



**U.S. Army Corps
of Engineers**
Alaska District

ALASKA BASELINE EROSION ASSESSMENT

Erosion Information Paper - Red Devil, Alaska

Current as of April 2, 2008

Community Information

Red Devil, population 34, is on the Kuskokwim River at the mouth of Red Devil Creek. It is 75 miles northeast of Aniak, 161 miles northeast of Bethel, and 250 miles west of Anchorage. The community is unincorporated in the unorganized borough. The community was named after the Red Devil Mine, established in 1921 when numerous mercury (quicksilver) deposits were discovered in the surrounding Kilbuck-Kuskokwim Mountains. The mine operated until 1971. The riverbank is used for barge access near the airport runway, boat storage, and fishing.

Description of Erosion Problem

Red Devil reported periodic severe and chronic bank erosion along the Kuskokwim River. Fluctuations in river flows and heights, and flooding exacerbated by significant ice jams reportedly cause and contribute to erosion. The river undercuts steep banks so they drop into the river. This process results in episodes of extensive bank erosion. Ice carried by spring floods erodes banks and scours areas that are inundated.

Potential Damages

The George Willis Sr. School building and the old Red Devil school building now used for storage are threatened structures less than 200 feet from the riverbank. The post office, the end of the gravel airport runway, a local river frontage road, and nearly all the homes in the community also may be threatened by erosion. The river is eroding toward an oxbow lake upstream of and behind Red Devil. When it reaches the lake, it may divert into and through it, presenting a new and greater erosion threat to the community. Homes on the back road and 4 homes on the north side of the river could be damaged if the river diverts through the lake area. The Red Devil Lodge is approximately 150 feet from the river and some other dwellings are about 100 feet from the river. The Red Devil Lodge plans to relocate to an area near Georgetown on the north bank of the upper Kuskokwim River about 16 miles northwest of Red Devil. Ice carried by breakup runoff damages roads and the airport runway surface.

Photos and Diagrams

Photos are attached of erosion caused by ice during spring flooding in 2002, provided by the Division of Homeland Security and Emergency Management (DHSEM). Also, attached is a diagram depicting the linear extent of erosion.

References

Darbyshire and Associates. 1979. *Red Devil community profile*. Prepared by Darbyshire and Associates for the Alaska Department of Community and Regional Affairs.

USACE. 2008. *Alaska Community Erosion Survey*, OMB approved number 07100001, expires September 30, 2009 administered to Gail Vanderpool, resident and owner of the Red Devil Lodge with her husband Robert, on March 27 and April 2, 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



Photo 1: Red Devil airport erosion caused by 2002 ice jam flood. Area measures 50 feet across by 3 feet deep by 74 feet wide. Photo courtesy of DHSEM, 2002.

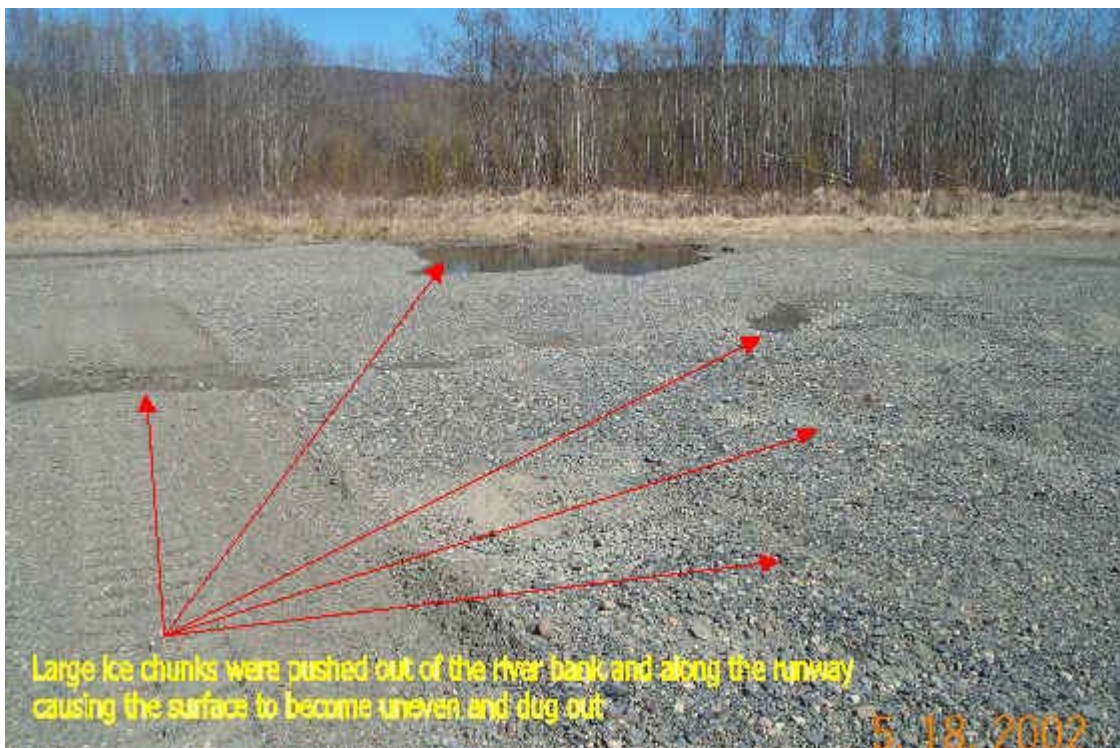
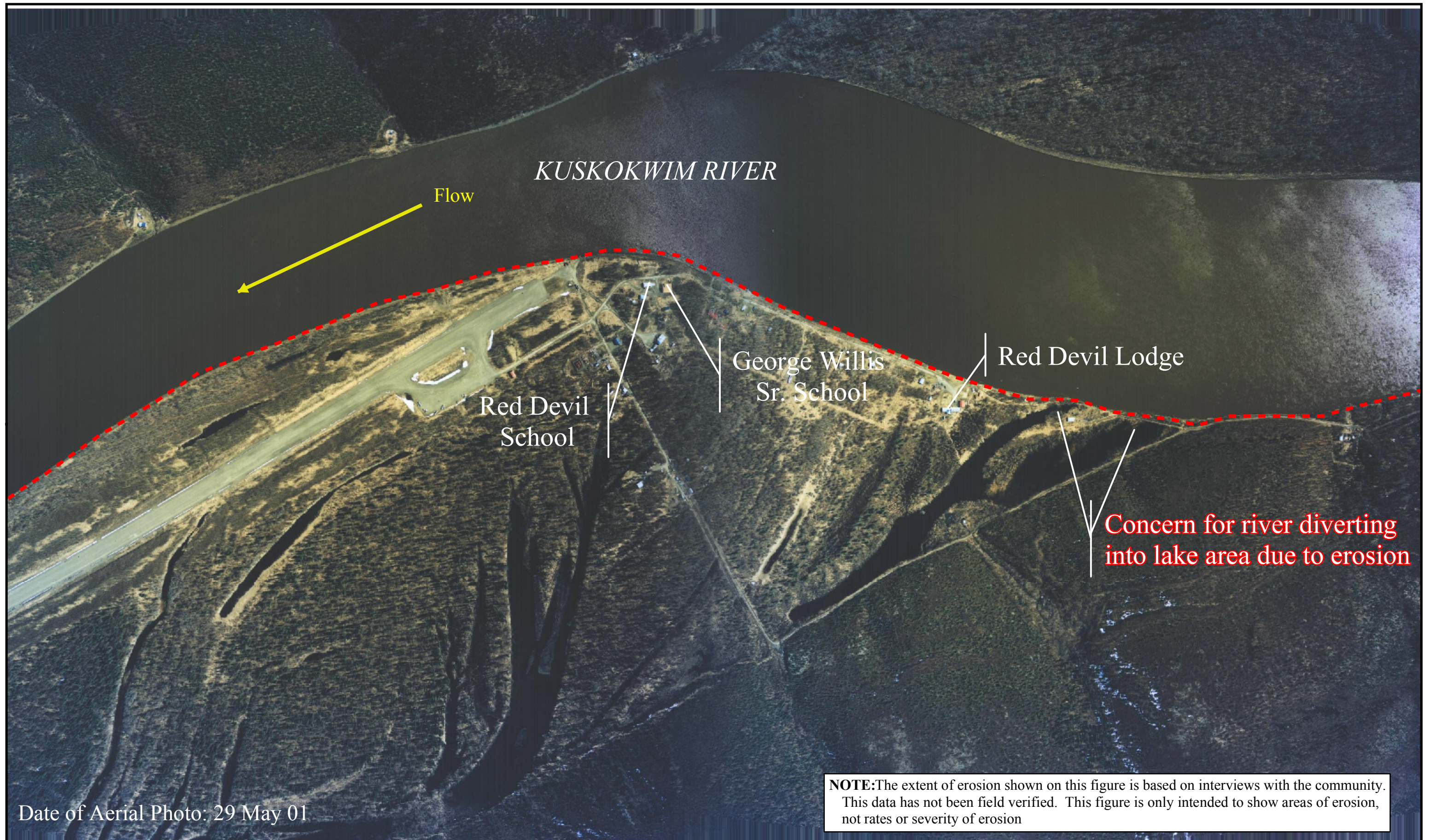
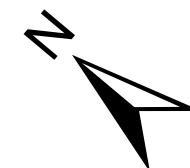


Photo 2: Ice pushed out of the Kuskokwim River caused erosion to the runway. Photo courtesy of DHSEM, 2002.



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--- Linear Extent of Erosion



Alaska Baseline Erosion
Red Devil, Alaska