



July 27, 2007

INFORMATION PAPER

SUBJECT: Status of Protection/Intervention Actions at High Risk Communities

1. Purpose: To provide information on Corps of Engineers Stream-bank and Shore Protection Activities

2. General Authorities: The Corps of Engineers (Corps) is authorized to provide stream-bank and shore protection and coastal storm damage reduction under several authorities. Under the Continuing Authorities Program the Corps can provide emergency stream-bank and shore protection through Section 14 of the 1946 Flood Control Act, and coastal storm damage reduction under Section 103 of the 1962 Rivers and Harbors Act. Congressional authorization of coastal storm damage reduction projects is provided by the 1946 Shore Protection Act. In addition, the Corps can provide technical assistance to Native American Tribes under the Tribal Partnership Program authorized by Section 203 of the Water Resources Development Act of 2000.

3. Alaska Specific Authorities:

- Rivers and Harbors in Alaska study resolution adopted by the U.S. House of Representatives Committee on Public Works on December 2, 1970 provides authority for study of storm damage reduction measures for Barrow, Alaska. This is a study authority only.
- Section 116 of Public Law (PL) 99-190, enacted in 1986, directed the Corps to accomplish emergency bank stabilization work at Bethel, Dillingham, and Galena, Alaska, at full Federal cost.
- Alaska Villages Erosion Technical Assistance (AVETA). AVETA was authorized as a cost shared Tribal Partnership study in the Consolidated Appropriations Resolution of 2003. Section 112 of the Conference Report Energy and Water Development Appropriations Act of 2004 revised funding for this study as 100% Federal. The legislation directed the Corps to investigate and prepare a report for Congress on the impacts of coastal erosion due to continued climate change and other factors for the communities of Bethel, Dillingham, Shishmaref, Kaktovik, Kivalina, Unalakleet, and Newtok. This is a study authority only.
- Alaska Baseline Erosion Assessment. Authorized by the FY 2005 Consolidated Appropriations Conference Report, the Corps was directed to coordinate and plan the appropriate responses and assistance for Alaska villages in the most need and provide an overall assessment on the priority of which villages should receive assistance. This work is conducted under the technical studies provision of the Tribal Partnership Program but is 100% Federally funded. The authorization also included feasibility studies for Kivalina, Newtok, Shishmaref, and Unalakleet, and provided for general studies of the Long-Term Alaska Wind, Wave and Surge Climatology study, and the Kaktovik Cultural study. This is a study authority only.
- Section 117 of the FY 2005 Consolidated Appropriations Act authorized the Corps 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. This is a construction authority.

- Alaska Coastal Erosion (ACE). The Energy and Water Appropriation Bill of 2006 authorized ACE projects for Kivalina, Newtok, Shishmaref, Koyukuk, Barrow, Kaktovik, Point Hope, Unalakleet, and Bethel, and specified that Section 117 would apply to these projects. HQUSACE implementation guidance for ACE projects included preparation of an expedited decision document modeled on the Section 14 report, preparation of construction documents, and project construction.

4. Status of Current Erosion Related Actions:

- The draft Feasibility Study for storm damage reduction at Barrow is in-progress. An Alternate Formulation Briefing (AFB) is scheduled for September 2007.
- Emergency bank stabilization work at Bethel, Dillingham, and Galena directed under Section 116 of Public Law (PL) 99-190 is in-progress. The work has been completed at Galena, and construction has started at Bethel. The draft Feasibility Study for bank protection at Dillingham is scheduled to be transmitted to Pacific Ocean Division (POD) in September 2007.
- AVETA Report – submitted to Congress April 2006, no further action has been directed at this time.
- Alaska Baseline Erosion Assessment – This study will review the erosion condition at 162 villages and rank the erosion condition and urgency of corrective action. Funding was received in FY 2007 to continue the effort. Mapping is currently in-progress, and projected erosion will be developed for 20 communities. FY 2007 field investigations will be conducted at 12 communities to gather detailed erosion related information. An OPM sanctioned questionnaire will be sent to the remaining 150 villages to obtain initial erosion data. One product to be developed this FY are generic temporary erosion control designs that a community would be able to construct on their own. The study is a long term effort requiring 3 to 5 years to complete provided that funding becomes available. A list of communities identifying type of activity is attached as enclosure 1.
- There are several actions in-progress under the ACE/Section 117 authority.
 - Shishmaref – the report recommending construction of 3,000 linear feet of rock revetment was approved by POD on May 18, 2006. The design was completed and a contract has been awarded for construction of approximately 600 linear feet this summer. This revetment will abut structures constructed by others and provide for a continuous line of protection. Funding constraints will require that this project be constructed in phases. In addition to the 117 project, 175 linear feet of rock revetment to protect teacher housing was constructed in FY 2005 under the Section 14 bank stabilization authority.
 - Unalakleet - the report recommending construction of 1,500 linear feet of rock revetment to replace the existing gabion basket structure was approved by POD on July 28, 2006, and the PCA was executed on January 22, 2007. The

construction documents are nearing completion, and this project will be available for a FY 2008 construction if funds are available.

- Kivalina - the report recommending construction of 3,300 linear feet of rock revetment to replace the existing gabion basket structure was approved by POD on June 19, 2007, and the PCA is currently under review at HQUSACE. The final design is scheduled to begin in September 2007. The approved 117 report contained a provision for the Corps to provide sandbags and filter fabric, and some technical assistance during construction, subject to available funds. At this point all available funds are earmarked for the Shishmaref revetment construction. At the request of the community, the Corps has also provided a design for the 900 linear foot long emergency protection structure and a cost estimate for this work.
- Newtok – An analysis performed under the AVETA study determined that there was no cost effective way to provide erosion control at Newtok. On-going encroachment by the Ninglick River has already claimed the community landfill and barge landing site. Fuel deliveries by barge were suspended in the fall of 2006 because of infilling of the Newtok River. Building materials and other goods are no longer being delivered by barge due to loss of the barge landing site. Due to changes in the river configuration, wave action and storm surge can now directly impact the community. The solution to Newtok’s problem is being addressed by the Newtok Traditional Council, and the Newtok Planning Group, a consortium of state (7) and Federal (8) agencies, local and regional governments, and non-profit organizations. The community has selected a new townsite on lands exchanged to Newtok Native Corporation from the U.S. Fish and Wildlife Service by Congress in 2003. Construction has already begun at the site. The Corps has been actively involved in the Newtok Planning Group under the Tribal Partnership program. A report is being prepared under the Section 117 authority and is scheduled to be transmitted to POD for approval this month. The report recommends construction of an emergency shelter at the new townsite to accommodate the local community in the event of a natural disaster. The Corps and the State of Alaska Department of Homeland Security and Emergency Services are assisting the Newtok Traditional Council in preparation of a Hazard Mitigation Grant Program application to elevate residences most at risk due to storm surge flooding, as an interim measure.
- Koyukuk – The 117 decision document is in-progress and submittal to POD is expected in October-November.
- Point Hope – project is not presently funded.
- Kaktovik - project is not presently funded.
- Barrow - project is not presently funded, however, erosion protection studies are being conducted under other authority as described above.
- Bethel - project is not presently funded, however, erosion protection is provided by project constructed under another authority as discussed above.

5. Other Related Actions:

- McGrath – the ASA(CW) has approved preparation of the bank stabilization feasibility study for McGrath under the cost sharing provisions of the 117 authority. The feasibility study has recently been initiated. This is a study authorization only.
- Long-Term Alaska Wind, Wave and Surge Climatology study – This effort is a data collection and analysis which will reduce wave climate data for the western Alaska coastline including the Bering and Chukchi Seas. The Corps' hydraulic laboratory in Vicksburg Mississippi has been tasked with developing a continuous database of wave height, period and direction, surge and water levels based on a 20 year hindcast. The study will also develop the 50 and 100 year storm events. This is a general study funded entirely by the Federal government, and are being conducted as funds become available.
- Kaktovik Cultural Study – This general study is conducted under the Tribal Partnership Program, with 100% Federal funding, and investigates erosion impacts on cultural resources at Kaktovik.

Status of Protection/Intervention Actions at High Risk Communities

Baseline Erosion Assessment Communities	Original Tribal Partnership Community	Alaska Coastal Erosion Community	Comprehensive Assessment Community	Erosion Interview Community
Barrow		X		
Bethel	X	X		
Dillingham	X			
Kaktovik	X	X		
Kivalina	X	X		
Koyukuk		X		
Newtok	X	X		
Point Hope		X		
Shishmaref	X	X		
Unalakleet	X	X		
Akiak			X	
Alakanuk			X	
Aniak			X	
Kalskag (Upper and Lower)			X	
Kipnuk			X	
Kongiganak			X	
Kwethluk			X	
Kwigillingok			X	
Napakiak			X	
Napaskiak			X	
Tuntutuliak			X	
Akhiok				X
Akiachak				X
Alatna				X
Aleknagik				X
Allakaket				X
Ambler				X
Anchor Point				X
Atmautluak				X
Bettles				X
Big Delta				X
Birch Creek				X
Brevig Mission				X
Buckland				X
Butte				X
Cantwell				X
Central				X
Chalkyitsik				X
Chefornak				X
Chevak				X
Chignik				X
Chiniak				X
Chitina				X

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Baseline Erosion Assessment Communities	Original Tribal Partnership Community	Alaska Coastal Erosion Community	Comprehensive Assessment Community	Erosion Interview Community
Chuathbaluk				X
Circle				X
Circle View Estates				X
Clark's Point				X
Coldfoot				X
Copper Center				X
Cordova				X
Council				X
Crooked Creek				X
Deering				X
Delta Junction				X
Diomedea				X
Douglas				X
Eagle				X
Eagle River-Chugiak				X
Eek				X
Egegik				X
Elim				X
Emmonak				X
Evansville				X
Fairbanks				X
False Pass				X
Fort Yukon				X
Fox				X
Gakona				X
Galena				X
Gambell				X
Girdwood				X
Golovin				X
Gustavus				X
Haines				X
Haines Borough (Klehini/Chiklat Rivers)				X
Homer				X
Hooper Bay				X
Hughes				X
Huslia				X
Hyder				X
Igiugig				X
Juneau				X
Kaltag				X
Karluk				X
Kenai				X
Kiana				X

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King Cove				X
King Island				X
Kokhanok				X
Kotlik				X
Kotzebue				X
Koyuk				X
Larsen Bay				X
Levelock				X
Lime Village				X
Manley Hot Springs				X
Mary's Igloo				X
McCarthy				X
McGrath				X
Mekoryuk				X
Metlakatla				X
Nanwalek				X
Nelson Lagoon				X
Nenana				X
New Stuyahok				X
Nightmute				X
Ninilchik				X
Noatak				X
Noorvik				X
Northway				X
Northway Village				X
Nuiqsut				X
Nulato				X
Nunam Iqua a.k.a Sheldon Point				X
Nunapitchuk				X
Old Harbor				X
Ouzinkie				X
Palmer				X
Pedro Bay				X
Pile Bay/Williamsport Road				X
Pilot Point				X
Point Lay				X
Popof Island				X
Port Alsworth				X
Port Graham				X
Port Heiden (Meshaik)				X
Port Lion				X
Portage				X

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Baseline Erosion Assesment Communities	Original Tribal Partnership Community	Alaska Coastal Erosion Community	Comprehensive Assement Community	Erosion Interview Community
Prudhoe Bay				X
Russian Mission				X
Saint Michael				X
Saint Paul				X
Salcha				X
Savoonga				X
Selawik				X
Seward				X
Shageluk				X
Shaktoolik				X
Sitka				X
Skagway				X
Skwentna				X
Soldotna				X
South Naknek				X
Stebbins				X
Susitna				X
Sutton-Alpine				X
Talkeetna				X
Tazlina				X
Teller				X
Togiak				X
Toksook Bay				X
Tununak				X
Ugashik (Anchorage)				X
Upper Chena River				X
Valdez				X
Venetie				X
Wainwright				X
Wales				X
Wasilla				X
Willow				X
Wiseman				X
Yakutat				X