

State of Alaska Community Resilience Efforts for Coastal Erosion Threatened Communities



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Policy

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Alaska Climate Change Impact Mitigation Program

Assists communities with development of planned approach to shoreline protection, relocation planning



Hazard Impact Assessments

§ Provides community baseline hazards assessment and recommendations for resilience



Community Adaptation Planning Grants

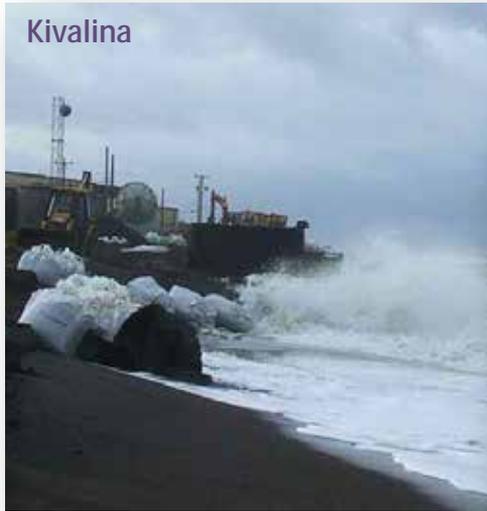
- § Based on recommended actions of Hazard Impact Assessments
- § Brings community to “next stage” in disaster resilience



Alaska Community Coastal Protection Project

Developing strategies for Kivalina, Shaktoolik and Shishmaref

Kivalina



Shishmaref



Photo: Tony Weyliouanna

Shaktoolik



DECLARED DISASTER ASSISTANCE

Infrastructure Reconstruction/Rebuilding

2008 Tanana Basin flooding – 8 projects

2009 Spring Floods

2009 October Kodiak Storms – 10 projects

2012 West Coast Storm – 19 projects

2012 September Interior and Southcentral Storms – 38 projects

2013 Spring Floods – 21 projects

2013 November Southwest Alaska Storms – 17 projects

Total \$88,366,760.91

Individual Assistance Private Property

2009 Yukon Floods (Eagle) – 13 homes rebuilt

2011 Crooked Creek Floods – 9 homes rebuilt

2013 Spring Floods (Galena) – 11 homes rebuilt

DMVA EMERGENCY MANAGEMENT

COMMUNITY PREPAREDNESS

- **Outreach** - Inform communities of resources available to promote community preparedness.
- **Training** - Provide local managers and other officials with the knowledge to educated choices during disaster events.
- **Exercise** - to reinforce training, discover gaps in preparedness, and improve community resiliency.

DMVA EMERGENCY MANAGEMENT COMMUNITY MITIGATION

- Provide assistance and support for Local Hazard Mitigation Plan development, most recently for Shaktoolik, Shishmaref, Kivalina, Newtok, North Slope Borough, Teller, Nome, and Nunam Iqua.
- Assisted in developing grant applications for \$3.5M for the Newtok Community Relocation Effort
- Developing Alaska's HUD National Disaster Resilience Competition applications which include regional disaster-impacted communities

Newtok



Photo: Lisa Charles

Coastal erosion, thawing permafrost and flooding threaten the existence of the village. The village school is expected to be lost to erosion by 2017.

The community is actively relocating to a new village site on Nelson Island. The State has applied for a grant to relocate 12 homes and buy 5 homes in 2016. DCRA helped Newtok develop a comprehensive resiliency strategy for the community's relocation to Mertarvik.



Photo: Sally Russell Cox, DCRA

Kivalina

Coastal erosion and ice damage have forced Kivalina to explore options related to safety, mitigation and relocation. In 2007 residents evacuated to the Red Dog Mine and Kotzebue before a severe storm.



Kivalina is pursuing development of an evacuation road to a new school site 7 miles away. DCRA is helping Kivalina develop a resiliency strategy.



Photo: Sally Russell Cox, DCRA

Shaktoolik



Photo: Gloria Andrew

Shaktoolik is vulnerable to coastal storms, storm surges and erosion. Higher ground is 13 miles away, but there is no way to get there during a storm.

Shaktoolik is on the mainland and has decided to “stay and defend”. DCRA is helping Shaktoolik develop a resiliency strategy.



Photo: Sally Russell Cox, DCRA

Shishmaref

Shishmaref is being affected by coastal erosion and a reduction of winter ice, leaving the community more susceptible to storms that have further increased erosion.



Photo: Kawerak



Photo: Sally Russell Cox, DCRA

Shishmaref is selecting a site to relocate or expand nearby. DCRA is helping Shishmaref develop a resiliency strategy.

Alaska Climate Change Sub-Cabinet – Immediate Action Work Group (2009)

1. Establish a system to coordinate current and planned community infrastructure.
2. Formalize state agency cooperation on relocation projects.
3. Assist communities with comprehensive planning and strategy on relocation.
4. The State of Alaska is tasked to achieve these goals.

Denali Commission

- The Denali Commission can act as a counterpart to the State of Alaska for federal agency coordination.
- Created in 1998 to assist in building and developing basic infrastructure for economically distressed, rural communities and villages in Alaska.

Denali Commission Coastal Erosion and Community Planning Projects

- After Disaster Declaration in 2006, the commission coordinated designs and completed an evacuation road in Shaktoolik from the coast to higher ground.
- Also in 2008 the commission coordinated to design a preliminary evacuation road from Kivalina to the mainland.
- Similarly, the commission has coordinated 18 community planning projects, totaling up to \$460,000 in grant money

Questions?

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