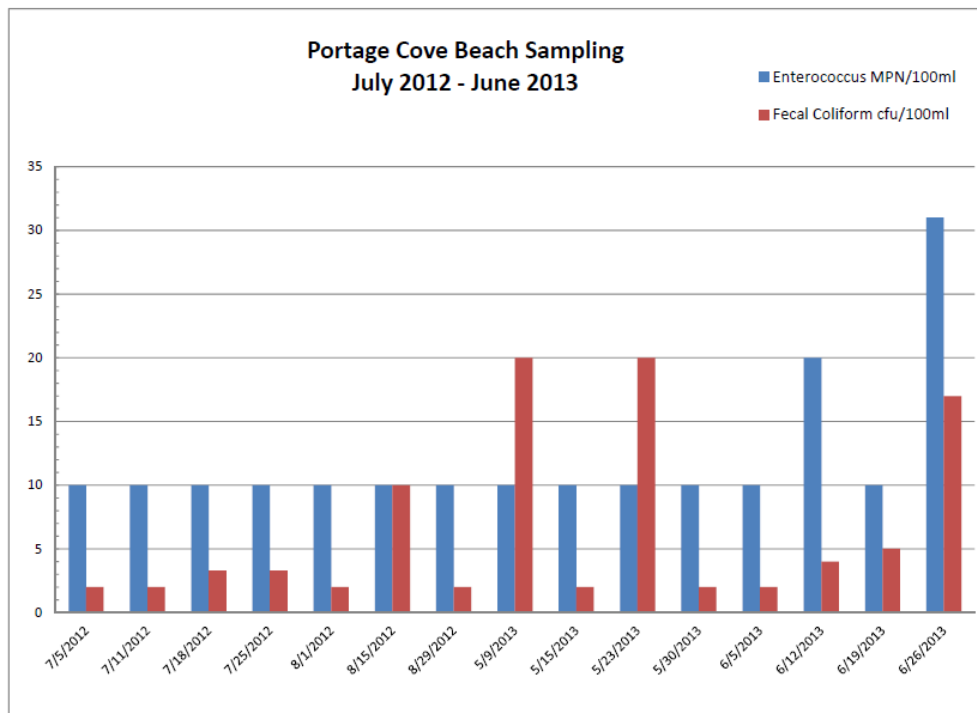
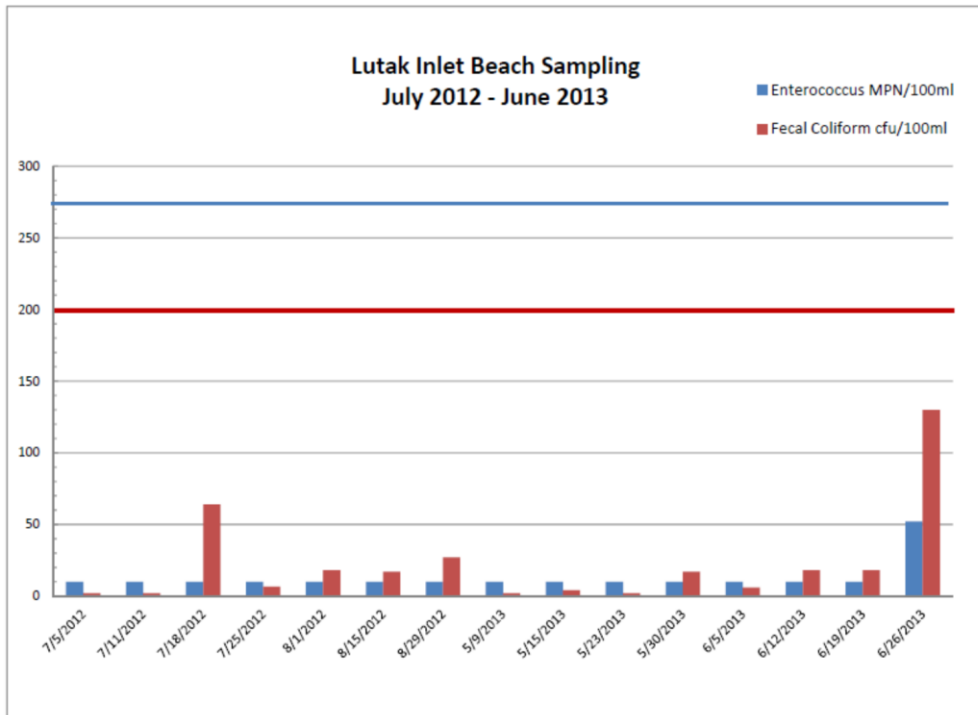
The water quality of many of the beaches in and around Haines are thought to be good, however, there is a lack of testing to confirm this. From this assumption there were two primary goals of the Haines Beach Monitoring Project. The first was to monitor bacteria levels at the most widely used recreational beaches (Portage Cove and Lutak Inlet) in the Haines Borough to gather data on the bacteria levels. The second was to increase public awareness of potential bacteria sources and the health risks associated with bacterial contamination.

## Methods and Results

In June of 2011 the Takshanuk Watershed Council (TWC) and Alaska Department of Environmental conservation (ADEC) identified Portage Cove and Lutak Inlet beaches as the primary swimming beaches in the Haines Borough. Prior to beginning the sampling the ADEC BEACH Water Quality Monitoring and Pathogen Detection Quality Assurance Project Plan (QAPP) was revised for sampling in the Haines Borough (attached). At the beginning of FY2013 the QAPP and BEACH Monitoring Handbook (attached) were reviewed and it was found that the field blank requirement was deemed unnecessary by the DEC Program Manager so we removed this from the QAPP and Handbook.

In addition, a Memorandum of Understanding [(MOU), attached] was established between the Haines Borough and the Takshanuk Watershed Council outlining the roles and responsibilities of how to notify the public and limit access to the beaches in the case of an exceedence.

Portage Cove and Lutak Inlet beaches were sampled on a once a week basis from 7/5/2012 8/29/2012 and 5/8/2013 to 6/26/2013, during FY 2013. Samples at each beach were tested for Fecal Coliform and Enterococci. A field replicate was taken at one of the locations each week on a rotating basis. All of the samples were below the safe limits established by ADEC and the Environmental Protection Agency (EPA). *See graphs.*



<b>Fecal Coliform Water Quality Standard (Alaska Department of Environmental Conservation)</b>	
Single Sample	200 fecal coliforms per 100mL
Geometric mean (average) of 5 samples within 30 days	100 fecal coliforms per 100 mL
<b>Enterococci Water Quality Standard (Environmental Protection Agency)</b>	
Single Sample	276 enterococci per 100 mL
Geometric mean (average) of 5 samples within 30 days	35 enterococci per 100 mL

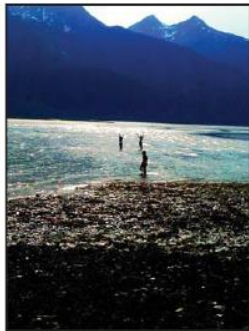


In addition to conducting the monitoring program, TWC also publicized sampling results in its quarterly newsletter and on its Facebook page. *See article below.*



# The Current

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Swimming at Carrs Cove on a warm summer day

## Beach Sampling Program

For the past 3 summers TWC has been monitoring water quality at two of our local beaches as part of the Department of Environmental Conservation (DEC) Safe Swimming Beach Program.

Through this program, Lutak Inlet and Portage Cove have

been sampled on a weekly basis May through August to monitor levels of fecal coliform and enterococcus. These are two forms of bacteria that have the potential to pose health risks to humans. Bacterial contamination in Alaskan waters can come from a variety of sources including;

shoreline development, wastewater collection and treatment facilities, septic tanks, urban runoff, and wildlife. Through the three summers of sampling at these two locations we only had one event that exceeded the state water quality standards (see graphs).

Our Beach sampling program through DEC is now complete, but if you see something in a waterway that seems suspicious we encourage you to contact us and we will investigate further.

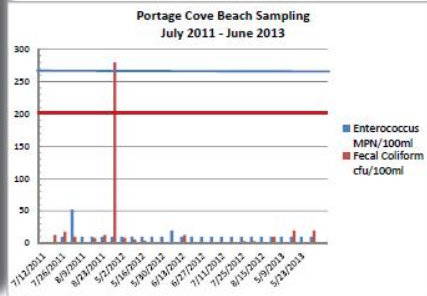
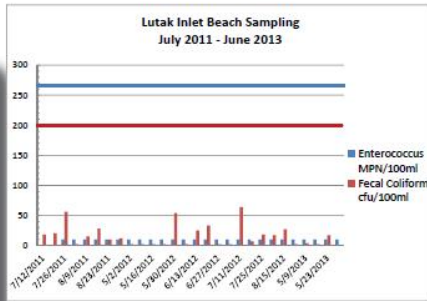
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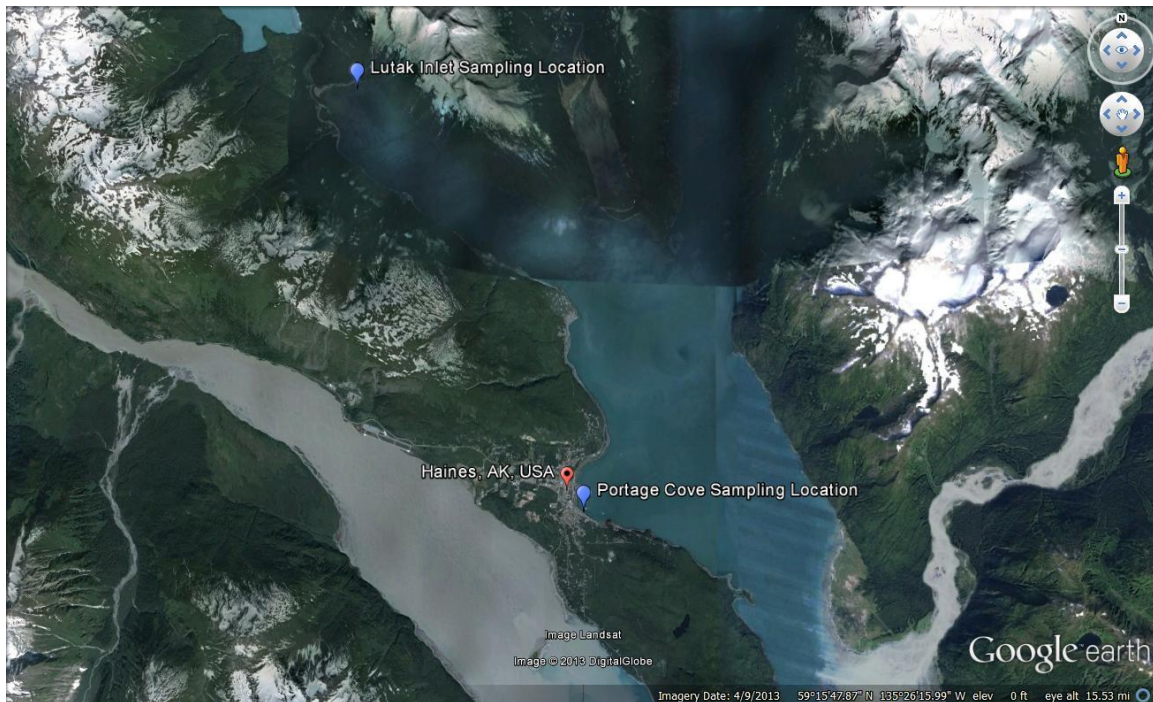
## Conclusion

During the sampling period from July 2012 to June 2013 the levels of harmful bacteria at Portage Cove and Lutak Inlet in Haines were below the safe level for recreational exposure, according to ADEC and the EPA.

For further information on the ADEC BEACH Monitoring Project, including a list of Alaskan communities that are part of this program, visit their webpage at:

[http://www.dec.state.ak.us/water/wqsar/wqs/beach\\_acwa1.htm](http://www.dec.state.ak.us/water/wqsar/wqs/beach_acwa1.htm)

## Appendix



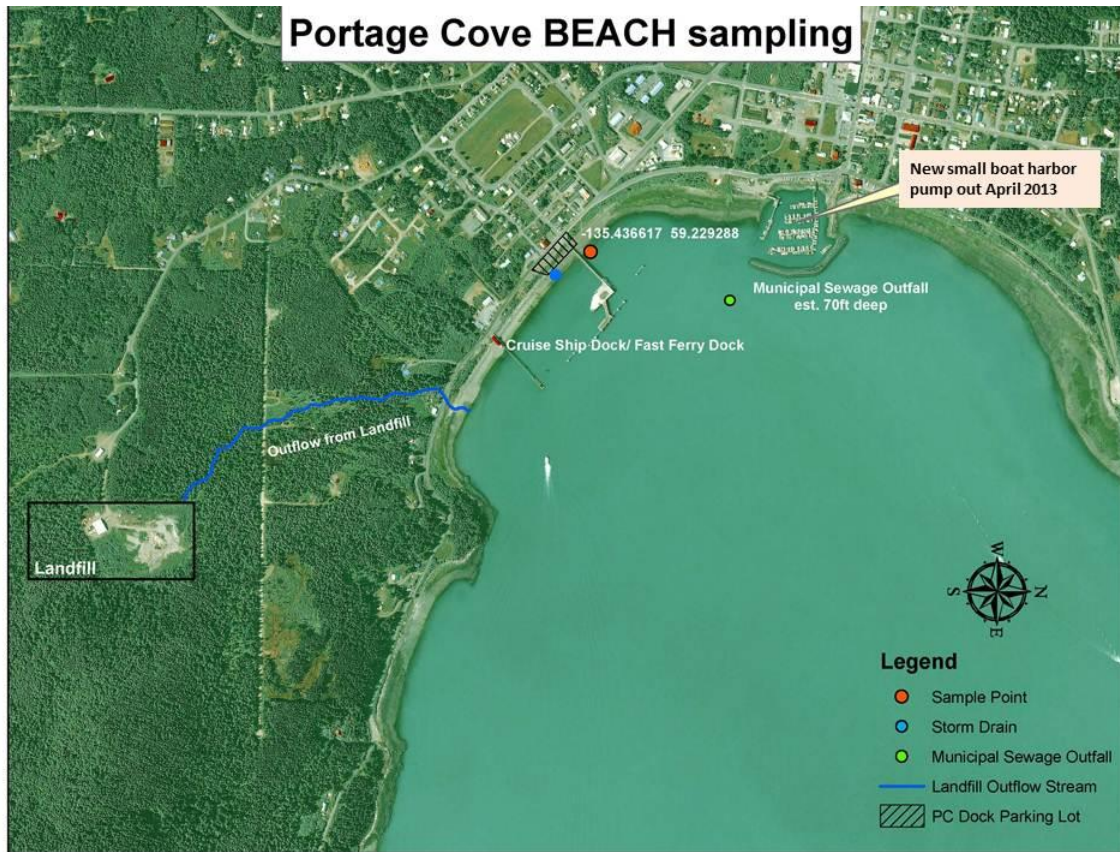
**Appendix A:** Overview of sampling locations



# Lutak Inlet



**Appendix B:** Map of Lutak Inlet with sampling location, septic systems, and culverts.



**Appendix C:** Map of Portage Cove sampling location, storm drains, municipal sewage outfall, and landfill outfall stream.