

Alaska Department of
Transportation &
Public Facilities

July 25, 2023

Kivalina
Airport
Relocation
Feasibility Study



Introductions

DOT&PF

- Scott Maybrier, Designer
- Jonathan Hutchinson, DOT&PF Engineer

Stantec

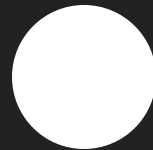
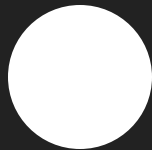
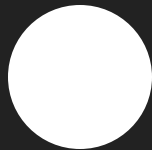
- Andrew Niemiec, Airport Engineer
- Ryan Cooper, Airport Planner

An aerial photograph of a small, elongated island or peninsula. The island is densely packed with small, colorful buildings, likely a small community or settlement. The water surrounding the island is a deep, clear blue, and the sky above is a pale, clear blue. The island's shape is somewhat irregular, with a curved end on the left side.

Agenda

1. Feasibility Study 101
2. Study Elements
3. Schedule
4. Alternatives
5. Open House/Q&A

Feasibility Study 101



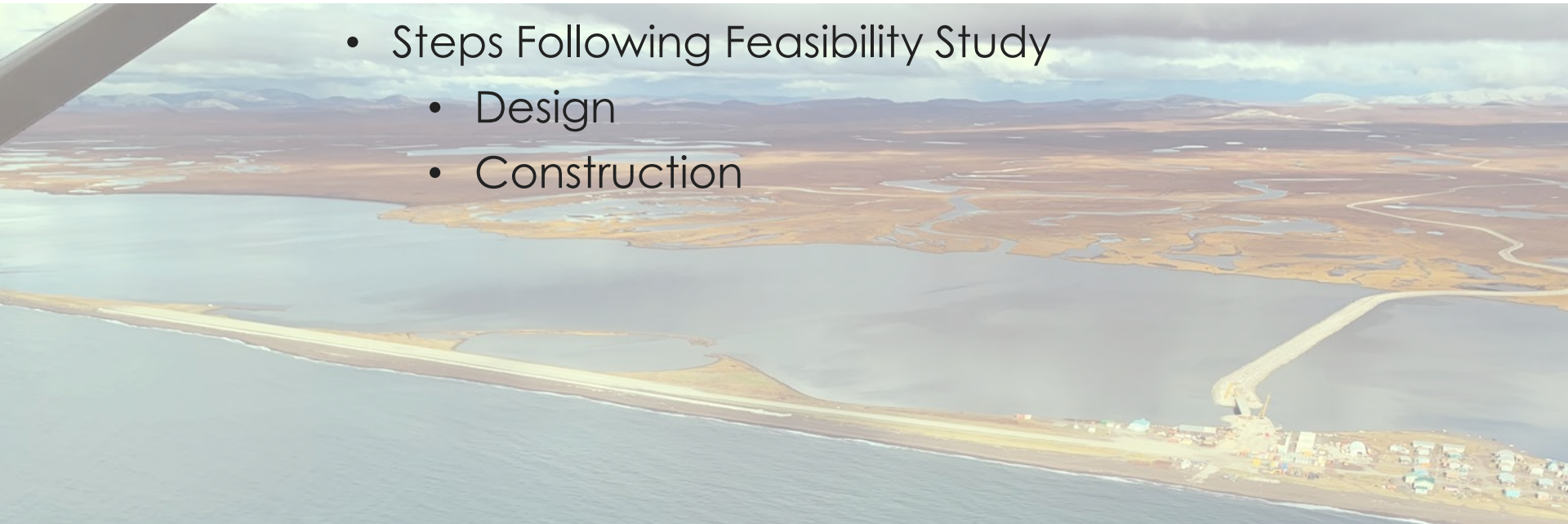
An aerial photograph of a coastal town built on a narrow peninsula. The town features several buildings and a paved area. The surrounding water is a deep blue, and the sky is a pale, clear blue. A large white rectangular overlay is positioned on the right side of the image, containing the title and a bulleted list.

What is a Feasibility Study ?

- Comprehensive study of an airport
- Does the airport serve community needs?
- Are there better alternatives to serve community?
- Environmental, socioeconomic, cost impacts
- Justify Funding Requests

Kivalina Airport Feasibility Study

- Threats to Kivalina's Airport
 - Erosion and Storm Surges
- Should Airport
 - Stay and be strengthened, or
 - Move inland?
- Select the best alternative
- Steps Following Feasibility Study
 - Design
 - Construction



Recent Airport Improvements

- 2001 Rehabilitate Runway
- 2010 Aeronautical Survey
- 2013 Acquire Snow Removal Equipment
- 2018 Airport Rehabilitation
 - Erosion Protection Project
 - Obligated to continue to operate runway till 2038



Feasibility Study Process

Existing Conditions, Inventory



Forecast Activity



★ Public Meeting #1

Alternatives



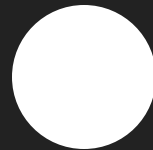
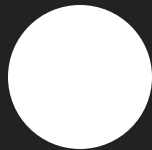
★ Public Meeting #2

Preferred Alternative



Future Engineering and Construction

Feasibility Study Elements



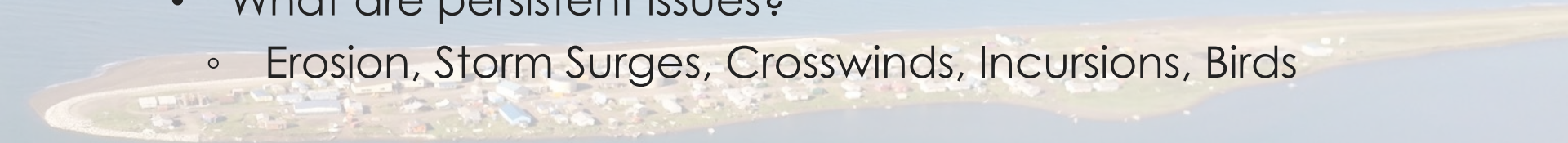
Public Involvement

- 2 Public Meetings
 - ★ Existing Conditions: What are the problems?
Alternative Assessment: How to solve them?
- Website
- Mailing List
- Public Announcements: Radio, Newspaper

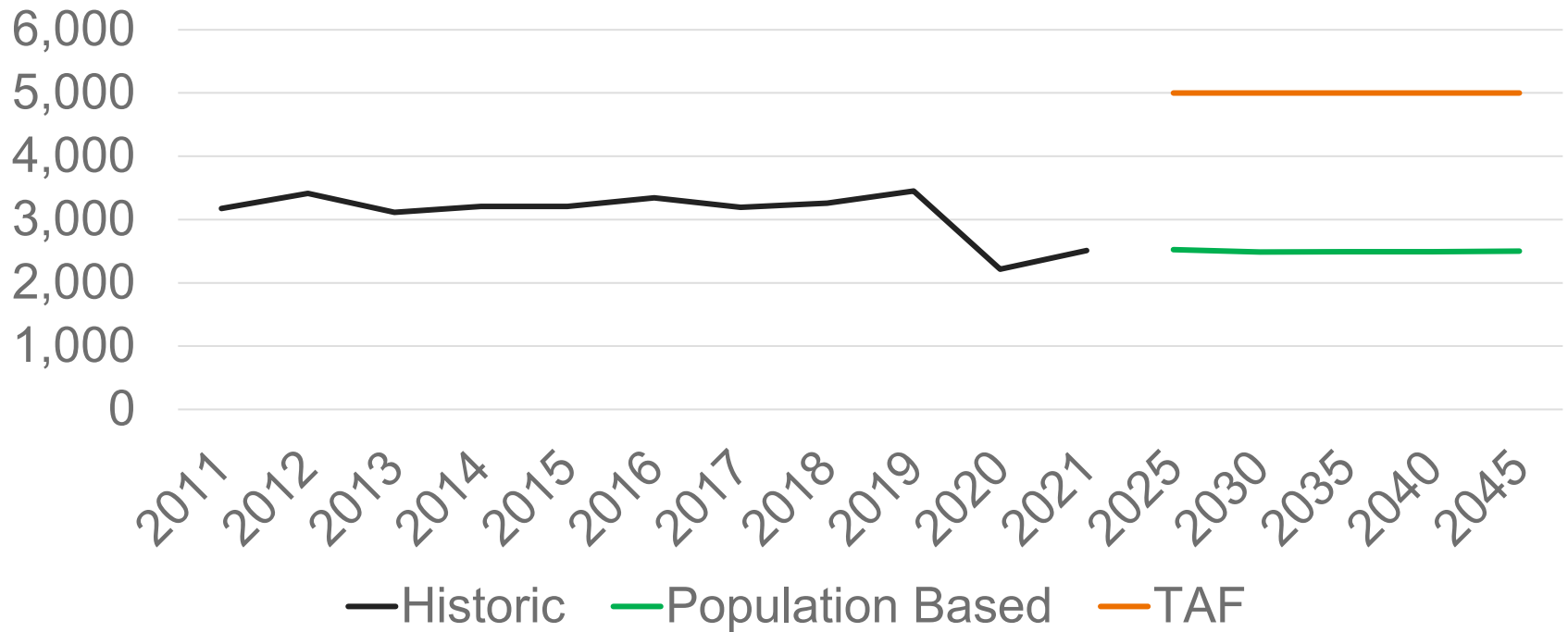


Inventory

- Nearing Completion
- What is on the Airport?
 - Lights, surface condition, weather reporting, support facilities
- What are persistent issues?
 - Erosion, Storm Surges, Crosswinds, Incursions, Birds



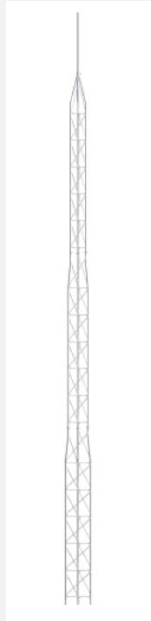
Forecast: Airport Operations



- Historically level
- Covid Dip
- Recent Rebound
- Critical Aircraft: Cessna C208B Grand Caravan

Wind Study

- Received Permission to Erect Temporary Wind Tower
- Measure winds near K-Hill
- Help evaluate suitability for an inland runway
- Connecting wind data with teachers, to allow school science projects

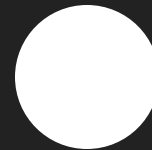
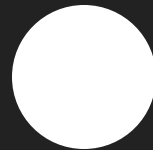


Environmental, Geotech, Hydrology

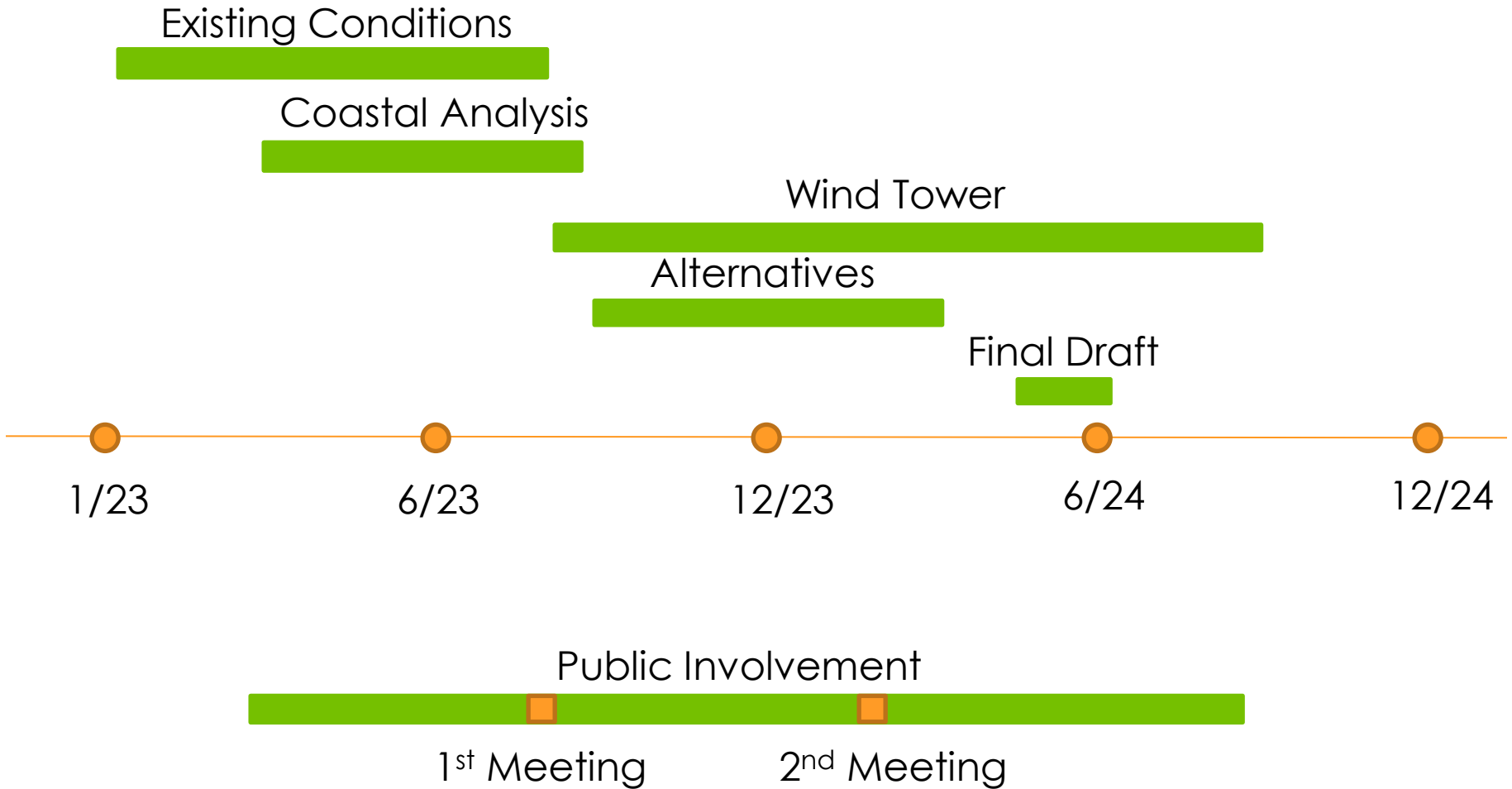
- Alternative Analysis will incorporate multiple rounds of screening
- Evaluate each alternative over multiple factors



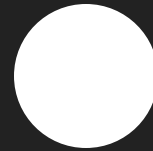
Schedule



Schedule



Alternatives

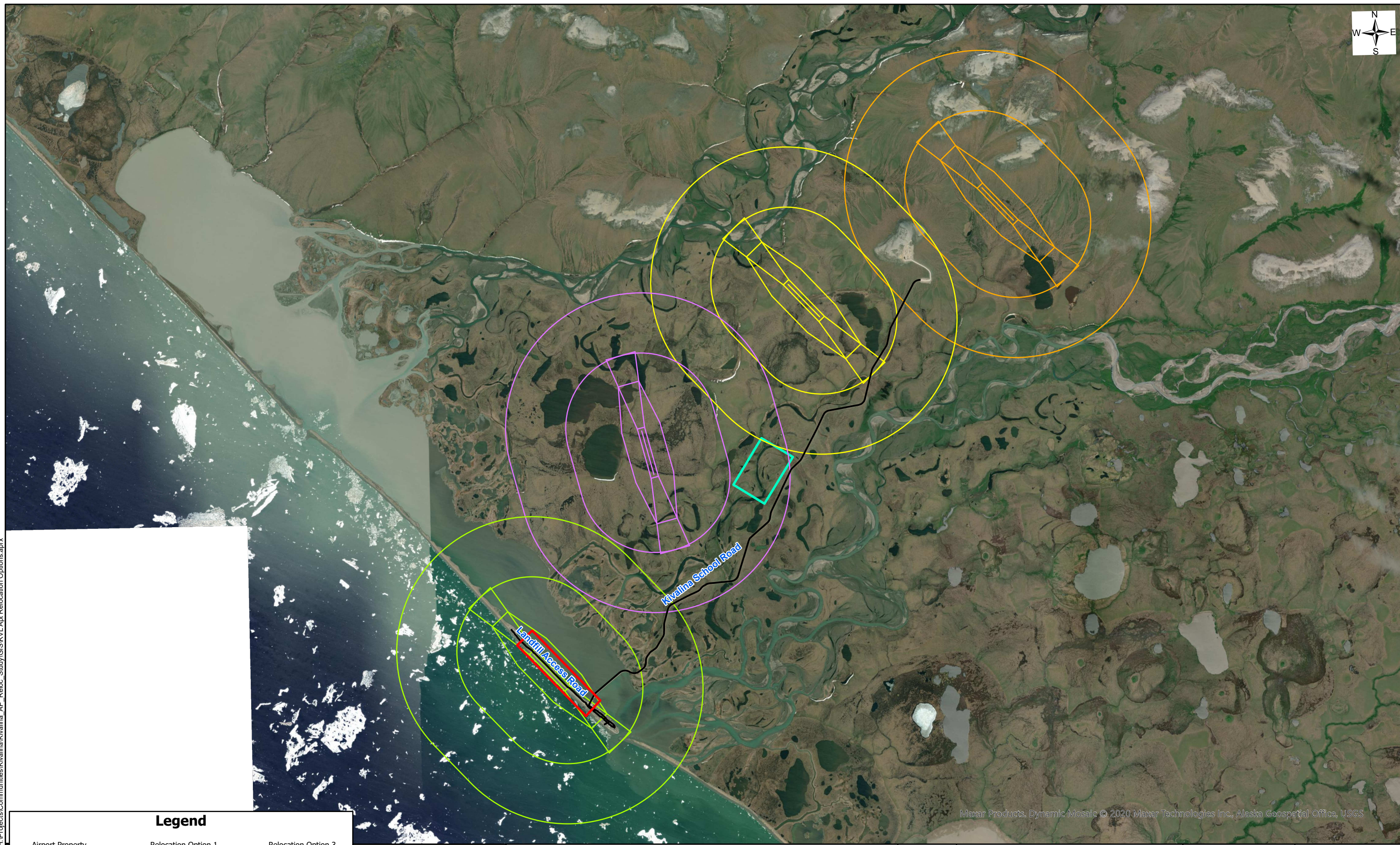


Alternatives

- No Action
- Reinforce Current Location
- Inland Locations

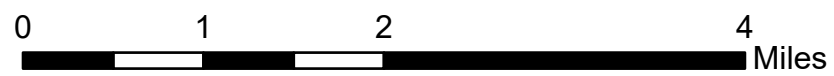


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Legend

- ▬ Airport Property Boundary
- ▬ Kivalina Area Roads
- ▬ Existing Airport Airspace (FAR Part 77)
- ▬ Relocation Option 1 Airport Airspace (FAR Part 77)
- ▬ Relocation Option 2 Airport Airspace (FAR Part 77)
- ▬ Relocation Option 3 Airport Airspace (FAR Part 77)
- ▭ Proposed Landfill Relocation Site



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STATE OF ALASKA
Department of Transportation and Public Facilities
2301 Peger Road Fairbanks, AK 99709

Date: July 2023

Figure 2a

Kivalina, Alaska

Questions & Answers



Questions and Answers

Poster Boards

- Write comments on posters around the room

Comment Sheets

- Complete today, or mail/email them in

Verbal Comments

- Discuss with a team member today!

Website

<https://dot.alaska.gov/nreg/kivalinaairport/>