

ExhibitESoundnessofApproach

State of Alaska

ExhibitESoundnessofApproach.pdf

Exhibit E: Soundness of Approach

Consultation

The SIWG conducted a stakeholder summit on February 11, 2014 in Anchorage, AK where it received input from local governments from eligible regions and impacted communities. The meeting was conducted via teleconference as well (Dropbox: AK-149). The SIWG is collaborating with regional and community leaders as stakeholders on developing this application. Stakeholders include the Newtok Planning Group, the Mayor of Fort Yukon, City Managers of Kotlik and Alakanuk, and the Mayor of Galena. During the summit, stakeholders were provided a briefing on the NDRC, and asked to provide feedback on relevant community impacts, distress conditions, and unmet needs. Through regular consultation with stakeholders, the SIWG hopes to capture the complexities of their communities and gain assistance in tailoring engagement strategies to meet their needs. We asked for their feedback through a survey of questions and matrixes (Dropbox: AK-150). Our stakeholders will engage their whole community and empower local action to help the SIWG plan for and meet the actual needs of the community or region and strengthen local capacity to deal with threats and hazards. Community engagement will lead to deeper understanding of the unique and diverse needs of local populations. Through our stakeholders we will foster collective learning from the communities' experiences. Stakeholders will have direct input for community (resiliency project prioritization and development). See Exhibit C, page 9-10 on stakeholder engagement.

This discussion with stakeholders reinforced SIWG awareness that some communities have been multiply impacted by not only eligible federal disasters, but local and statewide events and issues. Impacted communities suffer from distressed conditions and lack of local government capacity.

In the disaster response phase, DHS&EM and DEC engaged with impacted communities on hazardous materials and fuel spill cleanup. Distinct from disaster operations, DEC has engaged with

affected communities with particular attention to potential sources of contamination, such as wastewater treatment facilities or Brownfields.

Input from stakeholders, project partners, and/or citizens have focused the State's proposal by identifying and defining impacts, distress, and unmet needs. Input has been provided on potential resilient projects and community conditions for project implementation.

Idea(s) or Concept(s)

Our approach is regional based on tribal areas. Following the NPG model described in Exhibit C, pages 6-7, the SIWG, partners and stakeholders will form a multiagency planning group. This group will assess regional and local risks associated with vulnerabilities and overall resiliency for eligible project communities, and develop a comprehensive resiliency plan. Comprehensive strategic planning will synchronize and integrate ongoing programmatic efforts such as elevation, relocation and embankment stabilization to improve resiliency from flooding and decrease risk from erosion. It will also encompass an all-hazards approach. Planning will take into account stakeholders' interest in obtaining effective basic water/sewer services; and gaining energy efficient, seismically-resistant characteristics in residential, public and commercial buildings in the course of resiliency projects. It will also consider reducing vulnerability and gaining efficiency of water/sewer and power systems through relocation and/or centralization of community services such as sewage lagoons, power generation, water treatment, and fuel storage to reduce impacts of flooding and permafrost degradation. The group will leverage the DEC Alaska Water-Sewer Challenge (<http://dec.alaska.gov/water/watersewerchallenge/index.html>) and the Disaster Housing Matrix (see Exhibit C, page 10) to test new technology and develop more resilient infrastructure and housing in remote areas. The SIWG will leverage the work of interagency partners, regional tribal groups, and other non-profits to educate communities on disaster preparedness, and improve local capacity to identify risks associated with climate change.

The approach the collective group has developed serves as a baseline action plan. The approach will adapt as needed through application, planning, project development and construction phase through stakeholder feedback. This approach has proven to be effective through past and ongoing projects between local, regional, state and federal agencies. It is optimal because it also flexible and develops and adjusts to meet project and/or program goals.

The State of Alaska has been committed to resilience for decades. Its native people have been committed to resilience for centuries in their cultural practices of conservation and the dependence of their subsistence lifestyle on the natural environment. Resilience activities undertaken by the State include the 2011 State law to achieve 50% of electricity capacity generated by renewables by 2025; a Renewable Energy Atlas (Dropbox: AK-151) documenting the potential for biomass, geothermal, wind, solar and other power in Alaska; a State-operated grant program for innovative renewable energy projects; consumer energy efficiency incentives for home weatherization, energy rebate programs and implementation and enforcement of state energy code for residential construction through state housing finance agency; research into new technologies through University of Alaska's Center for Energy and Power, Cold Climate Housing Research Center, and Alaska Energy Authority; and the Alaska Climate Change Sub-Cabinet produced four reports (2007-2010) on Adaptation, Mitigation, Immediate Action and Research Needs to address Climate change impacts on over 160 communities in Alaska.

Constant involvement of stakeholders; long-term monitoring of community health and social vulnerabilities, attention to wildlife migration patterns, coastal and riverine erosion, permafrost degradation, and other metrics that track changes in the environment; and institutionalizing the approach in assessing the resiliency effects of partner-stakeholder project development will ensure ideas are feasible and effective.

Our approach is designed to improve long-term resilience of Alaska communities. It provides a framework for assessing future risks, and helps communities plan and implement disaster recovery with

the goal of permanent resiliency. It is also scalable. If a community's risks are such that permanent resiliency is unreachable due to environmental factors or its historical ties to the area, this approach will help improve the economic, cultural and structural resiliency of their community (Dropbox: AK-162).

Alaska's target areas have "high" measurements on the University of Carolina's Social Vulnerability Index (http://webra.cas.sc.edu/hvri/products/sovi_32.aspx). They are predominately tribal, experience high unemployment rates, public health issues and overcrowded living conditions. Improving the resiliency of a community through better housing and building construction standards provides co-benefits such as improving energy efficiency (reduces household living expenses); and indoor air quality (decreases respiratory issues in children and the elderly). Reducing stresses and shocks on people from impending threats of climate change on their traditional way of life reduce social problems (domestic violence, suicide, scholastic performance). Improved resilience also improves the climate for private business and government investment and therefore employment and other economic development. Per HUD 2991 (Attachment C), these activities are consistent with Alaska's HCD.

Our approach is based on integration of cross-disciplinary partners and stakeholders including disaster response, mitigation, environmental, community planning and housing, etc. It uses technical experts to examine a range of interconnected traditional and innovative solutions. Through regional and stakeholder involvement, it prioritizes tribal community desires to maintain and supplement traditional methods of subsistence with a cash economy; improve individual health outcomes, unemployment, and social issues related to overcrowding; and decrease crime and uncertainty.

Through consultation with stakeholders, residents, businesses and community leaders in each area, the SIWG will engage communities to prioritize their resilience actions based on risk analysis and local priorities. Our proposal is based on engaging community stakeholders about climate change impacts and determining a pathway to resilience based on science and the traditional knowledge.

The two target areas are adjacent in the unincorporated areas of Western and Interior Alaska. They are coastal and riverine geographic areas. Positive benefits include integration of ideas tested in one area into another, through appropriate modification; and cross-community discussions on outcomes. New research, technologies and methodologies will have statewide benefit. Improved resilience in one area could cause migration from less resilient areas and serve as support services in disaster response. This will prevent displacement to urbanized areas, where people may encounter socialization issues.

Regionalization of sectors is commonplace in rural Alaska due to the lack of economies of scale associated with small communities. Transportation is by barge or plane. These sectors are dependent on fuel prices to deliver goods and services. As costs in the transportation and energy sectors change, so do the costs of goods in and services in local communities, region wide. As energy, goods and services prices change so does the affordability of housing and infrastructure development. Our approach includes regional stakeholders so that issues associated with regionalization are not overlooked.

The partner agencies in this application represent the major state agencies involved in disaster preparedness, response and recovery, community planning and capacity development and infrastructure and environmental planning. We have already identified other organizations that will need to participate in order to fully address unmet needs and implement a statewide framework for resiliency. We have already approached many other organizations which are very supportive of this application and expect to get formal working agreements during the Phase 2. These organizations represent transportation, alternative energy development, health and social services; cultural resilience; and housing and infrastructure design. Lack of communication with our partners and stakeholders during implementation will be the only barrier to addressing targeted vulnerabilities. This application is prepared by the State of Alaska and regional partners. There are numerous mechanisms such as the Sustainable Community Initiative; NPG; the Final Report of the State of Alaska Climate Change Sub-Cabinet; Kawerak, AVCP and TCC regional tribal non-profits, the Alaska Chapter of the American Planning Association Resilient

Communities Committee, and State Hazard Mitigation Advisory Committee which already support resiliency approaches.

Our approach is based on optimizing economic, physical and cultural resiliency. Short and long term approaches only differ in the magnitude of the change. Our approach is based on collection of scientific and cultural data, coordination of efforts by stakeholders, development of collaborative projects and policies. These actions filter response, recovery and development projects through the lens of resiliency, and leverage the work of all organizations. This results in coordinated delivery of vital services that enables endangered communities and traditional culture to adapt in the face of climate change. Climate change is affecting every part of the Alaskan way of life from physical infrastructure to health, food supplies, and the economy. Our approach to resilience looks at all these risks and the relationship between them, when evaluating appropriate adaption and mitigation strategies.

Emmonak, Fort Yukon and Galena in the two tribal areas participate in the NFIP. None participate in the Community Rating System. A key issue in Alaska is that most imperiled communities do not have access to federally-funded flood insurance because they don't have the ability to adopt and enforce minimum floodplain management requirements. However, Alaska's approach will incorporate education and outreach of best management principles for floodplain management development to insure that communities who don't participate in the NFIP understand the benefits of using sound development practices.

A report from the Adaptation Advisory Group from the Sub-Cabinet on Climate Change (http://www.climatechange.alaska.gov/aag/docs/aag_ES_27Jan10.pdf) outlines the State of Alaska's Climate Change Strategy. The group outlined the state's recipe for success on addressing climate change.