NOAA OFFICE FOR COASTAL MANAGEMENT

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Geospatial Data Driven Decision Making for Community Climate Resilience
2023 Alaska GeoSummit

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Alaska's Decision-Making Context

- Geographic distribution
- Jurisdictions
- Lack of bandwidth and geospatial capacity
- Tribal equity, co-production, and data sovereignty
- Climate hazards – 144 threatened ANVs

Statewide consistency

Takes into account local uniqueness

Decision-Ready Data

- Decision-ready data must fit the specifications of the **user need** and be **FAIR** (findable, accessible, interoperable, reusable).

- For Alaska, we have too many data needs to collect and re-collect, so we must also be **strategic** and **leverage resources**.

Findable

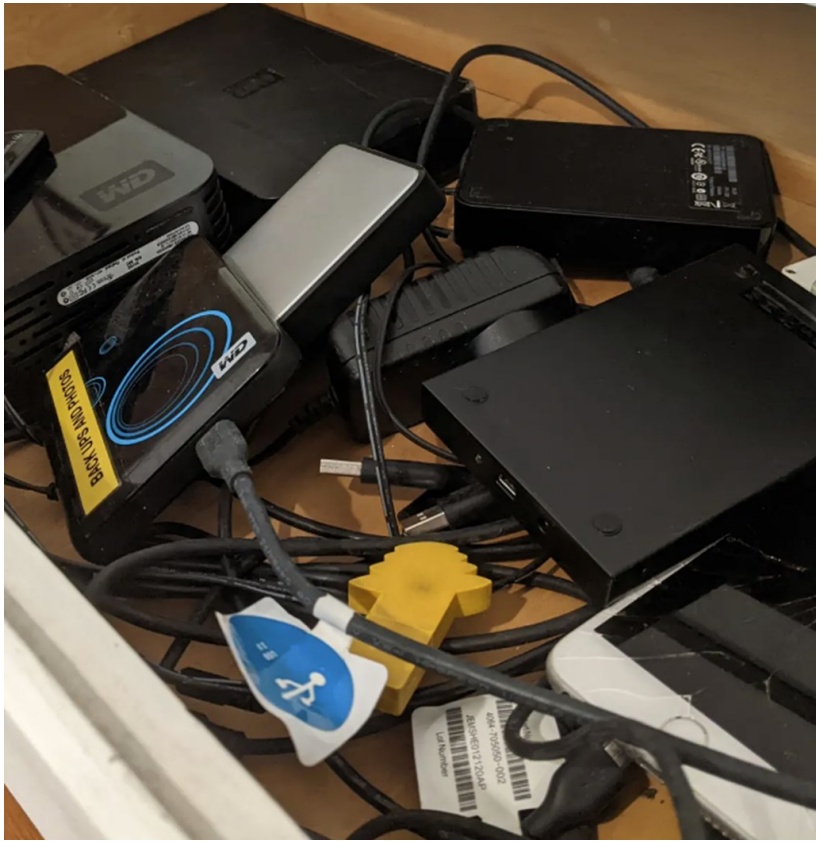
Accessible

Interoperable

Reusable

Decision-Ready Data

- We can’t just be adding hard drives to our pile or reports to the shelf.
- Data and information need to feed directly into action.



Alaska Geospatial Council

- **Coordination**: Agency acquisition planning; developing Alaska-centric specs
- **Outreach**: Co-development of AOIs for collections; feedback on priorities for projects
- **Data sharing**: public data access

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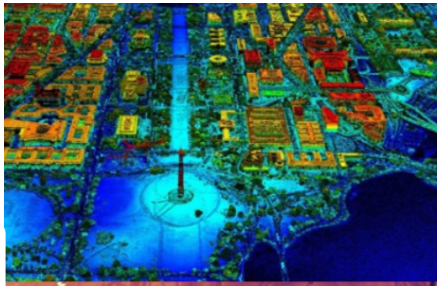
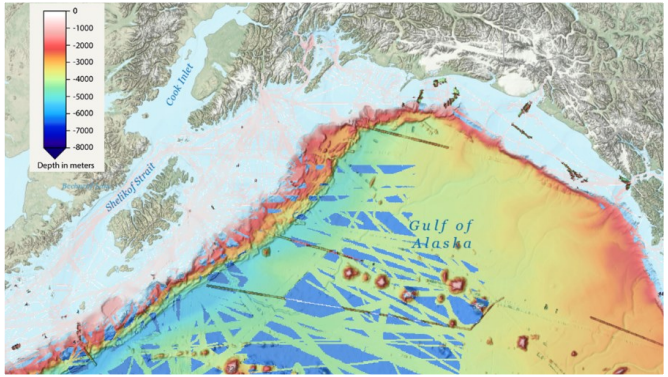
Foundational Data Sets

- Imagery
- Elevation
- Bathymetry
- Water Levels





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NOAA Digital Coast Fellow Story Map

2023 Lidar Acquisition Highlight

State of Alaska – FEMA Lidar Project

- Over 50 communities completed!

See other acquisitions planned and in progress in the AGC data acquisition dashboard.

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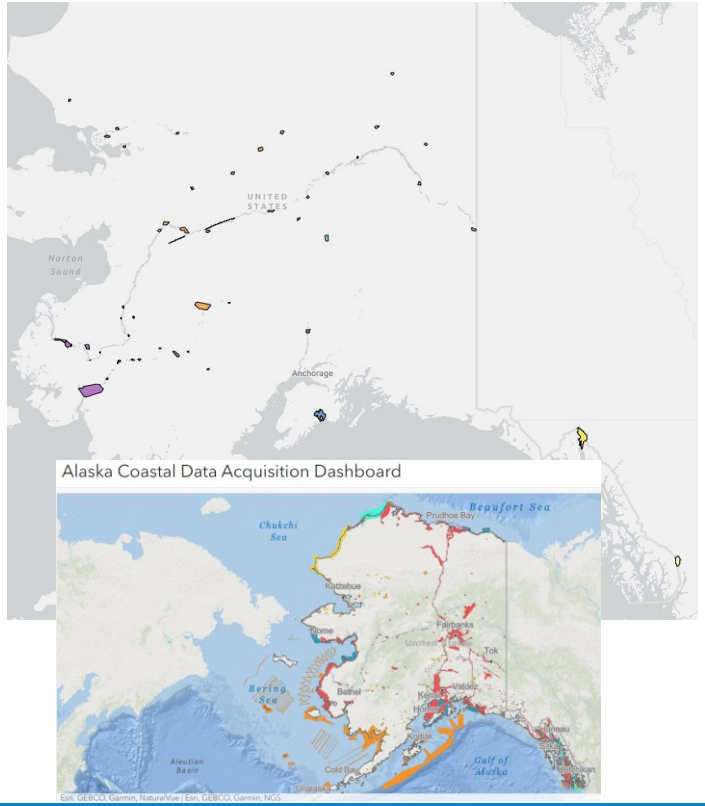
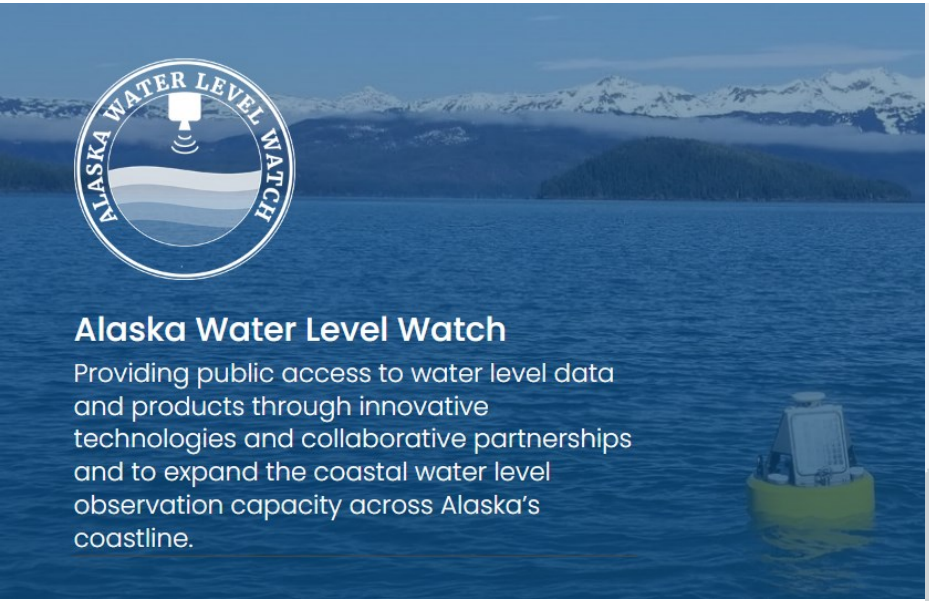
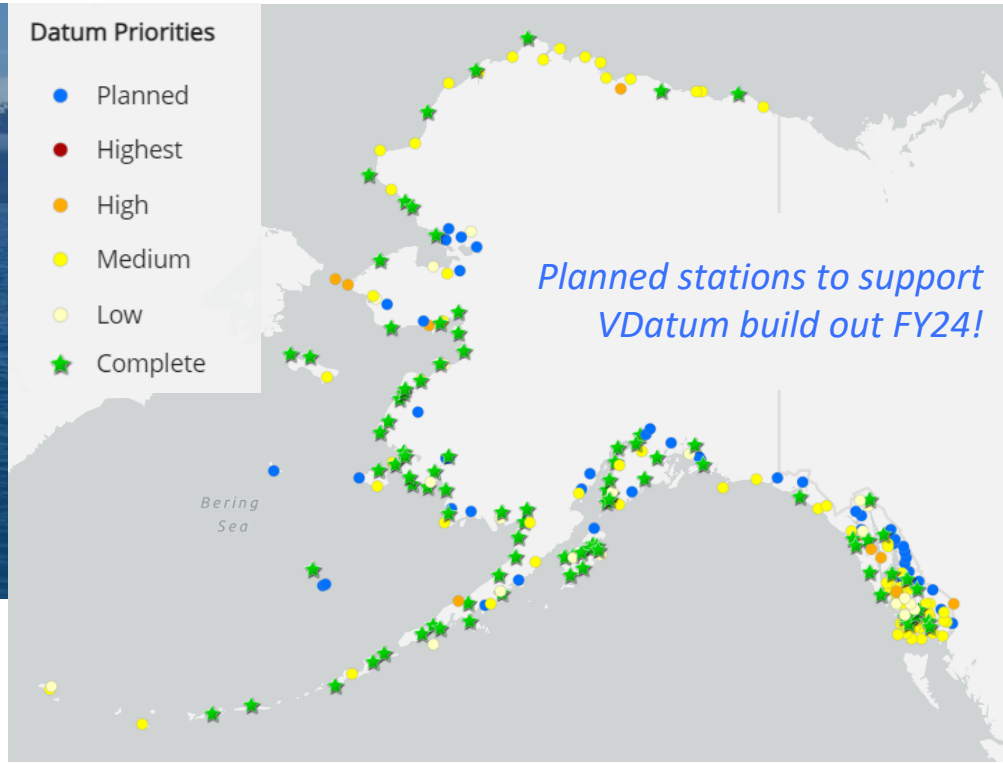


Alaska VDatum and Water Levels



awlw.aoos.org



Alaska's Coastal Management Issues

- Coastal geohazards (**coastal flooding, erosion, and permafrost degradation**; tsunami; landslide generated tsunami; landslides; atmospheric rivers; glacier retreat; jokulhlaup)
- Fisheries collapse, change (commercial, subsistence, sport)
- Tourism opportunity, change
- Aquaculture, mariculture
- Maritime transport, navigation safety (vessel tracking, oil spill, transport on ice)
- Harmful algal blooms
- Ocean acidification
- Energy, alternative energy
- Water systems, security (glacial fed, drought, groundwater, saltwater intrusion)
- Land management (ownership, development, relocation, managed retreat, conservation, 14c3 reconveyance)

Risk Assessment Program Scoping

A risk assessment defined as a scientific and engineering assessment of the **magnitude and timing of threats** from flooding, erosion, and permafrost degradation hazards on the natural and built environment, social and cultural implications, and an **analysis of potential solutions**.

Risk Assessment Program Scoping

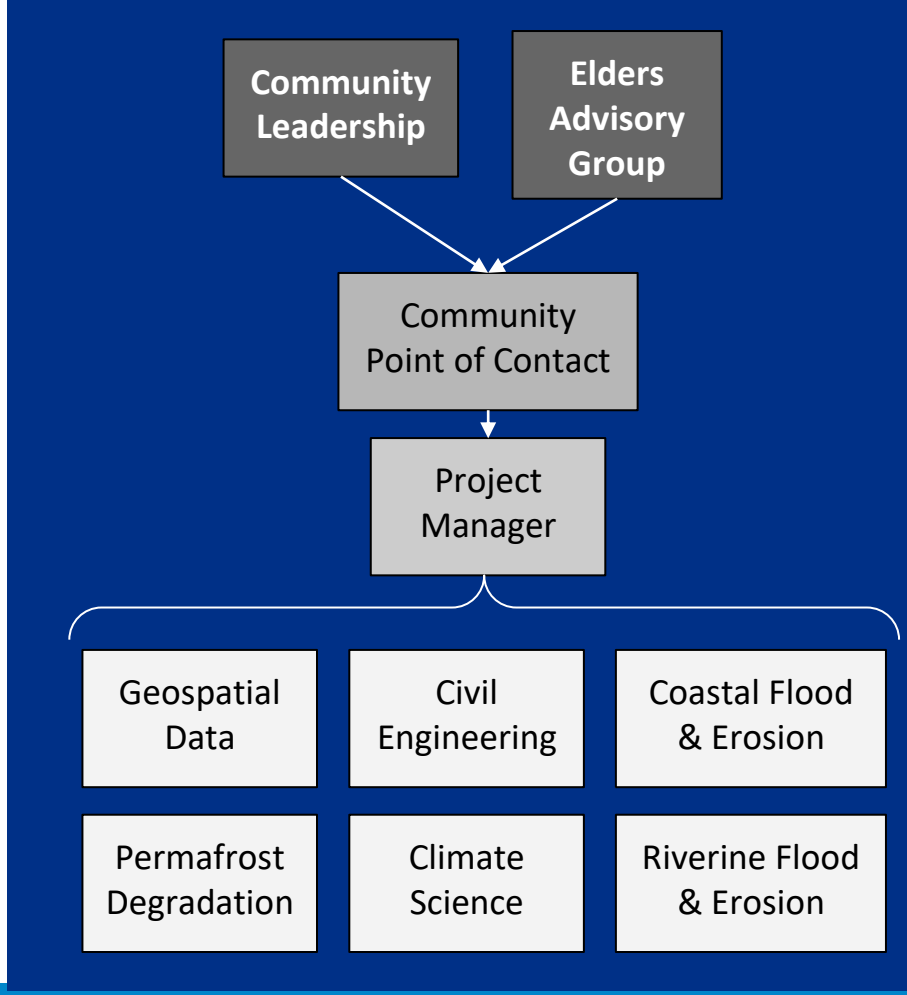
ALASKA NATIVE TRIBAL HEALTH CONSORTIUM

- Voluntary opt-in program for communities to gain technical assistance for addressing **flood, erosion, and permafrost** issues
- Data collection
- Risk assessment
- Monitoring
- Community adaptation strategies
  - Protection in-place
  - Managed retreat
  - Relocation

Risk Assessment Program Scoping

Science and Technical Advisory Councils

- Currently SMEs work in **ad hoc** manner to address reviews and individual requests for technical assistance.
- Envision a coordinated structure with **staff support for project management** and **dedicated SME time**.



Risk Assessment Program Scoping

- Collect and **manage** relevant **geospatial data sets** (including infrastructure).
- Create **standards and guidance** for risk assessment science and community co-production.
- **Community is a part of the process**, so results feed directly into decision-making and ultimately implementation.

Thank you

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Your Alaska Connection to the
NOAA Digital Coast

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