Newtok, Alaska
Near Bering Sea

Within:
- Yukon-Kuskokwim Delta
- Yukon Delta National Wildlife Refuge
NINGLICK RIVER
EROSION ASSESSMENT

FINAL REPORT
February 24, 1984

Prepared for
The City of Newtok
Newtok, Alaska 99559

by
Woodward-Clyde Consultants
Anchorage, Alaska 99503

1983 Legislative Grant for Erosion Assessment
Ninglick River Erosion Assessment

Findings:

- If process could not be slowed, community structures would be impacted within 25 - 30 years (2008-2013).
- Providing full erosion protection would be prohibitively expensive.
- "Relocating Newtok would likely be less expensive than trying to hold back the Ninglick River."
Loss of land to erosion 1983-1996
River bank has eroded up to bend in river in 1996 photo
Erosion of Ninglick River Bank
Erosion of Ninglick River Bank

Undercutting of Ninglick River bank results in deep thermo-erosional niches.
Collapse of bluff due to undercutting
Historical and Projected Erosion in Newtok:

The shoreline in 1954

The dump site and the barge landing have already eroded away.

First houses impacted by erosion between 2012 and 2017 (village believes it will be sooner).
Selecting a village relocation site:

1994: Newtok Traditional Council makes decision to move and begins relocation planning process.

- Analyzed six potential village relocation sites.
- Selected Mertarvik, site located on north end of Nelson Island (~ 9 miles southeast of Newtok).

1996: Newtok Native Corporation passes a resolution authorizing the negotiation of a land exchange within the Yukon Delta National Wildlife Refuge with the U.S. Fish and Wildlife Service (USFWS).

Secretary of the Interior Gale A. Norton signs the land exchange legislation as members of Newtok Native Corporation look on. (Source: Landye Bennett Blumstein LLP)

Secretary Norton speaks to the Newtok Native Corporation. (Source: Landye Bennett Blumstein LLP)
Depiction of the September 22, 2005 fall storm
Some houses were only connected to the village by boardwalks floating in the water.
The remains of the barge landing on the Ninglick River
Challenges to the Delivery of Fuel and Other Critical Supplies

Fuel and supplies must be delivered on Newtok River (but siltation from erosion has turned river into slough)

Last year, fuel barge was grounded for 3 days
Because of erosion and flooding, funding agencies are reluctant to invest in new infrastructure.

Aging and deteriorating fuel tanks.
The old landfill eroded away in 1996. The new landfill is accessible by boat at high tide only.
Leakage from school sewage lagoon
Public Health Issues attributed to Deteriorating Infrastructure:

**Environmental Public Health Assessment: Newtok, Alaska**

- Sanitation conditions in Newtok “grossly inadequate for public health protection.”
- Conditions appear to result from lack of infrastructure development and failure to properly maintain existing infrastructure.
Mertarvik:
“getting water from the spring”
The barge ramp the village built to deliver housing packages to Mertarvik
The barge delivering 3 BIA HIP Homes
Taking the housing packages off the barge
Building 3 homes on Mertarvik
The Newtok Planning Group

Assisting Newtok with relocation efforts since 2006
The Newtok Planning Group was formed in May 2006 when representatives from state and federal agencies and non-governmental organizations began meeting to coordinate assistance to the village of Newtok in its relocation to the new village site, Mertarvik, on Nelson Island. The Division of Community & Regional Affairs coordinates the Newtok Planning Group (NPG).

Download a list of the participants of the NPG.

Through this effort, the agencies and organizations working with Newtok are finding new ways to collaborate and leverage resources to assist the Newtok community in its relocation efforts. Over the past two years, a community layout for the future village has been completed and funding has been acquired for a barge landing and staging area, an access road, and an evacuation center. A suite of emergency response plans is being developed for the community, and studies are underway for water/sewer and alternative energy infrastructure, housing, quarry development and a future airport.

To learn more about the emergency response and relocation work currently underway for Newtok and the new village site, Mertarvik, please see the drop down menu titled "Emergency Response/Relocation Work", below.

The community layout plan for Mertarvik, Newtok's selected relocation site on Nelson island, was completed in June 2008. The community layout provides the "blueprint" for future development at the new village site.

For more information, please contact:
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Mertarvik Barge Landing & Staging Area

**DCCED:**
Grantee and project co-manager

**EDA:** Grantor
$800,000

**DOT/PF:**
Project manager and providing match for grant
Mertarvik Community Layout Plan

- Division of Community & Regional Affairs (DCRA) Mini-Grant Program (Denali Commission Funding)
- DCRA assisted Newtok Traditional Council with grant application
- Newtok Traditional Council hired HDR Alaska to develop community layout
Final layout funded through DCRA Mini-Grant Program
Test Well by Village Safe Water Program
Mertarvik Evacuation Shelter

Community Planning Grant to Newtok Traditional Council

Alaska Climate Change Impact Mitigation Program (Division of Community & Regional Affairs)

Newtok Traditional Council hired Cold Climate Housing Research Center to design the evacuation shelter
Mertarvik Evacuation Shelter