



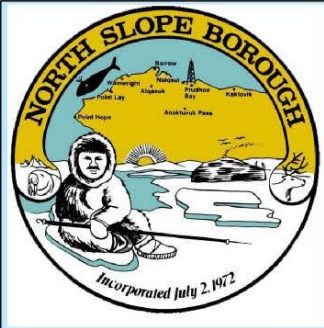
AGENDA

- North Slope Borough (NSB) 2017 – 2020 LiDAR and Imagery Program –
- Geospatial Data Management in Rural Alaska: Hosting Lidar for Decision Making at the North Slope Borough

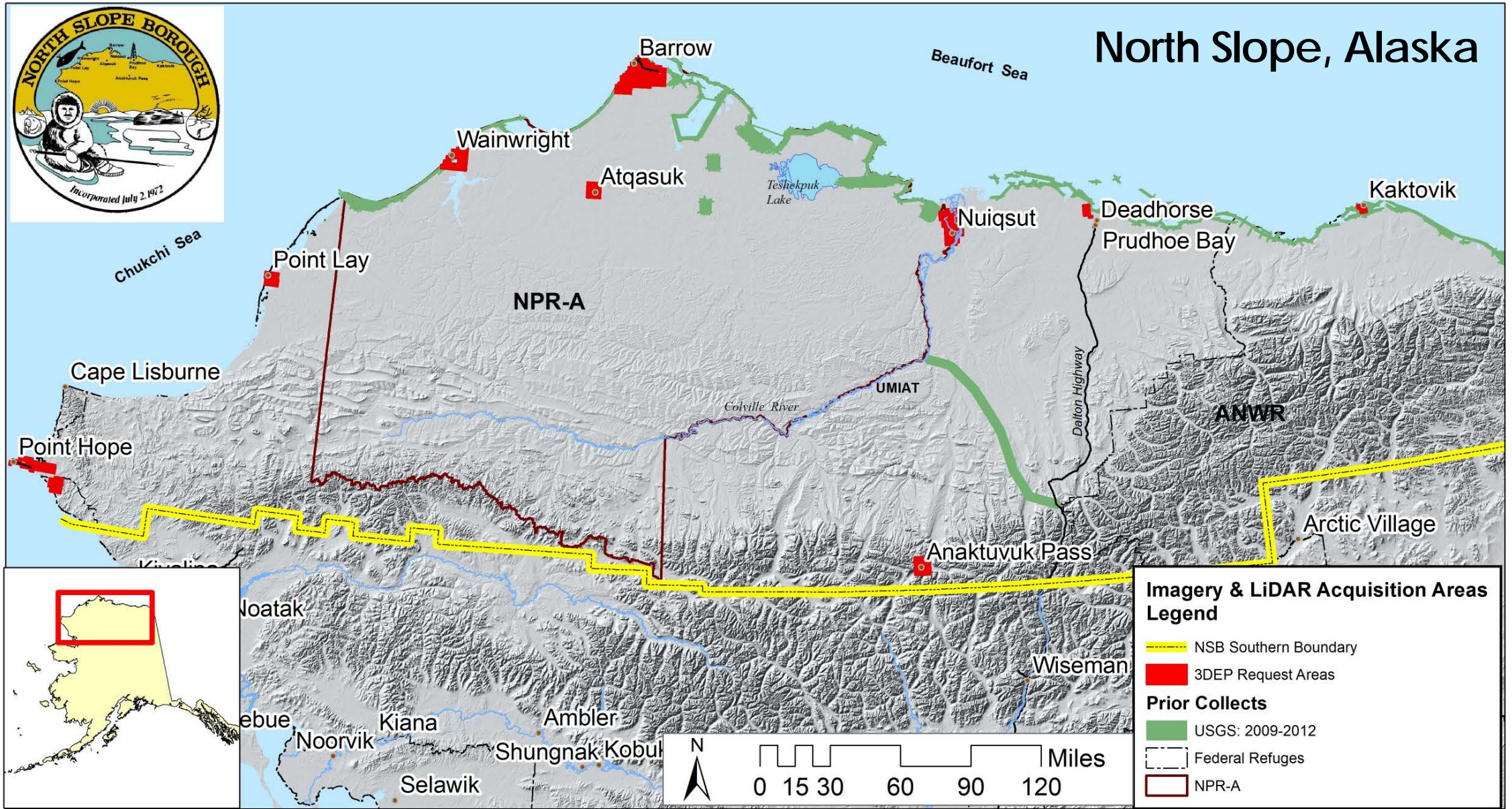
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December 2020



North Slope, Alaska

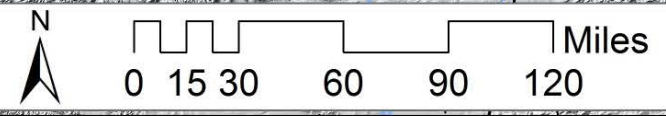


Imagery & LiDAR Acquisition Areas Legend

- NSB Southern Boundary
- 3DEP Request Areas

Prior Collects

- USGS: 2009-2012
- Federal Refuges
- NPR-A





NSB Imagery/Lidar History Lessons Learned:

- Develop a plan
- Engage with stakeholders
- Determine NSB Imagery - Lidar use and needs
- Explore Funding options
- Explore technical options
- Partnership opportunities





NSB Users – Hosting Imagery - Lidar for Decision Making at the North Slope Borough

USER GROUP INTERVIEWS

1. Administration & Finance
2. Planning
3. Public Safety
4. Risk & EOC
5. Public Works
6. Search and Rescue
7. Wildlife Management
8. Health
9. Heritage Center
10. Grants
11. Law
12. Mayor's Office

EXTERNAL STAKEHOLDERS

- Federal
- State
- Other

Needs

Specifications

Funding





Imagery and LiDAR is critical part of decision making in our everyday lives:

- Public Sector
- Commercial
- Private Sector

Why

Accurate & current basemap:

- Saves time & money for Field Work
- Improves public safety – responding, rescue, events, “line-of-sight” intelligence
- Quickly locate remote properties, trails, lakes & streams, facilities, roads, etc.
- Accurately assess properties
- Inventory assets
- Emergency management
- Planning support
- Capital improvements and infrastructure

Need for a Program:

- Continual Changes --- Flood, Development, Erosion, Storms

Borough Strategic Goals:

- NSB:
 - Growing Borough
 - Monitor assets
 - Locally manage assets and resources



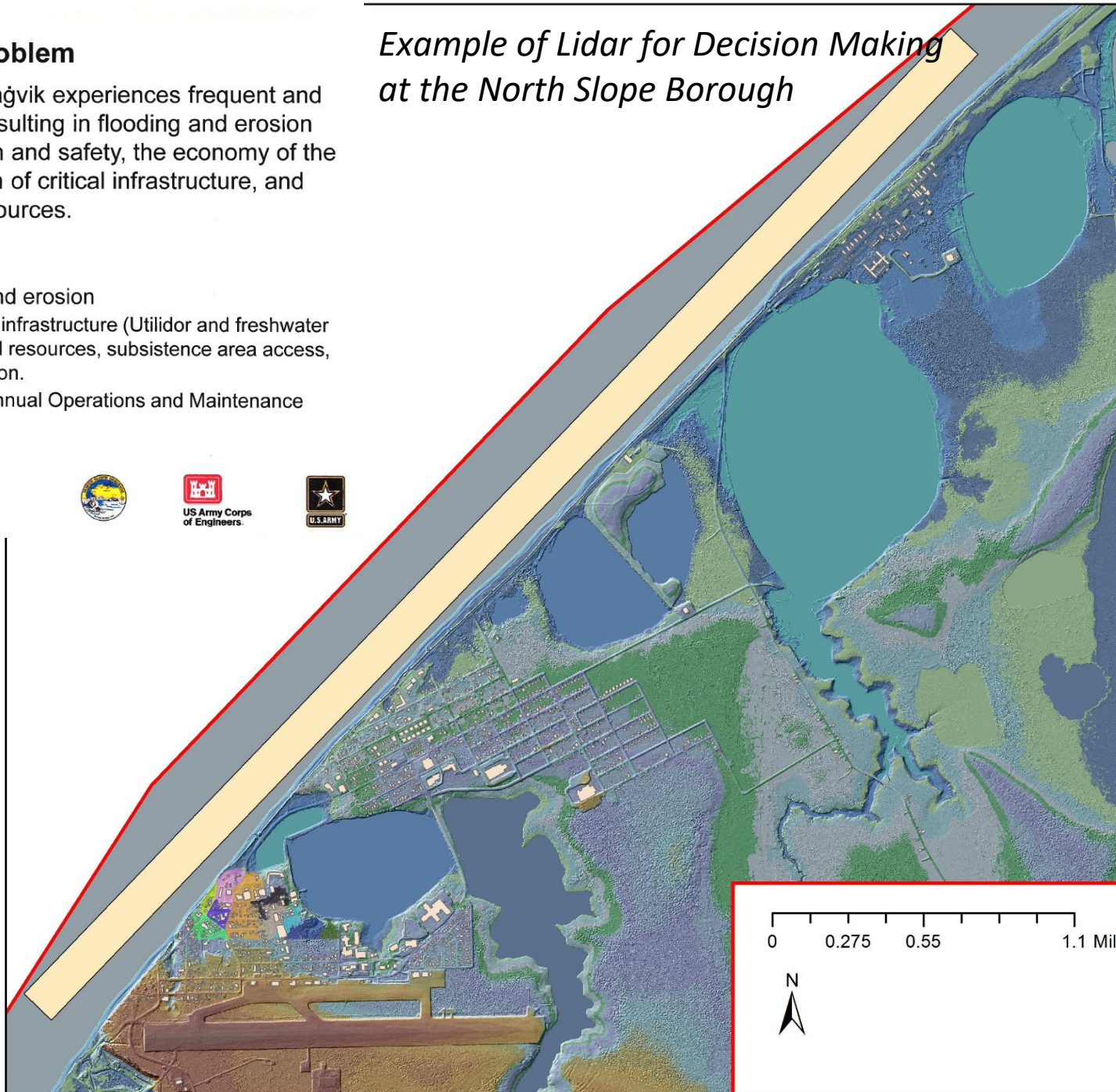
Problem

- **Problem Statement:** Utqiagvik experiences frequent and severe coastal storms, resulting in flooding and erosion that threaten public health and safety, the economy of the community, over \$1 billion of critical infrastructure, and cultural and historical resources.

- **Major issues:**

- Coastal storm flooding and erosion
 - Threatens life-sustaining infrastructure (Utilidor and freshwater lagoon), property, cultural resources, subsistence area access, landfill, and sewage lagoon.
 - Results in a significant annual Operations and Maintenance costs

Example of Lidar for Decision Making at the North Slope Borough





Conclusions

- LiDAR, for NSB – has been a “winner”:
 - provide a highly accurate base for other data acquisitions, and the Borough’s GIS
 - To assist in managing and mitigating environmental events
 - As a base for infrastructure management
- North Slope mapping needs can be aided by highly capable remote sensing technology options ranging in scale and type.

Questions?

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Available NSB reports:

1. **NSB_NSB Recurring Aerial Imagery & LiDAR Plan.pdf**
2. **NSB_Lidar Pilot Dataset Review and Applications.pdf**