

DISTRICT TRIP REPORT

Project: Denali Commission Eek Barge Landing Design

Description: Eek Trip Report

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Community Meeting

The community meeting was held at the Community Hall on Monday, May 11, 2010. Representatives from the council members of the City of Eek, Eek Tribal Council and Iqfijouaq Corporation attended.

Our point of contact, Nick Carter, with the tribal council was not available due to a commercial fishing opener.

Meeting Attendees

Moses Green – City Council
Sam Alexie – Tribal Council
Bessie Green – Tribal Council
Jim White – Tribal Council
Fritz Beebe – Iqfijouaq Corp.

Topics Discussed

General description of the Denali Commission Barge Landing Improvement project was given. The preliminary planning map showing the proposed mooring point locations and barge landing improvement was presented for used during the meeting.

Described the Denali Commissions requirement for community resolutions in support of the project from the city, tribe and corporation. The tribe has received the letter concerning the resolution supporting the project and their tribal administrator is working on a resolution to be voted on. The city and corporation were given copies of the sample resolutions for them to use in developing their own resolutions. The city and corporation believe that they would be able to have their resolutions completed within a month.

The barge landing is located on a straight stretch of the Eek River roughly 35 river miles from Kuskokwim Bay. Eek River is an ungauged, sinuous river located near the mouth of the Kuskokwim River. Eek is close enough to Kuskokwim Bay that it experiences tidal variation in river stage. The maximum range of tidal variations from observations and photographs taken by locals appears to be roughly eight feet. The phase lag in the tidal variation was approximately four hours after Kuskokwim Bay. Being a low slope river the current is slow and was estimated to be about 0.5 to 1.0 ft per second. The locals indicated that ice damage and jamming during the spring is not a concern. No sign of ice damage was observed.

The existing barge landing is a gravel pad roughly 200ft x 180ft. The gravel pad appears to be on the order of four or five feet thick. The barge landing appears to be about three feet above normal high water. The area directly to the west of the gravel landing holds the fuel header and elevated fuel tank farm. The south portion of the landing is currently used as the staging and lay-down area for shipping containers.



Figure 1. Tank farm



Figure 2. Container storage

The landing is on a straight section of river with no erosion in the area of the barge landing or upstream. The area upstream of the landing may have some minor accretion occurring. The area downstream of the landing does show signs of erosion as the river transitions into a bend below the landing. The river is approximately 830 feet in width in the vicinity of the barge landing. Water depths off of the barge landing could not be visually determined. A bathymetric survey of the river in the area of the barge landing will be completed this fall.

Beach slopes in the area of the landing are roughly 1v:5h below the imported gravel pad. The beach there is mainly gravel and sand on the surface. The beach slopes upstream of the landing are shallower, roughly between a 1v:5h and a 1v:10h slope. The downstream beach slopes appear to be similar to those in the gravel landing area. The beach materials in the areas up and downstream of the landing mainly consist of silt.



Figure 2. Beach area at the existing barge landing



Figure 3. Beach upstream of the landing



Figure 4. Beach downstream of the landing

There are currently three deadmen at the current barge landing. The barge companies use the deadmen during deliveries but the locals did not know for certain what the buried deadmen were or how deep they were buried. The terminal ends of the deadmen are 1/2-inch and 1-inch cable with end loops. The deadmen are used by the barge companies but not trusted to hold the full weight of the barges. Barge companies all use their engines to hold against the shore while moored.



Figure 5. Existing deadman

The locals described for us how barge operators use the existing landing. They said the barges come up the north side of the river in the deepest channel several hundred yards upstream of the landing and then wait for the tide to come across and land. A shoal roughly in the middle of the river just downstream of the barge landing makes passage from the deeper north channel to the south channel impractical even during high tides. Barges have to wait for the right tidal stage, sometimes overnight, to have enough water to make it down the south channel to the landing. The shoal is large enough to be exposed at extreme low tides. Locals note that the shoal is a fairly recent problem within the last 3-5 years. The locals are concerned that the shoal is building but they say it was made worse by the off-loading of gravel for the airport by the barges running their engines. Tugs have to maintain power to hold barges the entire time they are landed. Even with the shoal the locals say that this is the best location for the barge landing.



Figure 6. Photo of the exposed shoal during an extreme low tide

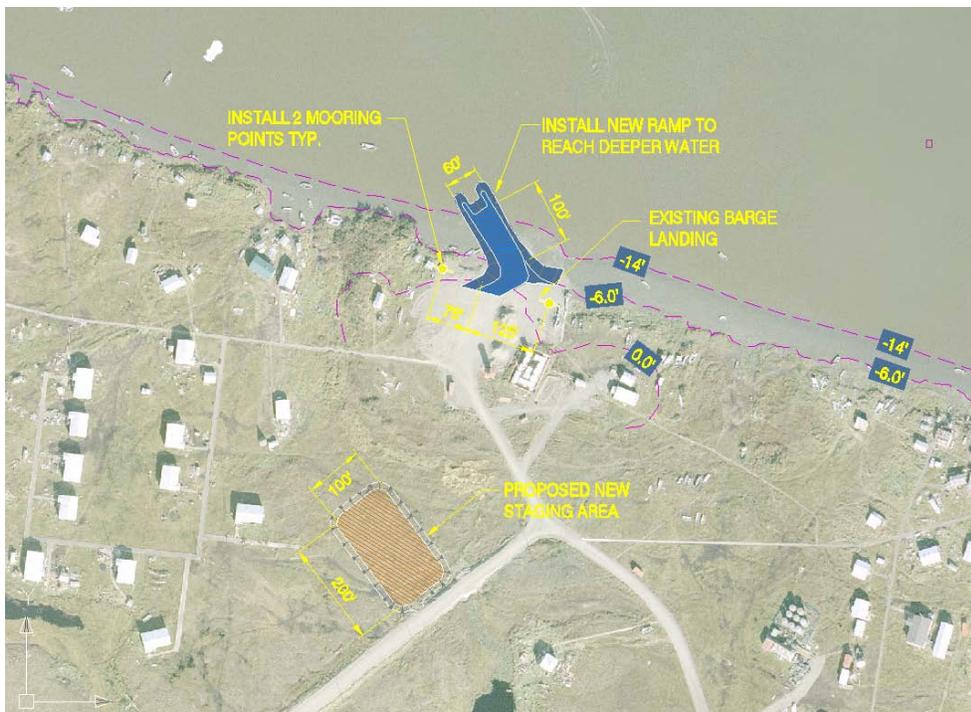


Figure 7. Proposed barge landing improvement layout

During the community meeting the group discussed the preliminary barge landing improvement layout, including an expanded gravel landing that reaches deeper water and mooring points. Several other possible landing orientations were discussed but it was agreed that the barge companies' input and surveyed depths in the area would be needed before any orientation for the landing could be decided upon. Those present all preferred the below-grade mooring point installations over the above-graded installations, due to the amount of traffic in the area.

The new staging is proposed adjacent to the airport access road, roughly 100 yards south of the barge landing. The staging area would begin just south of the culvert under the gravel road. The staging area is planned to be 100ft x 200ft. The area is several feet higher in elevation than most of the surrounding areas and less likely to have drainage issues. The area is vegetated with grasses and moss. Permafrost in the area is roughly 18-24 inches below grade. Survey monuments should be installed in road or in gravel pad. The surrounding areas are unstable.



Figure 8. Proposed new staging area

Corps real estate search and local information both find that the lands in the area of the barge landing and staging area are owned by Iqfijouaq Corp and part of the municipal reserve. The land directly to the west is a native restricted trustee deed. The land to the south is deeded to the state for the airport. The tidelands in the area of the barge landing expansion would have to be obtained from Department of Natural Resources (DNR). The lands would need to be acquired through the tidelands permitting process.

The attendees did not know if tidelands permits for either barge landing had been obtained. Corps representatives explained the need for the barge landing permit to protect the community's access interests.

No known archeological sites, fish camps, or house pits in either the barge landing area or the new staging area. It was noted that the barge landing area has been disturbed several times.

Most of the locals with knowledge about the barge landing users were out commercial fishing during the site visit. We left copies of the preliminary barge landing improvement project from them to review upon their return. We also left several business cards in case they had question or comments.