U.S. Army Corps of Engineers
Alaska District

ALASKA BASELINE EROSION ASSESSMENT

Erosion Information Paper - Ambler, Alaska

Current as of March 10, 2008

Community Information

Ambler (AM-blur), population 277, is on the north bank of the Kobuk River just below the confluence of the Ambler and Kobuk Rivers. It is 45 miles north of the Arctic Circle, 138 miles northeast of Kotzebue, 30 miles northwest of Kobuk, and 30 miles downriver from Shungnak. The community is incorporated as a 2nd class city in the Northwest Arctic Borough.

Description of Erosion Problem

Erosion along the shoreline of the Kobuk River is primarily from ice break up in the spring. The city reported more than 40 feet of riverbank erosion in the past 30 years. Some areas of the community are subject to flooding and erosion during the rainy season.

Riverbank erosion at the airport bridge, along Kobuk Avenue and other streets are caused by run off following storms and during spring break up. In 1984 the Department of Transportation and Public Facilities (DOT/PF) reported that an approximately 1,500-foot area of new development along the riverbank upstream from the barge landing is eroding because seepage from upslope keeps the glacial till saturated and the main Kobuk River channel impinges on the bank at nearly a right angle. According to a 1984 DOT/PF *Task Force Report,* several local landslides have been caused by slumping of saturated glacial till.

Flooding and erosion have reportedly caused little or no problems in the community prior to the 1980s, when all structures were a safe distance away from the riverbank. According to the 2000 *Ambler Sanitation Facilities Master Plan* prepared by the Arctic Slope Consulting Group, the Kobuk River overflowed in 1968, and again in 1994, with little damage to the community.

Potential Damages

In 1987-88, the city built an erosion control project of concrete-filled bags to protect part of the city's river front. The project was funded by state grants, however a shortfall in funding prevented the project from being completed. Erosion along this area has been mitigated to some extent by installing concrete bags, but these measures have been failing in recent years as bags sag and tear.

Structures and facilities at risk from erosion include the river crossing called "Grizzly Bridge", which is a 1-lane log bridge on the access road to the airport, Kobuk Street and other streets, and the washed out boat ramp.

Photos and Diagrams

No photos were provided by the community or other sources. The attached diagram shows the approximate linear extent of erosion.

References

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

ASCG. 2000. *Ambler Sanitation Facilities Master Plan,* Arctic Slope Consulting Group, Inc.

NWAB. 2007. *Ambler community information for planning.* Northwest Arctic Borough Planning Director.

USACE. 2008. *Alaska Community Erosion Survey, OMB approved number 07100001*, expires September 30, 2009 administered to Morgan Johnson, Ambler mayor and Carolyn "Lena" Ballot, Ambler city administrator, on March 10, 2008.

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

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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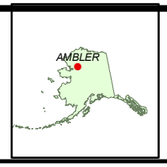
Linear Extent of Erosion



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Alaska Baseline Erosion

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