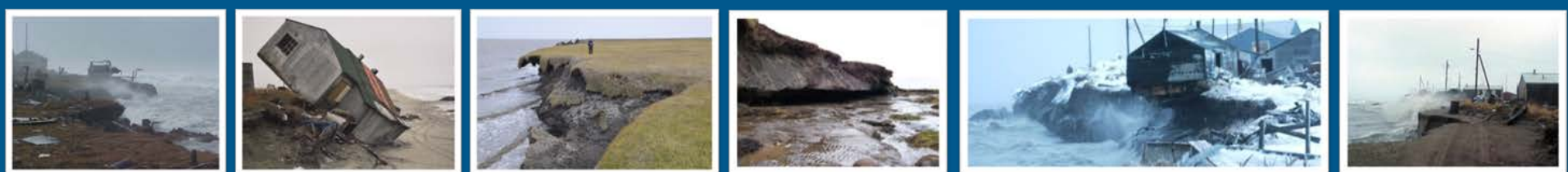


Risk Mapping, Assessment and Planning (Risk MAP)

Assisting Imminently-Threatened Alaska Native Villages



Sally Russell Cox, Alaska Division of Community and Regional Affairs
Community Resilience Working Group
June 13, 2017

Adaptation Responses to Climate-Related Hazards



Protection-in-Place

- Shoreline protection measures and other controls to prevent/minimize the effects of coastal or riverine threats
- Allow the community to remain in its current location



Migration

- Gradually moving property and development away from hazard-prone areas
- Community must have suitable, developable land nearby



Relocation

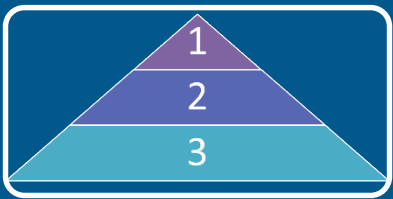
- Moving entire community to entirely different location not vulnerable to natural hazards
- Usually considered only after determination that other methods of dealing with hazard threats would not be feasible



Community Adaptation Decision-Making Needs

- Assistance to imperiled communities should be based on fair and defensible methodology which prioritizes communities by level of threat and need
- Community must be key player in decision-making process
- Imperiled communities (and agencies assisting them) need quantifiable data from which to make informed decisions
- A coordinated, interdisciplinary approach to address community threats is essential to increasing community resilience





Prioritization

Takes place before communities are selected for Risk MAP studies. States are asked to develop quantitative approach to prioritize communities to determine which communities FEMA will study.

- Develop list of imperiled communities based on 2009 Government Accountability Office (GAO) list of 31 Imminently-Threatened Communities
- Use Denali Commission's ***Statewide Threat Assessment Project*** to develop Alaska Risk MAP prioritization methodology.
- Draft prioritization matrix presented to stakeholders at Bureau of Indian Affairs' Providers Conference held in Anchorage in December 2017.





Stakeholder Engagement

Partnership and collaboration are critical to the Risk MAP process.

- Important because FEMA doesn't directly address many of the hazards (or other resilience needs) impacting Alaska Native villages:
 - Erosion
 - Permafrost Degradation
 - Food security
 - Human health impacts
 - Changing weather conditions
 - Community capacity

Establishing these relationships with the community during Risk MAP process can lead to formation of interagency working groups (village planning groups) for later efforts





Discovery

Discovery is the first part of the Risk MAP process when the State, FEMA, community and other stakeholders work together to collect data regarding local hazard risks.

Discovery Interview

- Teleconference with stakeholders to share current information, current and past projects, historical knowledge, and to identify who should attend Discovery meeting in community

Discovery Meeting

- Meeting held to gather information on community's perspective about local natural hazards and risk.
- Information used to prioritize risk, vulnerability assessments and mitigation planning assistance



Discovery

Risk MAP Discovery approach modified for Alaska Native villages:

- Interpreter for meetings in villages where English is the second language
- Culturally-appropriate ways to present information
 - Community gathering/potluck
 - Reports translated into Native Language and presented in useful format to community

Discovery Report

I. Executive Summary

II. Discovery and Risk MAP

III. Watershed Description

IV. Project Description and Methodology

V. Risk MAP Needs

Risk MAP

VI. Conclusion





Post-Discovery Data Collection and Analysis

- A collaborative effort between a number of stakeholders in order to meet community's resilience needs:
 - Incorporate local/traditional knowledge with science
 - Incorporate local observation as part of the process. A number of community-based monitoring efforts are taking place in Alaska; see: <http://www.aos.org/alaska-community-based-monitoring/what-are-we-observing/>



Resilience Meeting

- Provides community with opportunity to meet with subject matter experts to discuss how Risk MAP information, tools and products can inform future planning efforts, reduce risk, and increase local resistance to disaster
- Decision on next-steps to implement resilience actions is key to this meeting
- Culturally-appropriate ways to present information
 - Community gathering/potluck
 - Reports translated into Native Language and presented in useful format to community





Next Steps

Risk MAP
Tools and
Products can
inform/lead
to:

- Hazard Mitigation Plan Update

- Climate Adaptation Plan

- Mitigation/Adaptation Projects

- Local Land Use Plan

- Community Comprehensive Plan

- Protect-in-Place/Relocation Analysis

- Village Planning Group