



U.S. Army Corps  
of Engineers  
Alaska District

## **ALASKA BASELINE EROSION ASSESSMENT**

### **Erosion Information Paper - Point Lay, Alaska**

Current as of March 6, 2009

#### **Community Information**

Point Lay (a.k.a. Kali), population 250, is on a low coastal bluff adjacent to the 85-mile long Kasegaluk Lagoon, immediately south of the Kokolik River delta, and about 300 miles southwest of Barrow. The Point Lay Defense Early Warning (DEW) radar station is just north of the community. The community is unincorporated in the North Slope Borough (NSB). The beach and shoreline are used for ATV travel, walking and recreation, boat access, and boat storage during the summer months.

#### **Description of Erosion Problem**

The community relocated to its present site in 1981 to avoid flooding and erosion problems. The community experiences some coastal erosion, which is not causing problems according to the 1986 *Point Lay Coastal Erosion Study* by R&M Consulting. The community is protected from the open Chukchi Sea by barrier islands that formed the Kasegaluk Lagoon. Wave action along the shoreline is mostly from local winds, however 25-year storm surges are estimated at about 10.4 feet Mean Sea Level (MSL) and 50-year surges at 11.3 feet MSL, according to Arctic Environmental Information and Data Center (AEIDC) information summarized in the R&M report. The bluff material is primarily frozen silts, overlain by a thin vegetative mat that is thermally degrading along an approximately 3,000-foot area. As a result, the slope is slowly subsiding. R&M estimated that the top of the bluff had receded 20-25 feet in the 10-year period between 1972 and 1982. Material sloughing off the bluff has accumulated in fans at the base of the bluff, extending the base by 20-30 feet in some areas.

#### **Potential Damages**

No structures or facilities are considered threatened or at risk. No erosion protection measures have been installed, nor are they reported as needed.

#### **Photos and Diagrams**

No photos were provided by community or other sources. The attached diagram shows the linear extent of thermal degradation occurring along the bluff.

## References

**R&M Consultants, Inc. 1986.** *Point Lay, Alaska: Coastal Erosion Study*. R&M Consultants, Inc. for Alaska District, Army Corps of Engineers.

**USACE. 2008.** *Alaska Community Erosion Survey*, OMB approved number 07100001, expires September 30, 2009 administered to Willard Neakok, Point Lay tribal council member, on March 14, 2008.

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## Additional Information

This information paper, as well as those for other communities, can be accessed on the internet at [www.alaskaerosion.com](http://www.alaskaerosion.com). For more information please contact the Corps of Engineers, project manager at (907) 753-5694 or email [Alaska.Erosion.POA@usace.army.mil](mailto:Alaska.Erosion.POA@usace.army.mil)

Chuckchi Sea is approximately 1 1/4 miles  beyond the Barrier Island Chain (off aerial photo)

KASEGALUK LAGOON

Area of thermal degradation  
per 1986 Coastline Erosion Study

KOKOLIK RIVER

DEW  
Line Station

Date of Aerial Photo: 20 July 03

**NOTE:** The extent of erosion shown on this figure is based on interviews with the community. This data has not been field verified. This figure is only intended to show areas of erosion, not rates or severity of erosion



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--- Linear Extent of Erosion



Alaska Baseline Erosion  
Point Lay, Alaska