

ALASKA BASELINE EROSION ASSESSMENT

U.S. Army Corps of Engineers Alaska District

Erosion Information Paper – Copper Center, Alaska

Current as of October 12, 2007

Community Information

Copper Center (also known as Kluti-Kaah), population 402, is along the Richardson Highway between mileposts 101 and 105. It is on the west bank of the Copper River at the confluence of the Klutina River just west of the Wrangell-Saint Elias National Park. The community is in the unorganized borough.

Description of Erosion Problem

According to the community survey, erosion occurs mainly along the west bank of the Copper River and the north bank of the Klutina River. The conditions causing or contributing to the severity of erosion in the community include natural river flow, seasonal flooding, spring breakup, and vehicle and boat traffic. According to the community, the latter increases seasonally when dip netting activities and guided tours depart from Klutina, Gulkana and Chitina. Other contributing factors in the area include glacial melt, fluctuating depths in river channels, and periodic opening and closing of river channels. Ice jams, stream overflows, and glacial-induced flooding occasionally occur, but are not considered to be serious.

Potential Damages

Advancing erosion is putting grave sites, native historical sites, and fish camps at risk. However, information regarding the exact location or proximity of these at-risk community sites of importance to advancing erosion is not available. An area behind the community's baseball field experienced significant erosion during the 2006-2007 year.

Various entities have undertaken a number of protective measures in the community over the years to help limit potential damage from erosion. Examples include: (1) the owner of the Gakona Historical Lodge installed riprap to protect the lodge; (2) riprap was also installed at the juncture of Tazlina and Copper rivers; (3) Alyeska Pipeline Service Company installed a boat ramp behind the Copper River Lodge to protect the area from a potential pipe line break; and (4) the Corps of Engineers constructed a 4,100-foot levee along the north side of the Klutina River in 1972. More recently (September 2004), the Corps visited the community to inspect the levee, and found the majority of the project was in good condition, except for two areas: (a) a 150-foot section of eroded embankment just upstream of the Richardson Highway Bridge crossing; and (b) an access path that had been cut across the embankment, lowering the crest height by 3 feet. The Corps recommends restoring both these areas to their original embankment cross section.

Photos and Diagrams

No photos provided by the community. See attached diagram showing linear extent of erosion.

References

Unknown. 1985. Inventory of Rural Sanitation Services, Copper Center.

University of Alaska. 1977. *Copper Center*. Prepared by the. University of Alaska, Arctic Environmental Information and Data Center.

USACE. 2004. Copper Center Trip Report. Alaska District, U.S. Army Corps of Engineers.

USACE. 2007. Alaska Community Erosion Survey, OMB approved number 07100001, expires September 30, 2009 administered to Catherine Martin, vice president for land and resources, Ahtna Inc.

Additional Information

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

Richardson Highway

Approximate Location of Gravel Flood Control Embankment

Date of Aerial Photo: 19 June 04

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



Alaska District Corps of Engineers Civil Works Branch

---- Linear Extent of Erosion





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