Community Information
Buckland (BUCK-lund), population 457, is about 75 miles southeast of Kotzebue on the west bank of the Buckland River. It is 30 miles upriver from the mouth of Eschsholtz Bay, which opens into Kotzebue Sound. Buckland is a 2nd class city in the Northwest Arctic Borough. The banks of the Buckland River are used for numerous community activities, including pedestrian, snowmobile, and ATV travel; boat launching and storage, and fishing.

Description of Erosion Problem
Much of Buckland is in the Buckland River floodplain. Erosion processes include natural river flow, flooding, ice jams, spring break-up, and melting permafrost. Bank soils consist primarily of loamy sand, and water depth is 10 to 15 feet along the riverbank. The west bank has moved inland approximately 140 feet since 1972. An analysis of U.S. Survey 4482 confirmed the Buckland River has eroded an average of 4 feet per year. In some areas, erosion has been recorded at a rate of up to 11 feet per year. In the 2002 Buckland Environmental Infrastructure Environmental Assessment Report, the Corps estimated that erosion ranges from 3.5 to 5 feet per year. The Buckland River is reported to lose about 10 feet of the west bank (city side) each year due to flood-induced erosion.

Potential Damages
Flooding in 1971 and in 1987 caused much damage, including erosion damage. In the Buckland Environmental Assessment Report the Corps estimated that within 30 years (from 2002), the advancing bank erosion will impact the post office, several homes and the main access road to the Mountain View subdivision on the south side of the city. The Buckland city administrator reported that the erosion has encroached to less than 100 feet from a number of community structures, including outbuildings and sheds, drying racks, smoke houses and other food storage facilities, utility poles and lines, boardwalks and important pathways, and some subdivisions. The community survey also reported that encroaching erosion along the southeast side of the river is only about 60 feet away from 5 homes. In 1993, the pump house at the river’s edge was
relocated at a cost of $5,000. According to the community survey, the community has undertaken several protective measures over the years to control the erosion, but none have been successful.

**Photos and Diagrams**
The City of Buckland administrator, Darlene Hadley provided the attached erosion photos. Also, attached are diagrams depicting the linear extent of erosion in the community.

**References**


**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: Buckland River bank, September 2007.


Date of Aerial Photo: 13 June 96

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.