



# **Alaska Department of Transportation & Public Facilities**

## **ADDRESSING CLIMATE CHANGE IMPACTS IN ALASKA COMMUNITIES**

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## Public Infrastructure and Climate Change – ADOT/PF

- The Alaska Department of Transportation and Public Facilities (ADOT&PF) manages the State's transportation infrastructure in a very challenging environment
- Many facilities in the Alaska's interior, northern, and southwest regions are underlain by ice-rich permafrost





# Alaska Department of Transportation and Public Facilities

- **Over 14,000 Miles of Public Roadway**
- **Over 5,600 Miles of State owned road**
- **845 Bridges**
- **257 Rural Airports**
- **28 Harbors**
- **720 Buildings (DOT owned or managed)**





# Climate Change Impacts

- **Melting/Warming permafrost**
- **Increased storm frequencies and intensity**
- **Increased Coastal erosion due to lack of sea-ice**
- **Increased river and shore erosion**
- **Sea-level rise**
- **Increasing temperatures**





# ADOTPF Adaptation Strategies

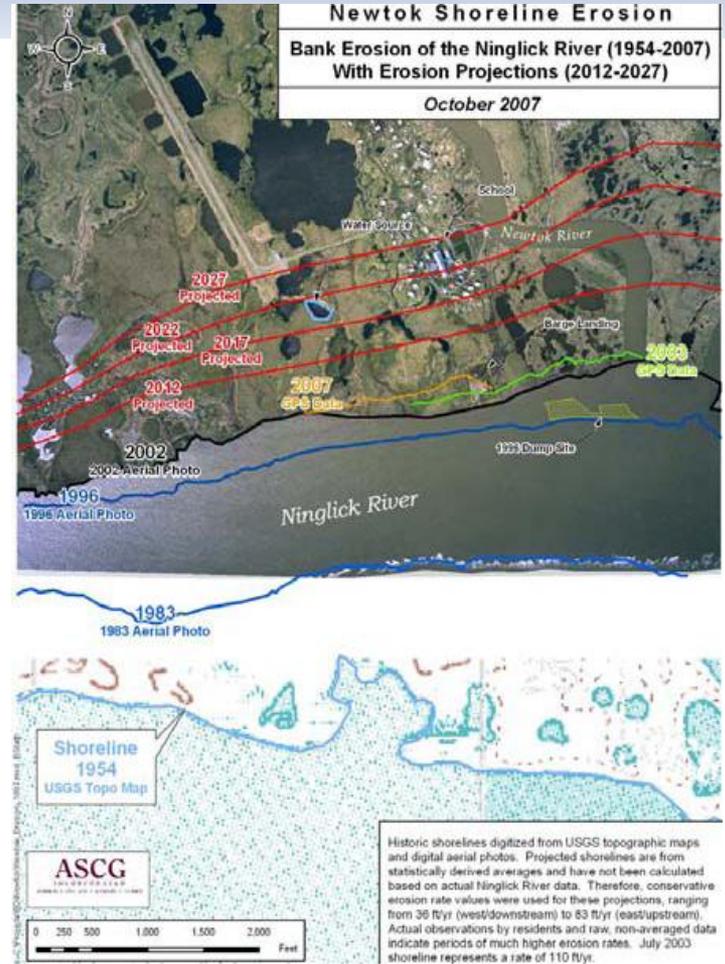


- Shoreline Protection
- Relocation
- Evacuation Routes/Shelters
- Flood Mitigation
- Drainage Improvements
- Permafrost Protection





# Newtok Relocation Example





# ADOT/PF's Involvement

- **Designed and constructed new barge landing facility (2009), partially funded by EDA grant**
- **Worked cooperatively with the USACE on road design and permitting (State funded)**
- **ADOT/PF purchased 4900CY of road construction materials (Newtok Traditional Council also contributed funding)**
- **US Military (IRT) personnel constructed a 14 foot wide, 1500 foot road this summer with ADOT/PF oversight**
- **Overseeing the design and construction of the evacuation shelter (2011-2013) funded by State grant to Newtok**
- **Working with IRT on possible quarry site development**





# Thank You - Questions

