



U.S. Army Corps  
of Engineers  
Alaska District

## **ALASKA BASELINE EROSION ASSESSMENT**

### **Erosion Information Paper - Evansville, Alaska**

Current as of December 14, 2007

#### **Community Information**

Evansville is on the south bank of the Koyukuk River, about 180 miles northwest of Fairbanks. It is adjacent to the community of Bettles and just north of the Kanuti National Wildlife Refuge. Evansville is incorporated as a 2nd class city within the unorganized borough. During a few winter months the 30-mile Hickel Trail, also called the Bettles winter road, gives residents access to the Dalton Highway, which leads to Fairbanks. Boat ramps, snowmachine crossings, processing catch, beachcombing, cultural and social events, and driftwood collecting are community activities using the riverbank.

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

The Evansville community survey reports seasonal riverbank erosion associated with the Koyukuk River. The riverbank was estimated in the survey to be between 15 and 20 feet high along most of this area. Natural river flow, heavy rains, flooding, ice jams, spring breakup, and melting permafrost contribute to erosion. An August 1994 major erosion event during heavy rains caused extensive flooding on the Koyukuk River. No measurement records were provided in the erosion survey, but the rate of ongoing river erosion in Evansville was estimated to be 10 feet per year.

#### **Potential Damages**

Riverbank erosion is threatening 5 homes estimated to be less than 50 feet from the bank. Other structures and facilities estimated to be less than 100 feet from the eroding bank include the power plant, 3 fuel tanks, outbuildings/sheds, and smoke houses. The fuel tanks are 185 feet east of the current eroding cut bank located behind the power plants generator. The clinic and the Evansville tribal council office are estimated to be just over 500 feet from the river bank. The erosion survey reports some utility poles have been relocated to avoid loss.

According to a 2006 report, the U.S. Department of Agriculture, Natural Resources Conservation Service received funding through the Emergency Watershed Protection program to provide emergency measures at Evansville, including the purchase of floodplain easements that may be used to remove/buyout affected property owners.

#### **Photos and Diagrams**

A photo depicting river erosion at Evansville is attached. It was provided by the U.S. Fish and Wildlife Service Alaska image library. Also, attached are diagrams depicting the linear extent of erosion along the shoreline of Evansville. The linear extent of erosion along the shoreline of the adjacent Bettles community is provided in a separate Erosion Information Paper.

## References

**DCRA. 2007.** *Capital projects and grants database online at*

[http://www.commerce.state.ak.us/dca/commdb/CF\\_BLOCK.cfm](http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.cfm) State of Alaska, Division of Community and Regional Affairs.

**NRCS. 2006.** *NRCS - 2006 in Review*. Prepared by U.S. Department of Agriculture, Natural Resources Conservation Service.

**USACE. 1977.** *Flood Data: Evansville, Bettles, Bettles Field*. Alaska District, U.S. Army Corps of Engineers.

**USACE. 2007.** *Alaska Community Erosion Survey, OMB approved number 07100001*, expires September 30, 2009 administered to Rachel Hanft, Evansville tribal council family youth serves social worker who also works as the Bettles city clerk, on November 30, 2007.

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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)



**Photo 1: Koyukuk River erosion at Evansville. USFWS, 2003.**



Date of Aerial Photo: 27 September 05

**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  
Evansville, Alaska