



U.S. Army Corps
of Engineers
Alaska District

ALASKA BASELINE EROSION ASSESSMENT

Erosion Information Paper - Hughes, Alaska

Current as of April 23, 2008

Community Information

Hughes (HEWZ), population 77, is on the east bank of the Koyukuk River, about 115 miles northeast of Galena and 210 miles northwest of Fairbanks. The community is incorporated as a 2nd class city in the unorganized borough. The riverbank is used for boat access, snowmachine access, ATV access, barge access, boat storage, fishing, hunting, processing catch, driftwood collecting, and other activities.

Description of Erosion Problem

The Koyukuk River bank is eroding at Hughes. Periodic fluctuations in river flows and levels, flooding, ice jams, spring break up, and melting permafrost are reported to contribute to erosion. The active erosion area is approximately 1,200 feet along the north end of the community in the residential area where the bank is approximately 10 feet high. Ongoing erosion is reported at about 5 feet per year, but no documentation or measurements were provided or available. The community of Hughes has a history of frequent flooding and associated erosion with floods reported in 1937, 1938, 1963, 1964, 1965, 1966, 1968, 1972, 1989, and 1994. The worst flood was caused by heavy rains during August 1994.

Potential Damages

Water levels rose more than 40 inches above the finished floor elevation at the Hughes school during the 1994 flood. Three homes are estimated at less than 50 feet from the riverbank. Four homes are estimated between 85 feet and 150 feet from the riverbank. Outbuildings, sheds, drying racks, smokehouses, a road, and the end of the airport runway are structures threatened by bank erosion. No protective measures have been taken to slow or stop the erosion.

Photos and Diagrams

Attached is a photo of the 1994 flood, provided by the Division of Homeland Security and Emergency Management taken from the Division of Community and Regional Affairs (DCRA) *Community Photos Online Website*. Also, attached is a diagram depicting the linear extent of erosion in the community.

References

City of Hughes. 1995. *Hughes: The Comprehensive Plan*. August 1995.

DCRA. 1994. *Community Photos Library*. Division of Community and Regional Affairs.

http://www.commerce.state.ak.us/dca/photos/comm_list.cfm

LCMF. 1995. *Hughes Bulk Fuel Field Report*. LCMF Limited Engineering Surveying Planning, Project Management.

USACE. 2008. *Alaska Community Erosion Survey*, OMB approved number 07100001, expires September 30, 2009 administered to Hughes village council provided via facsimile, on April 23, 2008.

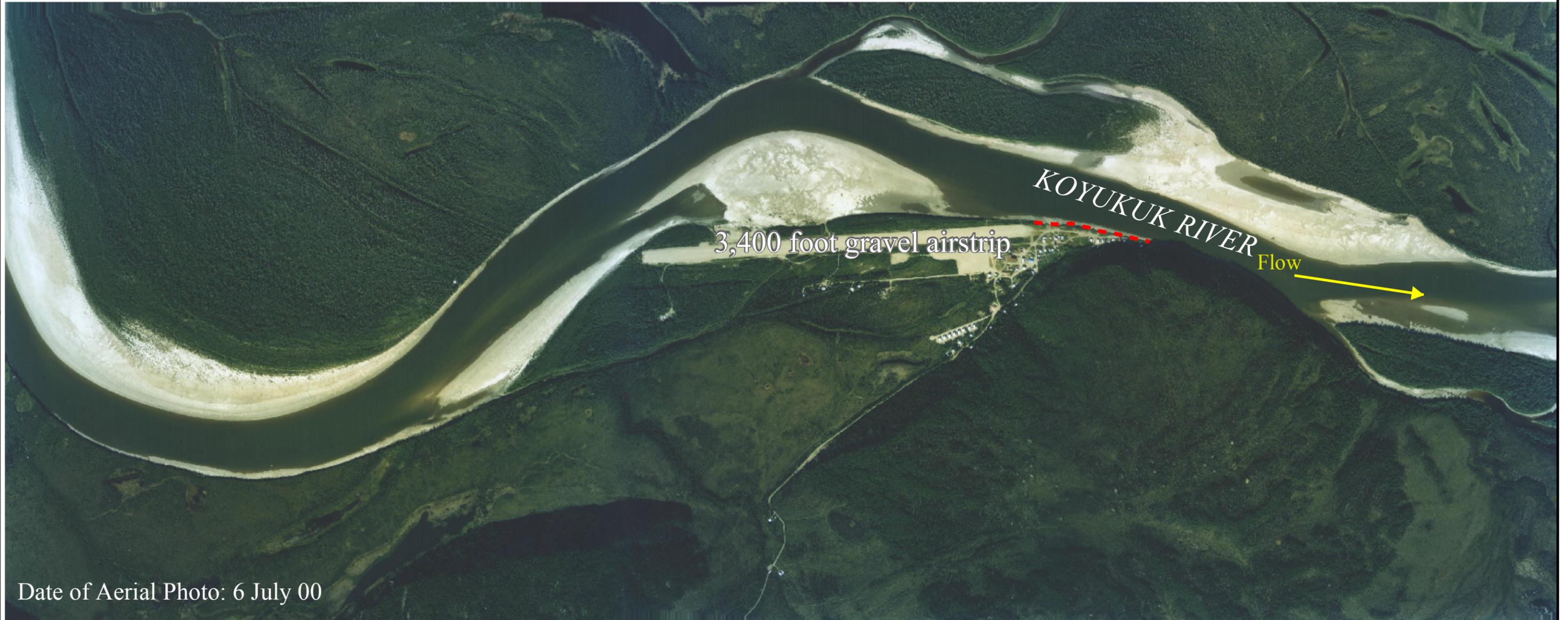
Additional Information

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



Koyukuk River Flood, City of Hughes, Alaska, August 1994

Photo 1: Hughes during the August 1994 flood; school is the red roofed building in the center of photo; photo courtesy of Division of Homeland Security and Emergency Management 1994.



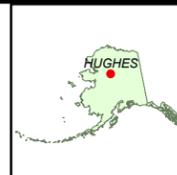
Date of Aerial Photo: 6 July 00

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



Alaska Baseline Erosion
Hughes, Alaska