
Golovin
Shaktoolik
Unalakleet

Unalakleet - The blue line is the total length of the rip rap project, the red section is where the current funding takes us to

This is the area where the gabions have dropped in the floods of ‘04, ’05, and ‘09 from undermining shown in the previous slides red section

The flood of ‘04 shows this section starting to drop, the floods of ’05 and ‘09 did more damage

The large volume of flood water may dismantle the project if not completed, it would be like building a house without a roof. The gabions are under the waves cause by the strong current.

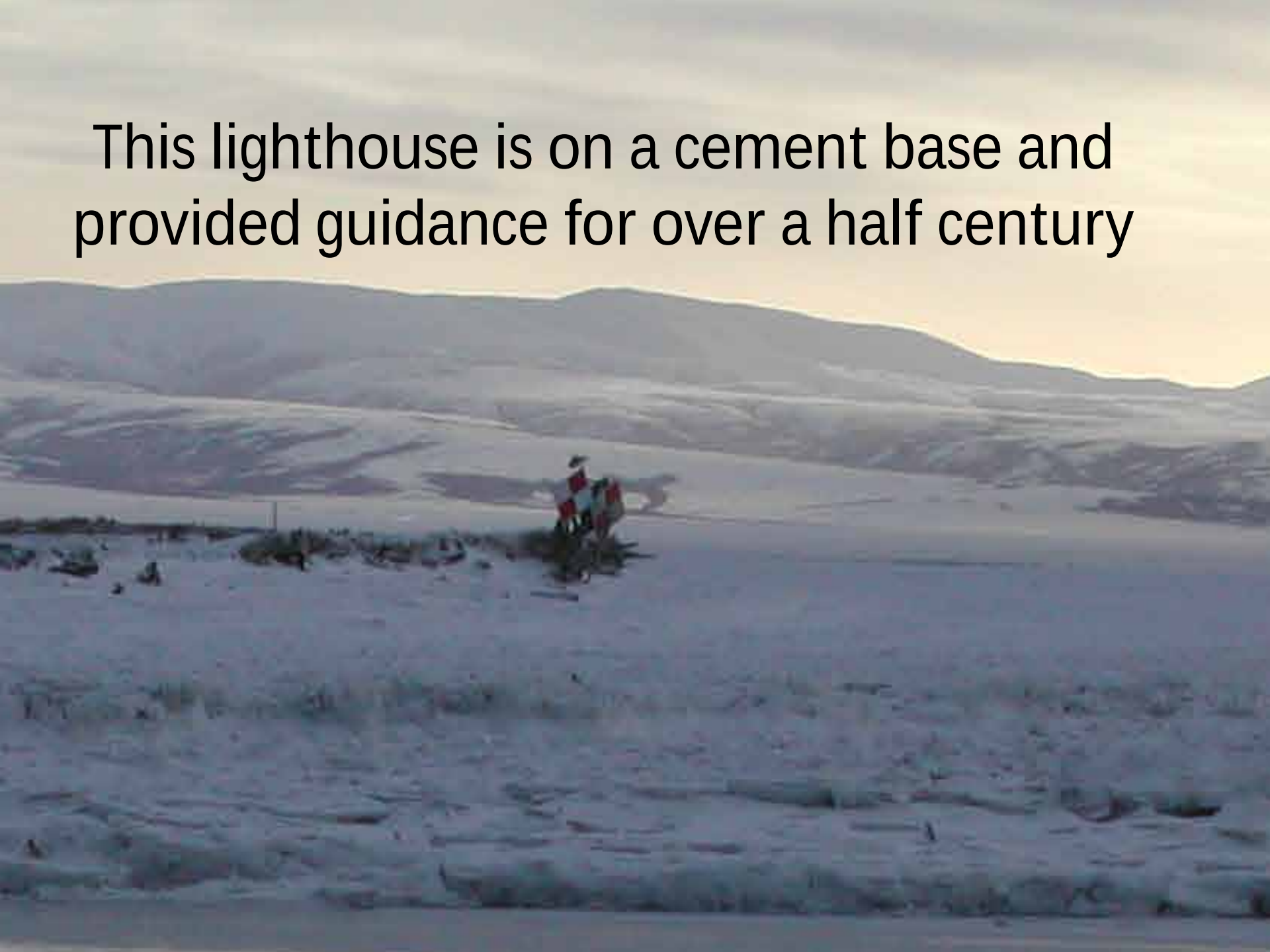
November 09 flood, this photo was taken 2 hours prior to the peak tide, minutes later the slush and ice moved in and dissipated the waves preventing an additional 4 hours of wave damage

Short notice mitigation, rock and 2x12 dike, water diverter

The slush and ice saved many homes from water damage

But the ice and logs did heavy damage to the gabion wall, as the tide dropped the spray from the waves formed a glacier wall

These gabions were the same level as the ground to the left prior to the November flood


This lighthouse is on a cement base and provided guidance for over a half century

Post September 05 flood, the pipe shown is a marker placed above the water source line, the box is an electrical box feeding power to the water facility

05 photo of power box, we believe there was substantial erosion along the water and power lines but won’t know the extent of the damage until the spring melt, the waterline may now be exposed

Village Safe Water is designing a new water line that favors this route to the North River away from the ocean that would address the erosion problem, however, they have stressed lack of funding in their program for construction. The lower cost options would tap into ocean influenced water that would have saline. The community has had a good water source since 1964 and does not want to reverse that trend.

This airport fence has collapsed in each of the last 3 floods allowing debris on the airport apron. Two hangers at the airport reported 4 inches of water in them.

The photo in Unalakleet on the left shows a road built after the flood of 74 that protected many homes from flood damage and was elevated in Sept. 09 (bottom left) prior to the flood preventing further damage. Notice the boat stored on barrels on the top left, it was floating in the November flood.

The photo on the left shows the threatened water and power line that feeds the airport facilities following the flood of ‘05. The erosion project on the right prevented damage to the water and underground electrical lines, and further erosion.

Erosion project, DOT ‘08

Shaktoolik - Should we be considering a project as shown in the previous slide for this area in Shaktoolik?

Shaktoolik school 05 flood

Shaktoolik is coming up for a school rehabilitation project, we will work together to consider a beefed up facility that could serve as a school, evacuation shelter since there is currently no safe option to safety in the event of a huge storm. We would need the assistance of other State agencies, besides the schools system, to pool funds for a dual purpose building and push for a higher ranking position given their extenuating circumstances.

This photo shows the access route to the mainland exposing the dire situation they are in. In their hazard mitigation plan is a desire to install channel buoys in the river to show the route of the channel if they ever need to evacuate the community by boat, which right now may be their only viable option in a given circumstance. In the November flood we, and they had westerly winds at 65 mph but Shaktoolik was spared the flood because the slush prevented the high surf. During November floods the river is usually iced in ruling that option out. How many of us would be willing to go out in a boat, in the dark, with children, in 65 mph winds with ice and logs floating all over? This should justify the need to consider a shelter such as the beefed up school facility.

The river on the right provides the community water source but concern of the ocean breeching over the natural lip would diminish the quality of water allowing saline from the ocean. The Corps of Engineers are conducting a study on erosion but has ruled out this area for a project consideration for now. The study is focusing on a project near the fuel tank farm.

This is the terminus of the proposed evacuation road

The Corps is doing a study on flood and inundation levels and is a year from completion. Once the study is done an elevation level for an evacuation road can be determined. Design work can begin once that information becomes available. Funding for construction is uncertain but consideration for this segment of the Manley to Nome road should be looked at.

Ocean view

Golovin ‘05 flood

The Corps has just stated they could conduct a study for Golovin under Section 103 which would require a 50-50 match. The design and construction would require a 35% match with 65% coming from the Corps. The maximum federal amount for design and construction costs for this Section is $3 M, total $4.05M. We will continue to look for and at other solutions and options as they become available. We will seek the local match requirement if the Corps moves forward with the study.

With local funds, equipment, and labor the community constructed a dike shown on the left in the area to the right that prevented water damage in the November ‘09 flood to homes, the clinic, the school, the power plant, the tank farm, and the store.

The community supports a protective access road as shown in the Unalakleet slide that could provide additional protection.

An erosion project as shown in the Unalakleet slide by the DOT properties may be a viable option for this section on the ocean side of the community. Without protection the electrical power plant is vulnerable to floods and came close to having to shut down in the flood of ‘05

Steve Ivanoff closing comment-All of Alaska has enjoyed a major enhancement to our quality of life from an industry that contributes heavily to the carbon emissions that results in climate change. After going 29 years without a flood we have had 4 in the last 7 years, clearly climate change effect. We have over $30B in savings from the oil industry that has added to the threat our villages are experiencing so we should all be working hard to create and fund solutions to ensure safety of these people. It is frustrating to face resistance for the funding of our projects given that these rural residents are clearly victims of circumstances. We have heard of the rainy day account, it may be sunny in parts of your area but it is pouring in the Western Alaska, let's use a small portion of that oil industry money to offset the problems it has contributed to.

A big thank you to the IAW and Governor's Sub-Climate Cabinet on Climate members, Commissioner Hartig, Trish Opheen, Deputy Commissioner Mike Black and all of your staff for your work and compassionate approach.