Climate Change in Alaska

“Building Resiliency into our Future”

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Infrastructure and Erosion Control Project

- 600K Funding Authorized FY09 – Direct recommendation from the IAW
- Funding allows DOT&PF to begin early coordination with the effected communities, as well as State and Federal Agencies.
- Allows DOT&PF to collect available engineering data that may be useful for future investigations.
- Also allows for preliminary engineering investigations to help accelerate project development
- 500K requested in FY10 to continue phased approach and project coordination (IAW)
Mertarvik Barge Facility

- Scope of Project: Construct 30,000 foot staging area with 16 foot wide boat ramp at Mertarvik
- Design: Nearing completion
- Construction: estimated $1.8M
- Total Project Cost: $2.8 million (includes $800K from Economic Development Administration - remainder General Funds)
- Schedule
  - Advertise February 25, 2009
  - Bid Opening March 27, 2009
  - Completion: July 15, 2009
- $2M requested in FY10 (IAW) for materials and materials site development
Mertarvik Barge Facility

Barge Landing Site

Barge Landing

Relocated Buildings
Kivalina
Kivalina Airport Shoreline Protection (FEMA)

- Placed supersacks on the coastal side of airport property to protect the taxiway after sea storm
- Used local labor and materials
- Developing a more permanent
Kivalina Airport - Permanent Repairs

- Currently in Design
- FEMA funded
- Scope: Repair 725 Lineal feet of Taxiway Safety Area, Construct Rip Rap Revetment for future protection. (9,000 CY of Rip Rap to be barged in)
- Status: Requires additional funding – original estimate in 2005 was $1.2M
- Current Estimate is $5.3M for Construction
- Scheduled to Construct in 2009 if FEMA approves
Koyukuk Airport Improvements

- Airport project completed in 2006
- Lengthened and widened runway.
- Raised grade above the 100 year flood levels
- Total Cost: $9.2 M
Koyukuk Airport

Completed runway above flood levels in 2006
Koyukuk Evacuation Road

- 800K requested in FY10 Budget
- Project Scope:
  - Reconnaissance Study
  - Preliminary Engineering
  - Environmental Studies
  - Final Design of evacuation road
Shaktoolik Airport Emergency Repairs

- Debris removal after the 2005 Fall Storm
- Completed shortly after the storm by Local M&O forces
Shaktoolik Airport Permanent Repairs

- FEMA funded project
- Completed in 2008
- Repaired damage to the Runway Safety Area and Nav-Aids.
Shaktoolik Landfill Road

- FHWA Funded project
- Completed in 2008
- Constructed drainage improvements to existing road through town, and a new section of road to a future landfill site.
Shishmaref Projects

• Several projects in planning/design
• 1 FAA funded Master Plan Project
• 1 FHWA funded Reconnaissance Study
  - Scope: Evaluate the possibilities of a road from Ear Mountain to a barge site on the coast.
Shishmaref Relocation Road

Reconnaissance Study

• Field work started in 2007
• Reconnaissance studies are broad in scope – provide overview of challenges and issues
• Major issue at Shishmaref is materials costs
• Scope: Evaluate the possibilities of a road from Ear Mountain to a barge site on the coast.
• Working in cooperation with the National Park Service
• Potential road alignments currently being evaluated
Unalakleet Beach Road Permanent Repairs

- FHWA funded (Emergency Repairs)
- Repaired the embankment and constructed a seawall using local materials
- 1073 lineal feet of shore protection along Beach Road
- Project Cost: $2.2 Million
Kotzebue Shore Avenue (FHWA)

- FHWA funded project to construct approximately 4400 lineal feet of sheet pile erosion protection
- Design complete
Hopper Bay Airport Relocation

- Coastal erosion has plagued the airport in recent years, likely exacerbated by climate change and marginal sea ice conditions.
- Various erosion protection measures have been attempted.
- Currently an airport relocation project is scheduled for FFY11 or FFY12 (under design).
Additional Community Projects

- Chignak Lagoon – Airport Relocation
- Emmonak - Clinic Rd Reconstruction (2009)
- Little Diomede – Helipad Improvements (FAA)
- Gambell – Evacuation Rd (FHWA)
- Hughes – Studying Flooding (FAA)
- Nome - FHWA funded project to repair Nome Council Road – Mostly Complete
- Point Hope - Evacuation Road Rehab/Extension
- Nunam Iqua – Replace Boardwalks w/road
Thank You

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