U.S. Army Corps of Engineers
Alaska District

Erosion Information Paper - Eek, Alaska

Current as of November 10, 2007

Community Information

Eek (EEK), population 287, is on the south bank of the Eek River in the Yukon-Kuskokwim Delta, 12 miles east of the Kuskokwim River mouth. It is 35 miles south of Bethel and 420 miles west of Anchorage. The community is incorporated as a 2nd class city in the unorganized borough. The community was originally on the Apokok River and moved to its present location in the 1930s. "Eek" is the Native term for "*our eyes.*" During the fall flood tide, the water in the Eek River reaches the top of the north riverbank, and is said to be reaching the "eyes" of the riverbank. The Yup'ik name for Eek is *Ekvicuaq*, meaning *A Small Cliff*, referring to the "little cliff" just upriver from the community where the Eek River cuts into the hill adjacent to the community. Boat, snowmachine, and ATV ramps, fishing, hunting, and barge access are community activities using the banks and shoreline of the river.

Description of Erosion Problem

Based on the community erosion survey, Eek is subject to erosion along the banks of the Eek River. Causes and factors contributing to the erosion are natural river flow, melting permafrost, and pedestrian and ATV traffic. The active erosion area is an estimated 500 feet in length. The rate of ongoing erosion is estimated to be 6 feet inland per year. There have been no reports of flooding in Eek at its present location. Eek has a below-average flood hazard rating for 80% of the community, which is more than 15 feet above the river.

Potential Damages

Beach erosion was reported near the old airport, upstream of the community. In 1984 Eek received funds from the state ($42,900) to construct a timber and treated-piling retaining wall to solve the problem. A new airport was constructed inland at a safe distance from the Eek River. A residence and some fish racks were noted to have been damaged or destroyed by past erosion. The survey indicated these were repaired or removed by the owners.

Based on the community erosion survey, the active erosion area is less than 100 feet from a structure or item of importance (unnamed in the survey). Several other important structures and facilities are also threatened by erosion, including residences, food storage, drying racks, smoke houses, boardwalks and other important pathways, and the vacated airport runway. No further specifics were provided in the survey. There is a stream cutting its way from the southern tributary of the river towards the sewage/dumpsite and the new airport. No protective measures have been utilized to slow or stop erosion threats and no repair or operations and maintenance costs associated with former protective measures have been made.

Photos and Diagrams

No photos have been provided by the community or other sources. A diagram showing the linear extent of erosion is attached.

References

Alaska DOT/PF. 1984. *Task Force on Erosion Control Final Report*. Department of Transportation and Public Facilities.

DCCED, DCRA. 2007. *Community Database Online*, www.commerce.state.ak.us/dca/commdb/CF_COMDB.htm Department of Commerce, Community and Economic Development, Division of Community and Regional Affairs.

USACE. 1972. *Memo to files: Flood Hazard – Eek*. Alaska District U.S. Army Corps of Engineers.

USACE. 2007. *Alaska Community Erosion Survey, OMB approved number 07100001*, expires September 30, 2009 provided by facsimile from the Eek traditional council.

Additional Information

This information paper, as well as those for other communities, can be accessed on the internet at 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

EEK RIVER

Flow

Date of Aerial Photo: 17 Sept 04

Alaska District
Corps of Engineers
Civil Works Branch

Linear Extent of Erosion

Feet

N

Alaska Baseline Erosion

Eek, Alaska