

**DEPARTMENT OF THE ARMY
UNITED STATES ARMY CORPS OF ENGINEERS**

**STATEMENT OF
BRIGADIER GENERAL JOHN W. PEABODY
DIVISION ENGINEER, PACIFIC OCEAN DIVISION**

**BEFORE THE AD HOC SUBCOMMITTEE ON DISASTER RECOVERY
COMMITTEE ON HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS
UNITED STATES SENATE**

**ON
THE STATE AND FEDERAL RESPONSE TO STORM DAMAGE AND EROSION IN
ALASKA'S COASTAL VILLAGES**

OCTOBER 11, 2007

INTRODUCTION

Madam Chairman distinguished members of the committee, thank you for the opportunity to appear before you today to discuss coastal storm damage and erosion issues in Alaska.

I am Brigadier General John Peabody, Commander of U.S. Army Corps of Engineers' Pacific Ocean Division. I will provide you with a brief overview of the Pacific Ocean Division, a review of our Corps of Engineers' erosion authorities and programs, and highlights of the challenges regarding coastal erosion affecting Alaskan communities.

PACIFIC OCEAN DIVISION

The Pacific Ocean Division is headquartered in Honolulu, Hawaii. We have four district offices located in Hawaii, Alaska, Japan, and South Korea. All of our districts have important military missions. In addition, the Honolulu and Alaska Districts have a Civil Works Mission that provides for water resources development and restoration, primarily in the areas of commercial navigation, flood and coastal storm damage reduction risks, and ecosystem restoration.

It is through our Alaska District's Civil Works program that we are involved in addressing erosion problems that affect Alaskan communities.

CORPS OF ENGINEERS AUTHORITIES

The Corps of Engineers (Corps) has several Civil Works authorities to address flooding and erosion problems. They include specific Congressional authorizations, the Continuing Authorities Program, the Planning Assistance to States Program, the Tribal Partnership Program, the Flood Control and Coastal Emergencies authority, and Alaska specific authorizations such as Section 117 (P.L. 108-447) of the Fiscal Year 2005 Consolidated Appropriations Act relating to Alaska flood, erosion and ice damage. Each of these authorities has different implementing rules and limitations.

In addressing erosion problems, the Corps works closely with local, state, Federal, tribal, and private interests to understand and incorporate the concerns represented by these various stakeholders. The Corps weighs the concerns, balances the needs, and examines the risks, costs and benefits to determine federal interest and to make technically, environmentally, socially, and economically sound risk-informed decisions. I would like to outline each of the authorities related to coastal erosion and what we have accomplished under them.

Specifically Authorized Studies and Projects

Specifically authorized studies may be initiated as provided by the Rivers and Harbors in Alaska Study Resolution, adopted by the U.S. House of Representatives Committee

on Public Works on December 2, 1970. Construction of a project studied under this authority does, however, require specific Congressional construction authorization. The non-Federal cost sharing requirements are 50% for feasibility studies, 25% for preconstruction engineering and design, and 35% for construction of erosion projects. Additionally, studies and projects may also be directly authorized by Congress with specific implementing language.

The Corps has constructed five Congressionally authorized projects at Bethel, Galena, Homer Spit, Dillingham, and Talkeetna and is currently working on five additional studies and projects at Barrow, Matanuska River, McGrath, Bethel, and Dillingham.

Continuing Authorities Program

The Continuing Authorities Program authorizes the Corps of Engineers to plan, design, and construct erosion projects without additional and specific Congressional authorization. The Continuing Authorities Program is funded nationwide and is subject to specific limits on allowable Federal expenditures. The applicable program authorities that address erosion include the following.

- Section 14 of the Flood Control Act of 1946, as amended -- This authorizes emergency stream bank and shoreline erosion protection for public facilities subject to a Federal limit of \$1,000,000 per project and \$15,000,000 nationwide per year. The non-Federal cost sharing requirement is 35%. The Alaska District has constructed five projects under this authority at Shishmaref, Emmonak, Deering, Metlakatla, and Bethel and is working on four on-going studies at Deering, Kwethluk, Seward, and Cheforak.
- Section 103 of the River and Harbors Act of 1962, as amended -- This authorizes shore protection for publicly owned property from hurricane and storm damage, subject to a Federal limit of \$3,000,000 per project and \$30,000,000 nationwide per year. The non-Federal cost sharing requirement is 35%. The Corps has not constructed any projects under this authority in Alaska and currently has two on-going studies at Nome and Unalakleet.
- Section 111 of the River and Harbor Act of 1968, as amended -- This authorizes mitigation of shoreline erosion damage caused by Federal navigation projects subject to a Federal limit of \$5,000,000. The non-Federal cost sharing requirement is at the same proportion as the associated Federal navigation project. The Corps has not constructed any projects under this authority in Alaska and has no on-going work.

Planning Assistance to States

The Corps' Planning Assistance to States program (Section 22, Water Resources Development Act 1974, PL 93-251) allows the Corps to assist states in the preparation of comprehensive plans for the development, utilization, and conservation of water and related resources of drainage basins. This may include consideration of erosion problems. There is no construction authority associated with this program. Annual

Federal funding is limited to \$500,000 per state or tribe. The non-Federal cost sharing requirement is 50%. The Planning Assistance to States program has been used to provide relocation planning assistance to the villages of Kivalina and Newtok.

Other Corps of Engineers Authorities

Other Corps of Engineers' authorities that exist include the following.

- Technical Assistance – Section 55, Water Resources Development Act of 1974 (PL 93-251). This authority allows the Secretary of the Army, acting through the Chief of Engineers, to provide technical and engineering assistance to non-Federal public interests in developing structural and non-structural methods of preventing damages attributable to shore and stream bank erosion. Section 55 provides no construction authority. Non-Federal cost sharing is not required. The Corps is currently working on Kenai River Bluff under this authority.
- Tribal Partnership Program – Section 203, Water Resources Development Act of 2000 (PL 106-541). This program authorizes feasibility studies of water resource projects that will “substantially benefit Indian tribes and that are located primarily within Indian country or in proximity to Alaska Native villages.” Section 203 has a \$5,000,000 annual program limit and allows no more than \$1,000,000 for one Indian tribe. The program provides no construction authority. The non-Federal cost sharing requirement is 50% for feasibility studies. However, under this authority and at the direction of Congress, we are currently conducting, at full Federal cost, the Alaska Baseline Erosion Study, Alaska Coastal Erosion Data Collection, and providing relocation technical assistance to the village of Newtok.
- Flood Control and Coastal Emergencies– Under the Flood Control and Coastal Emergencies Advance Measures (Public Law 84-99), assistance may be provided to prevent loss of life and catastrophic property damage when there is an imminent threat of unusual flooding. Under this authority, the Corps provided assistance to Kivalina during the fall storms of 2006 and more recently, for the August and September 2007 storms.

Alaska Specific Coastal Erosion Authorities

A recent authority that has been useful in addressing Alaska coastal erosion problems is Section 117 of the Fiscal Year 2005 Consolidated Appropriations Act (P.L. 108-447) which authorized the Secretary of the Army “*to carry out, at full Federal expense, structural and non-structural projects for storm damage prevention and reduction, coastal erosion, and ice and glacial damage in Alaska, including relocation of affected communities and construction of replacement facilities.*”

The Corps of Engineers has demonstrated success with the Section 117 authority as implemented under the Alaska Coastal Erosion program. In June 2007, with funding

provided by Congress, the Alaska District awarded a \$6,500,000 construction contract to build approximately 625 feet of rock revetment to protect infrastructure at Shishmaref. This interim erosion protection at Shishmaref has an estimated project life of approximately 15 years, which will allow the community sufficient time to develop and implement alternative plans. An additional 2,500 feet at an estimated cost of \$25,000,000 is required to complete the interim protection. Additionally, the District executed a Project Cooperation Agreement with the City of Unalakleet in January 2007 for erosion protection, subject to the availability of funds. Finally, the District is also currently negotiating a Project Cooperation Agreement with the City of Kivalina for erosion protection.

In addition, under the Alaska Tribal Partnership Program, Alaska District is currently preparing the Alaska Baseline Erosion Study which will provide a systems approach for coordinating, planning, and providing an overall assessment to help prioritize shoreline erosion management efforts in Alaska. To date, the study has identified 165 communities that are experiencing erosion problems. Alaska District has also initiated the Alaska Erosion Data Collection study under this program.

CHALLENGES

As noted in the June 2004 General Accounting Office (GAO) report on Alaska Native Villages affected by Flooding and Erosion, it is often difficult for the majority of Alaska's small and remote communities to finance and meet the multiple criteria required for Federal participation in implementing a solution. The remoteness of many of the areas, severe weather conditions, and the subsistence economies of the communities are major contributing factors.

Perhaps the biggest challenges are the costs and risks associated with implementing erosion control solutions in these often remote communities. These include high mobilization costs, limited construction season, and the difficulty of transporting and obtaining adequate rock and materials. In April 2006, the Corps completed the Alaska Village Erosion Technical Analysis Report which estimated costs for providing erosion protection for seven villages. In addition, in Alaska we lack adequate scientific data on the factors that contribute to coastal erosion, such as wave, wind, tide, currents, storm surge, and ice pack. The Alaska Erosion Data Collection study should help provide some of this important information.

The risks associated with the coastal erosion challenges in Alaska are great. Risk considerations include determining what level of protection from erosion and flooding are acceptable, deciding whether to relocate or remain, and balancing the costs, social, cultural, and environmental impacts.

CONCLUSION

The Corps of Engineers has the technical expertise to address solutions based on a systems approach and to communicate and assist with risk informed decision making associated with the complex storm damage and erosion problems in Alaska's coastal villages. We are proud to work in collaboration with the many Federal, State, and local entities to assist in recommending and implementing solutions for the coastal erosion challenges faced by the Alaskan communities.

I am honored to appear before the committee and thank you for the opportunity. I look forward to any questions you may have.