

Alaska Baseline Erosion Assessment
Alaskan Communities Affected by Erosion
16 October 2007

Background

The Corps has initiated a study to coordinate, plan, and provide an overall assessment on the prioritizing of shoreline erosion management efforts in the State of Alaska. The Corps, working with the State and other stakeholders, has developed this baseline study to provide a reasonable and measured response to erosion issues in Alaska, and will provide those affected by erosion recommendations on ways they can address their concerns.

The FY 2005 Consolidated Appropriations, Conference Report contained the following language.

“The conference finds there is a need for an Alaska erosion baseline study to coordinate and plan the appropriate responses and assistance for Alaska villages in the most need and to provide an overall assessment on the priority of which villages should receive assistance. Therefore, the conference has provided the \$2,000,000 for this study.”

How Communities Were Identified - The Corps solicited input from a wide variety of Federal, State, regional, and Tribal stakeholders to assist in identifying communities that are experiencing some sort of erosion problem. In addition, each Tribe was individually sent a letter to ask if their community was experiencing erosion problems. This input, coupled with the Corps’ knowledge and historical information, helped to create a comprehensive list of communities that have been, currently are, or potentially will be experiencing some sort of erosion problem. The list, which now numbers 181 communities, continues to grow as stakeholder coordination continues.

The attached list is broken down into four categories to help understand how the Corps is addressing the erosion issues in each community. The following information describes the different categories and also provides some context for what work the Corps of Engineers is undertaking to address the complex issues of erosion in Alaska.

The Corps expects to complete the Baseline Erosion Assessment through the publishing of a report in late 2008.

Spreadsheet Categories

Tribal Partnership Authority Communities - These seven communities were identified by Congress in 2003 legislation¹ which provided the Corps \$2.0 million to answer three questions. What is the ongoing cost of erosion? What would the cost be to relocate or co-locate these communities? How long do these communities have left until there is complete failure of land for each community? The legislation also directed the Corps to utilize \$1,000,000 of the funds provide to "...expedite all necessary environmental studies to document the impacts of this severe and continuing erosion."

The answers to these questions were documented in the Alaska Village Erosion Technical Assistance Program report that was finalized in April of 2006. The following table summarizes the findings of that report.

Community	Costs of Future Erosion Protection*	Cost to Relocate	How Long Does The Community Have
Bethel	\$ 5,000,000	N/A	> 100 years
Dillingham	10,000,000	N/A	> 100 years
Kaktovik	40,000,000	\$ 20 – 40 Million	> 100 years
Kivalina	15,000,000	\$ 95 – 125 Million	10 – 15 years
Newtok	90,000,000	\$ 80 – 130 Million	10 – 15 years
Shishmaref	16,000,000	\$100 – 200 Million	10 – 15 years
Unalakleet	30,000,000	N/A	> 100 years

*These numbers were a result past investigations, and do not necessarily reflect current need.

Alaska Coastal Erosion Authority Communities - These nine communities were identified by Congress in 2006 legislation² that provided \$2.4 million to implement Section 117³ projects. The following summarizes the status for each of these efforts. These nine communities were also the same ones named in the 2003 GAO Alaska Villages⁴

Community	Estimated Construction Costs	Status
Kivalina	\$30M	-Construction Agreement Signed - Dec 07 -Phase 1 Design Underway -Awaiting Construction Funds
Newtok	\$20M	-Decision Document being reviewed

¹ The Consolidated Appropriations Resolution, 2003 PL 108-7, Division D - Energy and Water Development Appropriations, 2003, Conference Report (H.R. 108-10, page 807)

² The Energy and Water Appropriations Bill, 2006, Senate Report 109-84, Page 41

³ The Consolidated Appropriations Act of 2005, PL 108-447, Division C - Energy and Water Development Appropriations Act, 2005

⁴ General Accounting Office Report GAO-04-12, *Alaska Native Villages- Most Are Affected by Flooding and Erosion, but Few Qualify for Federal Assistance*, December 2003.

Shishmaref	\$33M	-Construction Agreement Signed – Jul 06 -Phase 1 Construction of 625 of rock revetment underway; to be completed in Sep 08 -Phase 2 Design for an additional 750 feet underway -Awaiting Construction Funds for Phase 2
Unalakleet	\$20M	-Construction Agreement Signed – Jan 07 -Design Underway; Awaiting Construction Funds
Barrow	\$11M	-Decision Document needs to be prepared
Koyukuk	\$20M	-Preparing Decision Document
Point Hope	\$20M	-Decision Document needs to be prepared
Kaktovik	\$8.5M	-Decision Document needs to be prepared
Bethel	\$2.5M	-Preparing Decision Document

Baseline Erosion Assessment - Full Assessment Communities - This group of eleven communities was selected by the Corps and the State sponsor to have detailed erosion assessments developed. These communities were chosen because of the geographical proximity to each other, because many of these communities have given multiple reports of erosion problems, and because the Corps had not recently been to many of these communities. These assessments developed erosion rate maps, potential for damages, and suggested solutions for the erosion problems that the communities could pursue. The current funding of the overall Baseline Erosion Assessment was not sufficient to conduct more of these detailed assessments, but if more funding were made available, more of these detailed assessments would be done.

Baseline Erosion Assessment - Erosion Interview Communities - The remaining communities (those that notified the Corps they have erosion problems) are being contacted for a telephone interview to determine the magnitude of erosion that community is experiencing. The results of this work will assist the Corps and other decision makers to determine which communities are in greatest need of further detailed analysis. As new communities are identified, these will also be contacted using the telephone interview for an initial assessment of their potential erosion problems. A contractor to the Corps is performing the interviews and developing Erosion Information Papers (EIP). These EIP's consist of two pages of discussion, one page of photos, and an aerial photo that shows where the erosion problem is. The Corps will use these EIP's to assist in determining which communities are in greatest need of further investigation. Communities will be given the EIP first for their review prior to it being released to the general public.

	Alaskan Communities Affected by Erosion	Tribal Partnership Authority Communities	Alaska Coastal Erosion Authority Communities	Baseline Erosion Assessment - Full Assessment Communities	Baseline Erosion Assessment - Erosion Interview Communities
1	Akhiok				X
2	Akiachak				X
3	Akiak			X	
4	Alakanuk			X	
5	Alatna				X
6	Aleknagik				X
7	Allakaket				X
8	Ambler				X
9	Anchor Point				X
10	Anchorage				X
11	Angoon				X
12	Aniak			X	
13	Anvik				X
14	Atmautluak				X
15	Barrow		X		X
16	Bethel	X	X		
17	Bettles				X
18	Big Delta				X
19	Birch Creek				X
20	Brevig Mission				X
21	Buckland				X
22	Butte				X
23	Cantwell				X
24	Central				X
25	Chalkyitsik				X
26	Chefornak				X
27	Chevak				X
28	Chignik				X
29	Chignik Lake				X
30	Chignik Lagoon				X
31	Chiniak				X
32	Chitina				X
33	Chuathbaluk				X
34	Chistochina				X
35	Circle				X
36	Circle View Estates				X
37	Clark's Point				X
38	Coldfoot				X
39	Copper Center				X

	Alaskan Communities Affected by Erosion	Tribal Partnership Authority Communities	Alaska Coastal Erosion Authority Communities	Baseline Erosion Assessment - Full Assessment Communities	Baseline Erosion Assessment - Erosion Interview Communities
40	Cordova				X
41	Council				X
42	Crooked Creek				X
43	Deering				X
44	Delta Junction				X
45	Dillingham	X			
46	Diomedede				X
47	Douglas				X
48	Eagle				X
49	Eagle River-Chugiak				X
50	Eek				X
51	Egegik				X
52	Ekuk				X
53	Elim				X
54	Emmonak				X
55	Evansville				X
56	Fairbanks				X
57	False Pass				X
58	Fort Yukon				X
59	Fox				X
60	Gakona				X
61	Galena				X
62	Gambell				X
63	Girdwood				X
64	Golovin				X
65	Grayling				X
66	Gulkana				X
67	Gustavus				X
68	Haines				X
69	Haines Borough (Klehini/Chiklat Rivers)				X
70	Holy Cross				X
71	Homer				X
72	Hooper Bay				X
73	Hughes				X
74	Huslia				X
75	Hyder				X
76	Igiugig				X
77	Illiamna				X

	Alaskan Communities Affected by Erosion	Tribal Partnership Authority Communities	Alaska Coastal Erosion Authority Communities	Baseline Erosion Assessment - Full Assessment Communities	Baseline Erosion Assessment - Erosion Interview Communities
78	Ivanof Bay				X
79	Juneau				X
80	Kaktovik	X	X		
81	Kalskag (Upper and Lower)			X	
82	Kaltag				X
83	Karluk				X
84	Kenai				X
85	Kiana				X
86	King Cove				X
87	King Island				X
88	Kipnuk			X	
89	Kivalina	X	X		
90	Kokhanok				X
91	Kongiganak			X	
92	Kotlik				X
93	Kotzebue				X
94	Koyuk				X
95	Koyukuk		X		
96	Kwethluk			X	
97	Kwigillingok			X	
98	Larsen Bay				X
99	Levelock				X
100	Lime Village				X
101	Manley Hot Springs				X
102	Mary's Igloo				X
103	McCarthy				X
104	McGrath				X
105	Mekoryuk				X
106	Metlakatla				X
107	Nanwalek				X
108	Napakiak			X	
109	Napaskiak			X	
110	Nelson Lagoon				X
111	Nenana				X
112	New Stuyahok				X
113	Newhalem				
114	Newtok	X	X		
115	Nightmute				X
116	Ninilchik				X
117	Noatak				X

	Alaskan Communities Affected by Erosion	Tribal Partnership Authority Communities	Alaska Coastal Erosion Authority Communities	Baseline Erosion Assessment - Full Assessment Communities	Baseline Erosion Assessment - Erosion Interview Communities
118	Nome				X
119	Nondalton				X
120	Noorvik				X
121	Northway				X
122	Northway Village				X
123	Nuiqsut				X
124	Nulato				X
125	Nunam Iqua a.k.a Sheldon Point				X
126	Nunapitchuk				X
127	Old Harbor				X
128	Oscarville				X
129	Ouzinkie				X
130	Palmer				X
131	Pedro Bay				X
132	Perryville				X
133	Pile Bay/Williamsport Road				X
134	Pilot Point				X
135	Point Hope		X		
136	Point Lay				X
137	Popof Island				X
138	Port Alsworth				X
139	Port Graham				X
140	Port Heiden (Meshaik)				X
141	Port Lion				X
142	Portage				X
143	Prudhoe Bay				X
144	Red Devil				X
145	Russian Mission				X
146	Saint Michael				X
147	Saint Paul				X
148	Salcha				X
149	Savoonga				X
150	Selawik				X
151	Seward				X
152	Shageluk				X
153	Shaktoolik				X
154	Shishmaref	X	X		
155	Sitka				X

	Alaskan Communities Affected by Erosion	Tribal Partnership Authority Communities	Alaska Coastal Erosion Authority Communities	Baseline Erosion Assessment - Full Assessment Communities	Baseline Erosion Assessment - Erosion Interview Communities
156	Skagway				X
157	Skwentna				X
158	Sleetmute				X
159	Soldotna				X
160	South Naknek				X
161	Stebbins				X
162	Susitna				X
163	Sutton-Alpine				X
164	Talkeetna				X
165	Tazlina				X
166	Teller				X
167	Togiak				X
168	Toksook Bay				X
169	Tuntutuliak			X	
170	Tununak				X
171	Ugashik				X
172	Unalakleet	X	X		
173	Upper Chena River				X
174	Valdez				X
175	Venetie				X
176	Wainwright				X
177	Wales				X
178	Wasilla				X
179	Willow				X
180	Wiseman				X
181	Yakutat				X