

United States Department of Agriculture



Natural Resources Conservation Service
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Subject: Resource Conservationist -Trip Report
Napakiak Village Visit
Napakiak, Alaska

Date: May 22, 2018

To: Joanne Kuykendall, North Hub Leader
Fairbanks Field Office

File Code: 210-7

Location: The Village of Napakiak is 15 miles southwest of Bethel on the north bank between the Kuskokwim River and Johnson's Slough. Napakiak is influenced by storms in the Bering Sea and by inland continental weather. Additionally, the Kuskokwim river current is influenced by tides that can at times intensify wave action caused by wind and accelerate erosion. The community may be reached by boat or small plane.

Purpose: The Napakiak Village Council requested that NRCS investigate a possible EWP project due to erosion of the banks of the Kuskokwim River (See attached letter May 17th, 2018). The purpose of the site visit was to perform the EWP assessment and complete a DSR.

Participants: David Andrew, Napakiak Tribal Administrator; Walter Nelson, City Council Member
Ryan Maroney - NRCS RC; Fran Reich - ACES

Background/Findings: R. Maroney and A. Oxford (previous DC) traveled in the winter of 2006 to look at erosion in Napakiak. While there, they met with Richard Jung and learned about the long history of erosion occurring along the river bank where Johnson Slough meets the Kuskokwim River (see Figure 1).

Prior to visiting the village in 2018, F. Reich and R. Maroney reviewed David Andrew's EWP request letter containing maps, erosion documentation and a list of proposed buildings for relocation (See attached letter). We contacted Mr. Andrew by phone and scheduled a site visit for May 22, 2018. We expected to arrive and see structures and possibly infrastructure that was imminently threatened by bank erosion. That is essentially what we saw when we visited the site.

We arrived in Napakiak on in the afternoon of May 22, 2018, by NRCS boat from Bethel. We met with David Andrew and Walter Nelson at the City Council Office to discuss community concerns and look at maps and photographs documenting how the erosion has accelerated in recent years. Mr. Nelson and Mr. Andrew identified three buildings for relocation that are a top priority for the community:

- **Former Army National Guard buildings** (old and new): The two buildings are on post and pad foundations and are connected by a small covered walkway that would require disassembly. Both

old and new buildings have +1000 gallon fuel tanks as well as steel access ramps attached to them (see Figure 2). The older building is reported to have asbestos, but will be used as a cold storage unit. The new building is more modern and will be used as a multi-purpose building. The Army National Guard turned over ownership of the buildings to the community many years ago.

- **City Garage:** This building provides critical infrastructure and is used by the city to maintain its fleet of four-wheelers, vacuum pumps and tanks on trailers to support the community's water-sewer flush/haul system. This building is approximately 36'x36' and built on post-and-pad foundation elevated off the ground. It has a sizeable wooden access ramp to access garage doors (see Figure 3).
- **City Fire Station:** This building currently houses a fire truck that has not been used for many years and provides covered storage. The community would like to move this building and utilize it for storage. The building is approximately 36'x24' and may present a challenge for relocation due to the foundation support beams resting directly on pads very close to the ground (see Figure 4). Some excavation will be necessary to jack up the foundation.

We reviewed maps identifying relocation sites well away from the Kuskokwim River bank for the identified buildings (see Figure 5) and also evaluated the road condition. Mr. Nelson indicated that relocation of buildings would need to wait until freeze up as the wet roads would not support moving the buildings in the summer (see Figure 6). Additionally, road upgrades are scheduled in the community this summer which would make relocation efforts easier once roads are repaired and improved.

In addition to the three identified structures for relocation, we observed that the Lower Kuskokwim School District School and its tank farm are also imminently threatened by erosion (see Figure 7). The State of Alaska is reportedly working to plan a response for school relocation and/or demolition. Mr. Nelson also informed us that the community will eventually relocate its primary well house that is currently located adjacent to the Fire Station. We asked if they would be interested in moving the well as part of the relocation of the 3 identified structures and Mr. Nelson and Mr. Andrew said the new well was not ready and the community would therefore need to wait on relocating the well house.

We left the office together and walked the river bank and looked at the erosion and the imminently threatened structures. We also looked at the proposed sites for relocation of three identified buildings. Before leaving, we utilized the NRCS boat GPS to record river depth along the river bank.

In summary, there is clearly an on-going erosion problem in Napakiak. It appears that erosion rates have increased this year following break up (see Max Neal's Report) and structures will be lost to erosion in the near term if they are not relocated.

Recommendations/Follow-Up: In front of the community the river bank drops off precipitously and the depth of the Kuskokwim River is approximately 40-50' deep depth (see Figure 8). A stabilization project is very likely beyond the economic scope of an NRCS project. Moving structures that are imminently threatened appears to be the most likely solution to this problem. The City of Napakiak and Tribal Government have made long range relocation plans and have sites selected. The city does have a custom steel, low-boy and heavy equipment for moving structures as well as experienced workers (see Figure 9). Although the tools and experience exist within the community, the 10-day timeframe associated with an exigency EWP project will likely present a significant challenge to successful project implementation. An EWP recovery project is recommended to accommodate the logistical necessity of relocating buildings after freeze-up, while also allowing time for the village work crew to safely move the buildings without severe time-constraints. Should a contract be awarded, Mr. Andrew and Mr. Nelson both indicated that the City of Napakiak would most likely be the project sponsor.

Ryan Maroney
NRCS Palmer SO

Cc: Brett Nelson, SCE, Palmer SO
Jeff Oatley, CE, Fairbanks, FO
Lonnie Steinke, Palmer SO
Fran Reich, Bethel, ACES

Attachments: Village of Napakiak EWP Letter Requesting Assistance - May 17th, 2018
ANTHC Trip Report - Max Neale - May 11th, 2018
Five Year Priorities of Village of Napakiak

Figure 1: NRCS EWP 2006 site visit. Photo of Richard Jung showing A. Oxford historic extent of community and noting the continual erosion that has occurred over the years.

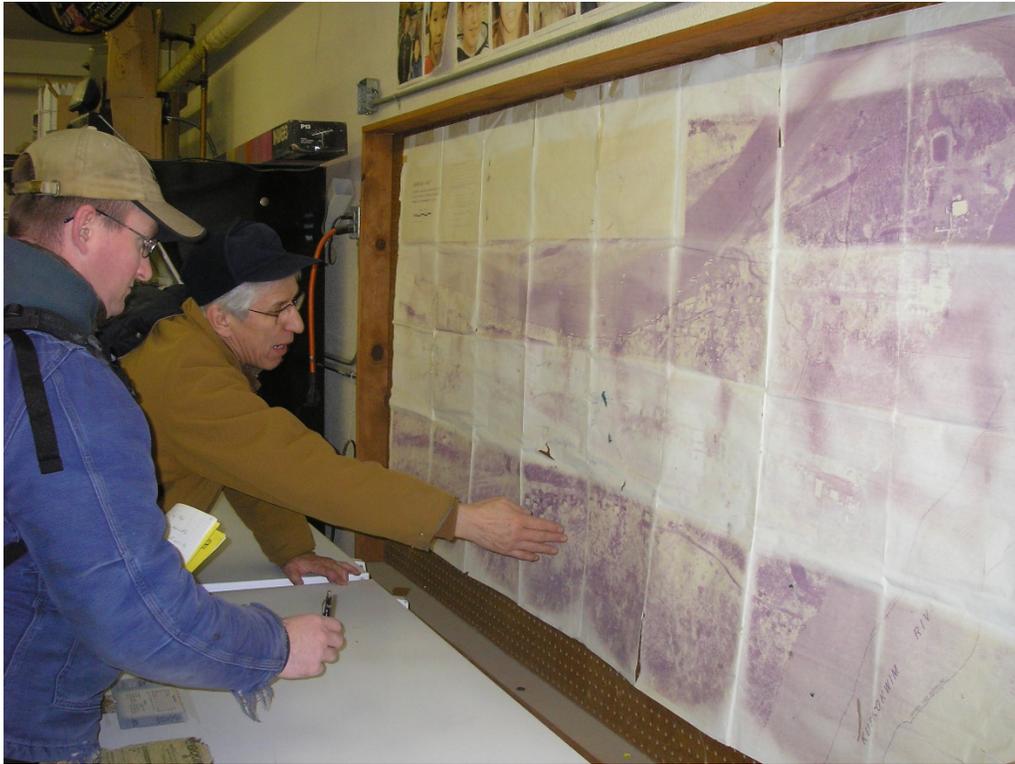


Figure 2: Form Army National Guard Amory identified for Relocation consists of two buidlings.



Figure 2 Continued



Figure 3: City Garage identified for relocation.



Figure 4: City Fire Station identified for relocation - building to right in top photo.



Figure 5: Relocation sites identified for the buildings proposed for relocation: Armory building site in marked with red, and Future City Shop Site (Garage and Firehouse) indicated in type on right of map.



Figure 6: Road condition is uneven and wet and muddy in places.



Figure 7: School Tank Farm and Fuel Header. Note pipeline extension pile to right.



Figure 9: Shorty's Shop in Bethel built a low boy that the community has moved several homes and building with in the past.

