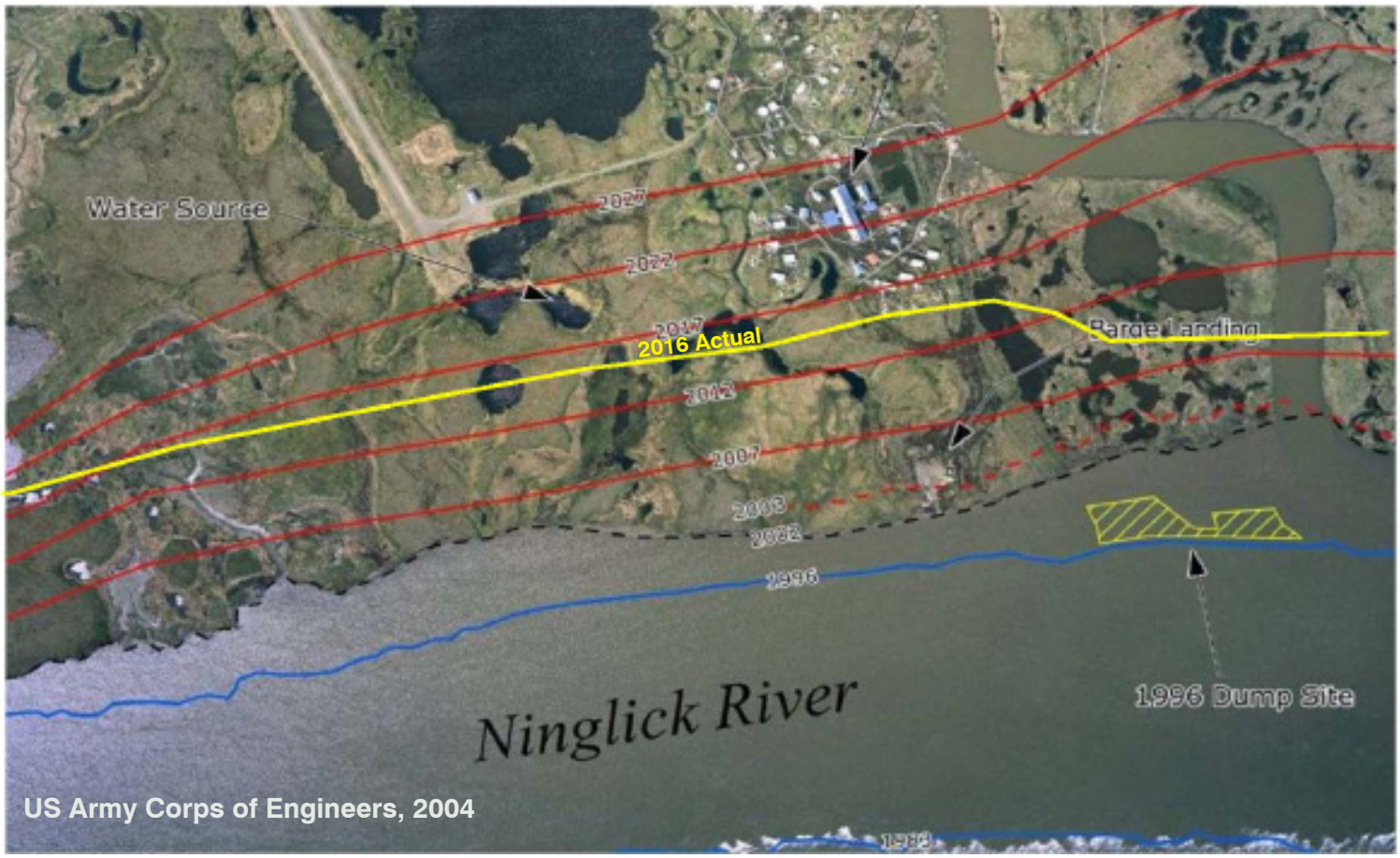
Newtok to Mertarvik Relocation

NEWTOK VILLAGE COUNCIL

December 2017

Newtok is crumbling into the Ninglick River at a rate of 70-90 feet per year.

Overview



US Army Corps of Engineers, 2004

Background

The Native Village of Newtok is a federally recognized Tribe of 350 Yupik Eskimos who live along the Ninglick River on Alaska's Bering Sea coast. The governing body is the Newtok Village Council (NVC). These resilient people have lived in the area for more than 2,000 years. Their original migratory lifestyle ended when the US Bureau of Education mandated that Alaska Native children attend schools constructed by the government with little regard to threats from natural disasters. Despite such threats and a staggering unemployment rate resulting in a per capita median income 68% below the national average, the community has survived at their current location based on a subsistence economy. The residents of Newtok desperately want to preserve their identity as an independent village within the region.

Since 2002 there have been six federal disasters declared involving Newtok due to specific flood events. However, the undeniable, primary threat to Newtok is coastal/riverine erosion. Thawing permafrost in combination with river currents and coastal storms result in average shoreline erosion rates of 70-90 feet per year at the existing village site, as documented by the US Army Corps of Engineers[1]. Coastal erosion also increases the impact of other adverse weather events. For example, Newtok is now much more susceptible to wind-driven storms/flooding because a significant amount of shoreline and landmass in the area no longer exists to act as a buffer. Government Accountability Office Report 04-142 identified Newtok as one of four Alaska villages in imminent danger that need to relocate to a safe site. The report noted that between 1954 and 2001, the village lost more than 4,000 feet of land to erosion. In November 2003, the US Government acknowledged the need to relocate the village and conveyed 12,000 acres on Nelson Island (nine miles upriver) to the Newtok Native Corporation for a new townsite (reference PL 108-129). The new site is known as Mertarvik.

Newtok has already lost its sewage disposal system, solid waste site, barge landing, and boat dock to erosion. Residents, particularly the very young and elderly, are experiencing significant public health problems because there is no proper way to handle human or solid waste. When the community loses its potable water supply in 2018 or 2019 there will be a public health crisis in Newtok. There is standing water throughout the townsite due to thawing permafrost, and most homes are inundated with mold due to frequent flooding, all of which contribute to well documented local health issues. Losing the boat dock and barge landing site has created significant safety issues. When the school and airport are condemned (in four years or less), the community will no longer be viable.

1 http://www.poa.usace.army.mil/Portals/34/docs/civilworks/BEA/Newtok_Final%20Report.pdf

Barge Landing Destroyed in 2005

Threatened Homes

Threatened School

Mertarvik

Yup'ik meaning, "getting water from the spring."

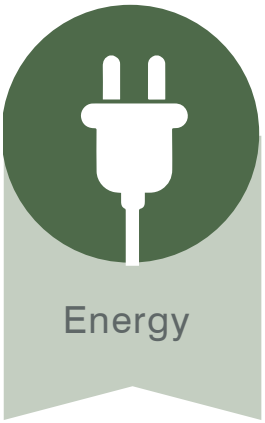
Working with numerous State and Federal agencies since the 1990s, Newtok has made some progress on developing a new townsite in Mertarvik. Eleven new homes, a barge landing, two community wells, and a road to the quarry site have been constructed. The foundation for a community building that will serve as the Mertarvik Evacuation Center (MEC) and temporary school has also been installed. Accomplishments over the last two years also include the following:

- Executed Contract for Professional Project Management Services
- Prepared a Final Townsite Plan and Plat
- Prepared an Overarching Environmental Impact Statement
- Prepared Shell and Core Design Documents for the Evacuation Center
- Prepared Design Documents for a Community Energy System
- Authorized ANTHC to Begin Design of a Community Water and Sewer System
- Completed Preliminary Design of a Community Solid Waste Disposal Site
- Prepared a Housing Master Plan
- Prepared a School District Interim Education Plan
- Completed an FAA-Approved Airport Layout Plan
- Purchased and Mobilized a Construction Equipment Fleet
- Developed a Construction Man-Camp
- Evaluated Excess Military Barracks at JBER for Use as Permanent Housing
- Submitted an Application for DOD's Innovative Readiness Training Program

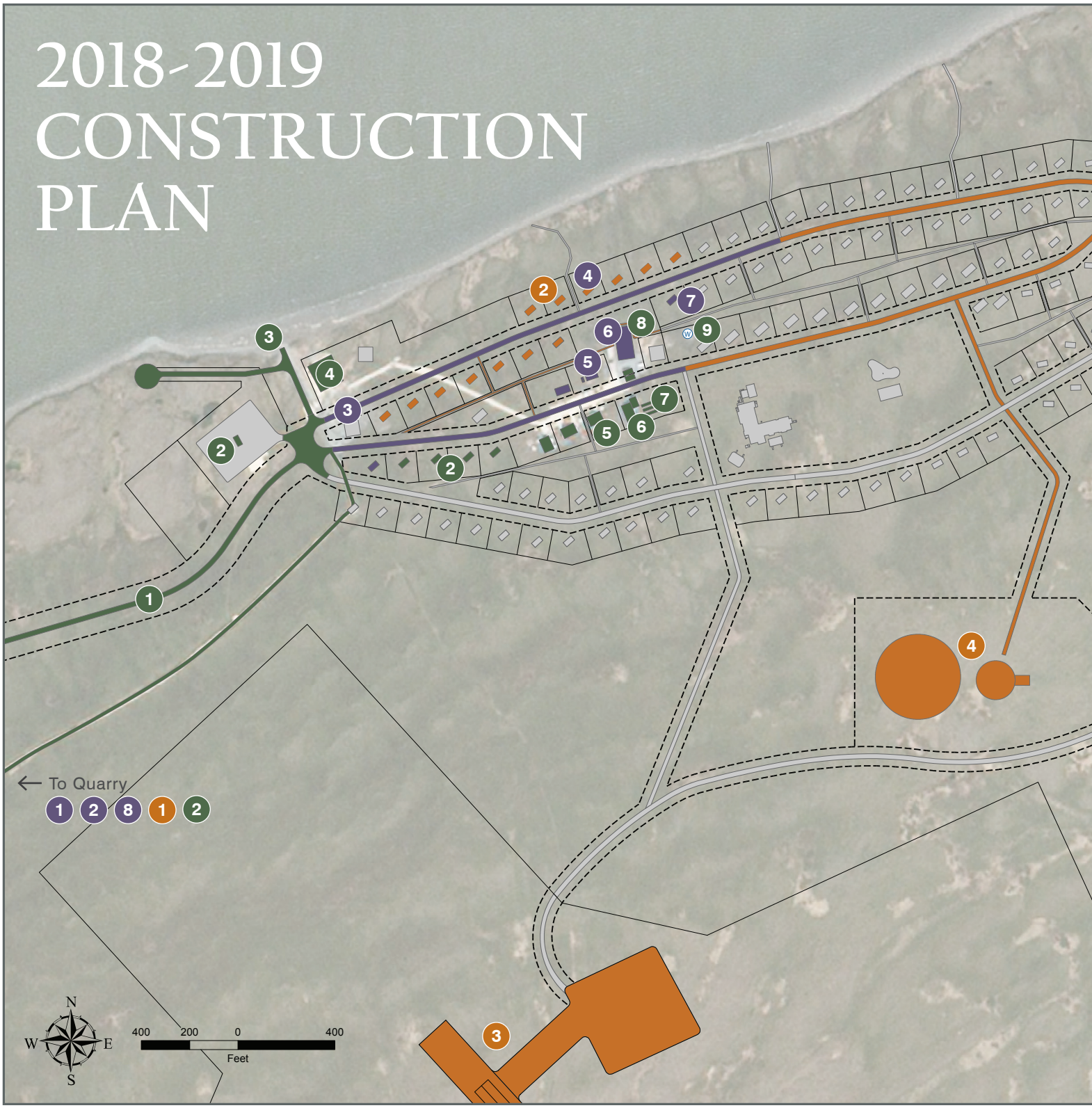
The total additional funds needed to develop Mertarvik are approximately $130 million. In order to make significant progress in 2018-2019, approximately $37 million is needed now.

4 NEAR TERM PRIORITIES

2018-2019



2018-2019 CONSTRUCTION PLAN



2018	
Estimate	**$14 million**
Available	**$4.4 million**
Shortfall	**$9.6 million**

2019	
Estimate	**$29.8 million**
Available	**$3.3 million**
Shortfall	**$26.6 million**

Completed to Date

1. Road to Quarry
2. 11 Homes
3. Barge Landing
4. Construction Fuel Facility
5. Man-Camp Cafeteria
6. Man-Camp Bath House
7. Man-Camp Bunk Houses
8. Foundation for Mertavik Evacuation Center
9. Water Well

2018

1 Quarry Expansion (off map)

Cost Estimtate	$650,000
Funding Available	$450,000
Shortfall	$200,000

2 Landfill Cell 1 (off map)

Cost Estimtate	$750,000
Funding Available	$0
Shortfall	$750,000

3 Roads & Trails

Cost Estimtate	$1.2 million
Funding Available	$0
Shortfall	$1.2 million

4 Barracks Renovation & Site Work

Cost Estimtate	$1 million
Funding Available	$1 million
Shortfall	$0

5 Power Plant

Cost Estimtate	$3.5 million
Funding Available	$1 million
Shortfall	$2.5 million

6 Mertarvik Evacuation Center

Cost Estimtate	$5.5 million
Funding Available	$1.9 million
Shortfall	$3.6 million

7 Teacher Housing

Cost Estimtate	$800,000
Funding Available	$0
Shortfall	$800,000

8 Septage Disposal Site (off map)

Cost Estimtate	$550,000
Funding Available	$0
Shortfall	$550,000

2019

1 Quarry Expansion (off map)

Cost Estimtate	$500,000
Funding Available	$450,000
Shortfall	$50,000

2 Complete Barracks Project (13 new homes)

Cost Estimtate	$3.8 million
Funding Available	$2.8 million
Shortfall	$1 million

3 Airport Phase 1

Cost Estimtate	$15 million
Funding Available	$0
Shortfall	$15 million

4 Water Well Field

Cost Estimtate	$2 million
Funding Available	$0
Shortfall	$2 million

5 Roads & Trails

Cost Estimtate	$3 million
Funding Available	$0
Shortfall	$3 million

6 Wastewater Treatment Lagoon

Cost Estimtate	$5.5 million
Funding Available	$0
Shortfall	$5.5 million

Barriers

It is clear that NVC needs the financial support of state, federal, and private partners to implement its relocation plans. Securing funding is the most challenging piece of the Newtok relocation puzzle. There are three main barriers with respect to funding.

STAFFORD ACT

Regulations and funding mechanisms developed by FEMA pursuant to the Stafford Act are based on disaster declarations linked to singular events like hurricanes and earthquakes. Predictable, slow-moving disasters such as that occurring in Newtok do not "fit" into the Stafford Act, so federal disaster relief funds are not available. The Newtok Village Council submitted a formal disaster declaration under the Stafford Act to the President in December 2016 and it was denied.

RELOCATION POLICY

There is no clear state or national policy on how to fund the relocation of communities threatened by flooding, erosion, and/or permafrost degradation. Consequently, there is no dedicated funding stream to complete relocation projects in a timely, cost-effective manner. By default then, the only recourse for communities like Newtok is to try to patch together individual projects using existing grant programs that never envisioned building an entire new community. In collaboration with the Denali Commission and State of Alaska, NVC has determined that there simply is not enough time to completely develop the new village site using existing grant programs before Newtok becomes unsustainable.

"CATCH-22"

Unfortunately, many state and federal agencies have yet to commit funding for the development of Mertarvik. Multiple efforts to obtain funds via existing grant programs for utilities and support services have been hindered due to the lack of housing stock in Mertarvik. Conversely, entities that provide housing grants and loans are hesitant to provide support without requisite power and sanitation facilities in place. Because of this catch-22, the development of Mertarvik continues at a sluggish pace while the Ninglick River continues to consume Newtok.

Funding Summary and Strategy

The following investments for the relocation project have been made to-date: State of Alaska, $10.8 million; Bureau of Indian Affairs, $5.1 million; Denali Commission, $4.7 million; Housing and Urban Development, $2.3 million. The total additional funds needed to develop Mertarvik is approximately $130 million. Approximately 90% of the funds secured to date have been through direct grants and/or agreements vs. a competitive process. Most of the unsuccessful competitive grant applications can be attributed to the catch-22 scenario described above. Currently, NVC is pursuing funding opportunities with the following agencies to complete the projects outlined in the 2018 and 2019 Construction Plan:

- Denali Commission Village Infrastructure Protection Program
- US Army Corps of Engineers Project Partnership Agreement
- US Department of Agriculture High Energy Cost Grant Program
- Federal Emergency Management Administration Pre-Disaster Mitigation Grant Program
- State of Alaska Hazard Mitigation Grant Program
- DOD Innovative Readiness Training Program

NVC's current strategy is to secure sufficient funds via grants and other sources so that enough housing and other core infrastructure can be completed to support an initial group of "pioneers" from the existing village, in hopes that this will then be enough progress to convince funding agencies to complete the build-out via existing programs. The goal is to have approximately 80 individuals living in Mertarvik by 2018, and 150 by 2019.

In order to make significant progress in 2018-2019, approximately $37 million is needed now.

Additional Information

For additional information on Newtok and Mertarvik, please see the following:

https://www.commerce.alaska.gov/web/dcra/planninglandmanagement/newtokplanninggroup.aspx

https://www.theatlantic.com/business/archive/2015/08/alaska-village-climate-change/402604/

https://www.youtube.com/watch?v=NtL8POIzkEg&sns=em

https://www.today.com/video/newtok-alaska-is-relocating-due-to-climate-change-what-it-s-like-to-live-there-1083635779757

https://news.vice.com/story/climate-change-is-killing-this-alaskan-village

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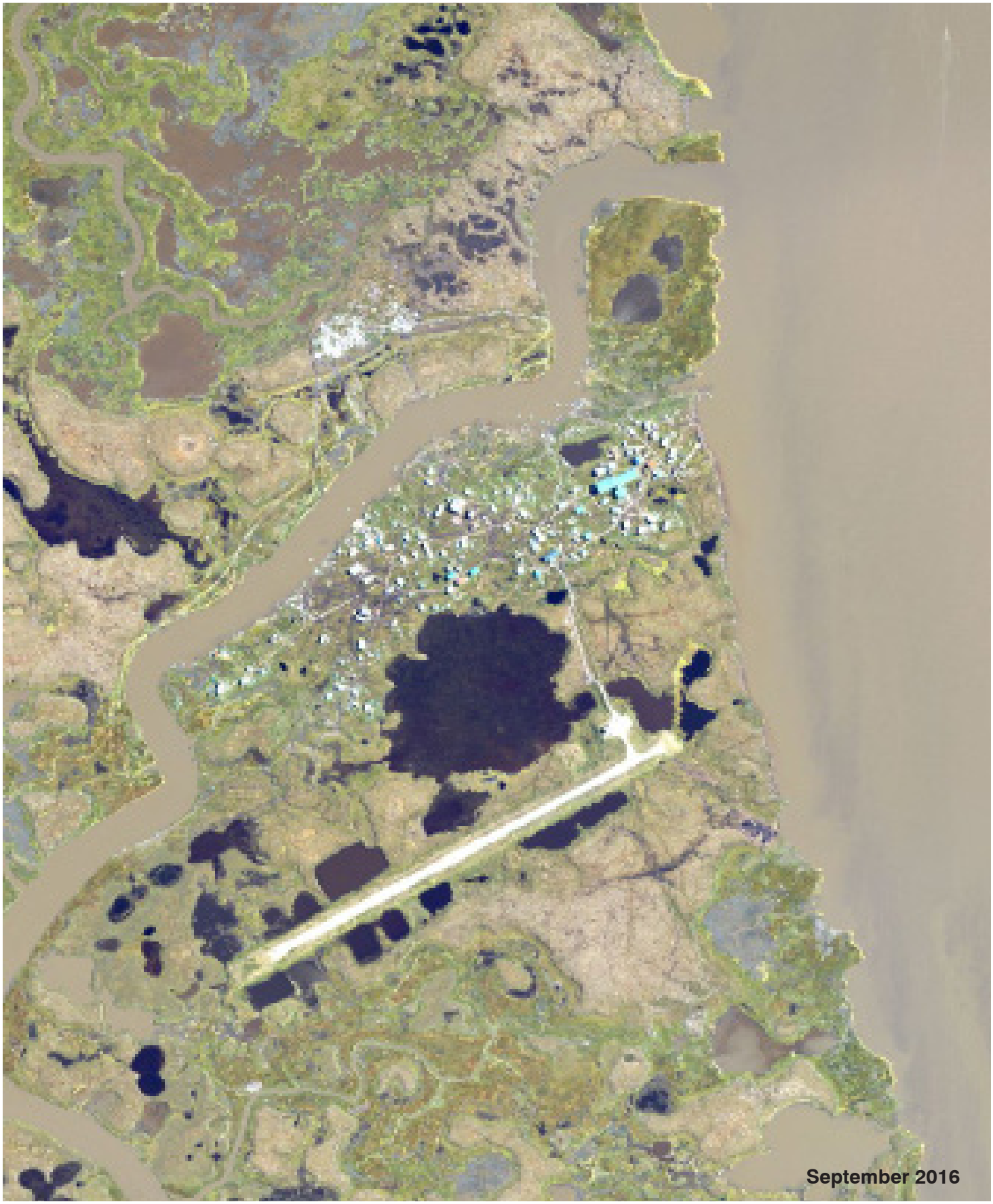

MERTARVIK

Newtok

DOWL

DENALI COMMISSION ALASKA