



U.S. Army Corps
of Engineers
Alaska District

ALASKA BASELINE EROSION ASSESSMENT

Erosion Information Paper - Crooked Creek, Alaska

Current as of March 27, 2008

Community Information

Crooked Creek, population 129, is on the north bank of the Kuskokwim River at its confluence with Crooked Creek, 50 miles northeast of Aniak, 141 miles northeast of Bethel, and 275 miles west of Anchorage. The community is unincorporated in the unorganized borough.

Description of Erosion Problem

Fluctuations in water levels and flow, ice jams, and spring break up are reported to contribute to bank erosion. Spring flooding caused by ice jams in Crooked Creek washes out community roads. The community reports minor periodic bank erosion along the creek and Kuskokwim River. Tugs maneuvering barges into landing position may scour the bottom and banks. Waves from barge traffic reportedly may cause more general erosion along the Kuskokwim River.

Potential Damages

The road to the post office, school, and airport are washed-out annually, limiting access to these areas. Access is cut off to the community's health clinic, generators, and safe water by road wash-outs every spring. A house on the bank of Crooked Creek was lost to erosion about 20 years ago. The creek has reportedly begun to erode toward residences.

The record flood was in 1946 when the water level rose 8 feet and flooded 7 homes. According to Corps information, flooding is a problem primarily in middle and upper reaches of Crooked Creek. A Housing and Urban Development residence built on the west bank of the creek 5 or 6 years ago is at risk of erosion damage from ice-induced spring flooding. Willows and small spruce have been planted or placed along the banks of Crooked Creek for erosion protection. The community purchases, hauls, and spreads gravel on the roads each year, however the gravel continues to erode. The cost for gravel placement reached \$100,000 in severe erosion years. The Federal Emergency Management Agency provided financial assistance about 3 years ago.

Residences on both sides of Crooked Creek may be threatened if the creek shifts. The Division of Community and Regional Affairs and Interior Rivers Resource Conservation and Development Council's *2001 Crooked Creek Community Profile Map* stated the Catholic Church, Thomas Lodge, 9 residences on the east side of Crooked Creek, and a home on the west side of the creek could be at risk from future erosion. All these structures are less than 200 feet from Crooked Creek or the Kuskokwim River.

Photos and Diagrams

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

References

DCRA. 1979. *Crooked Creek Community Profile and Map*. Prepared by Darbyshire and Associates for the Division of Community and Regional Affairs.

DCRA. 2004. *Crooked Creek Community Profile Map*. (2001 Aerial Photo). DCRA and Interior Rivers RC&D Council.

USACE. 1974. *Flood Data, Crooked Creek*. Alaska District, U.S. Army Corps of Engineers.

USACE. 2008. *Alaska Community Erosion Survey, OMB approved number 07100001*, expires September 30, 2009 administered to Evelyn Thomas, Crooked Creek village council administrator, on March 27, 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



Date of Aerial Photo: 14 September 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



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