

NOAA OFFICE FOR COASTAL MANAGEMENT

Jacquelyn (Jaci) Overbeck, Max Neale, and Leslie Jones

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

October 26, 2023

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

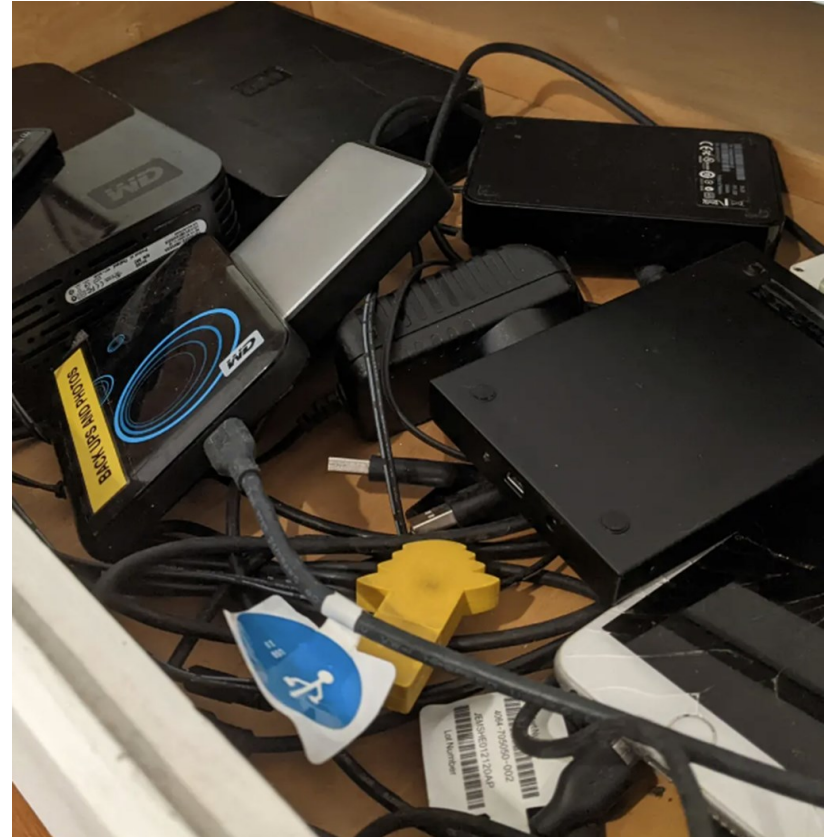


Reusable



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 AOs for collections; feedback on priorities for projects
- **Data sharing:** public data access



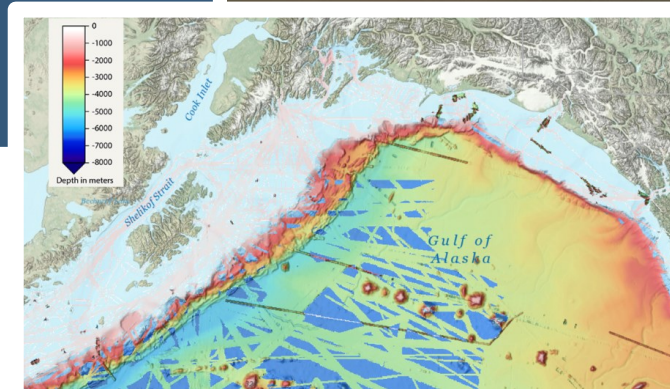
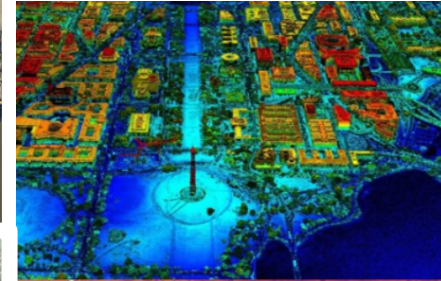
The screenshot shows the website for the Alaska Geospatial Council's Coastal & Ocean Working Group. At the top, there is a navigation bar with links for "AGC Coastal & Ocean WG", "Initiatives", "Summit", "News and Quarterly Meetings", "Geoportal", and "Alaska Geospatial Council". Below the navigation bar is a large banner image of a snowy mountain range overlooking a body of water. The text "Coastal & Ocean Working Group" is overlaid on the image in a large, white, sans-serif font. Below the banner, there is a section with a map of Alaska and the text "Alaska Geospatial Council". To the right of the map, there is a paragraph of text: "The Alaska Geospatial Council provides inter-agency coordination between local, state, federal, tribal, academic and private organizations on geospatial initiatives. Through effective collaboration the council aims to improve the availability and quality of geospatial information and ensure it is publicly available to support data driven decisions." Below this section, there is a white box with the text: "Building an Alaska-based community to support state and federal initiatives aimed at completing statewide coastal, shoreline and ocean mapping".

agc-coastal-soa-dnr.hub.arcgis

Foundational Data Sets



- Imagery
- Elevation
- Bathymetry
- Water Levels



arcg.is/1KO8jn0
NOAA Digital Coast Fellow Story Map



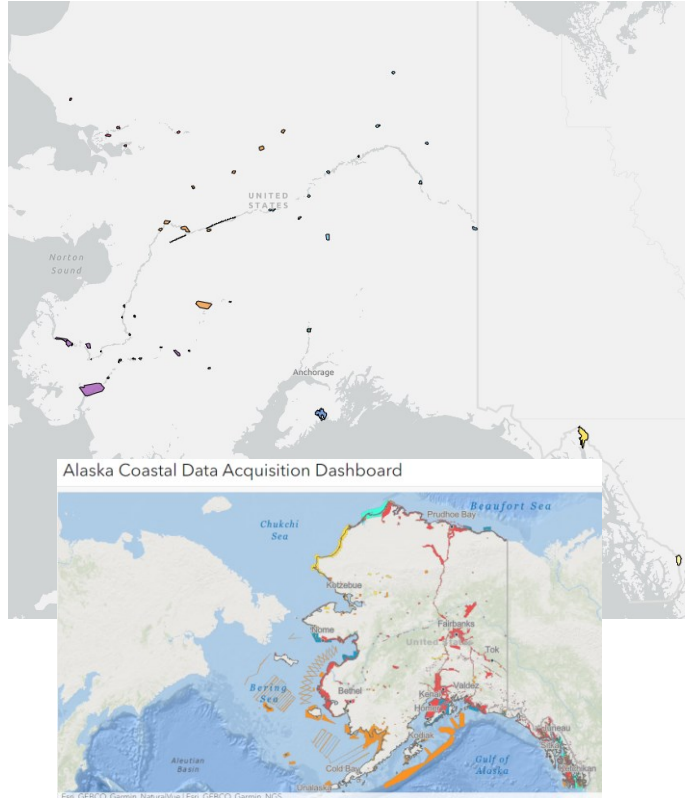
2023 Lidar Acquisition Highlight

State of Alaska – FEMA Lidar Project

- Over 50 communities completed!

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

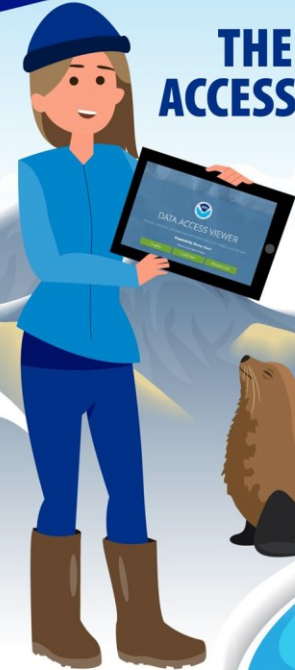
agc-coastal-soa-dnr.hub.arcgis



Favorite Product?



THE DATA ACCESS VIEWER



Alaska VDatum and Water Levels



Alaska Water Level Watch

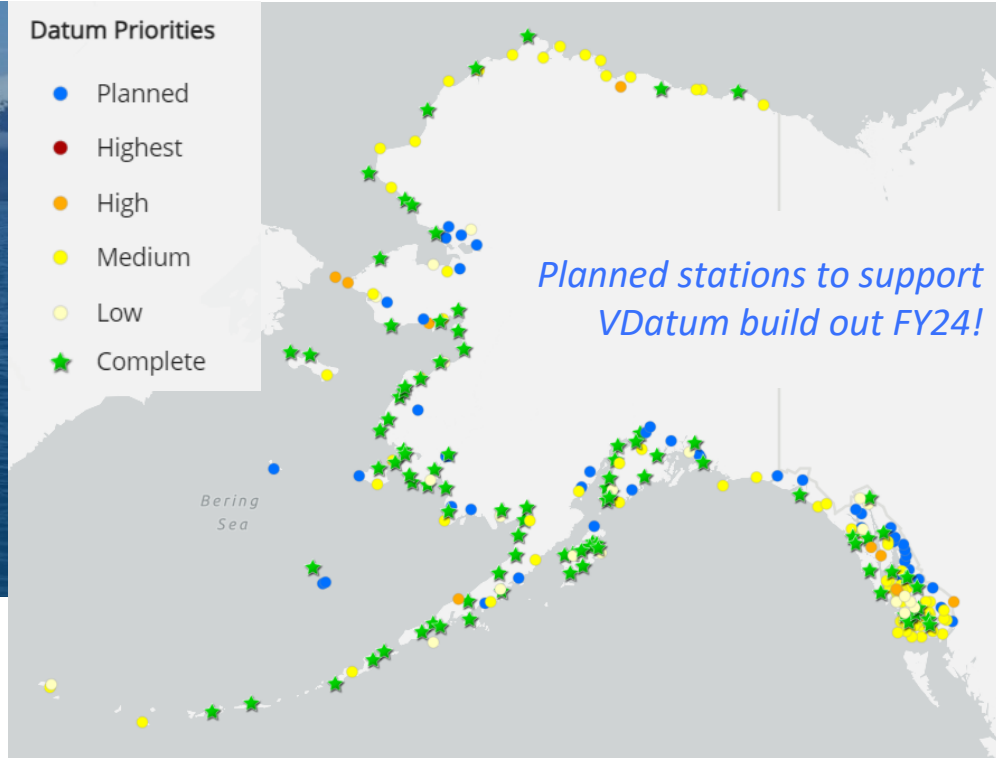
Providing public access to water level data and products through innovative technologies and collaborative partnerships and to expand the coastal water level observation capacity across Alaska's coastline.



awlw.aocos.org

Datum Priorities

- Planned
- Highest
- High
- Medium
- Low
- ★ Complete



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

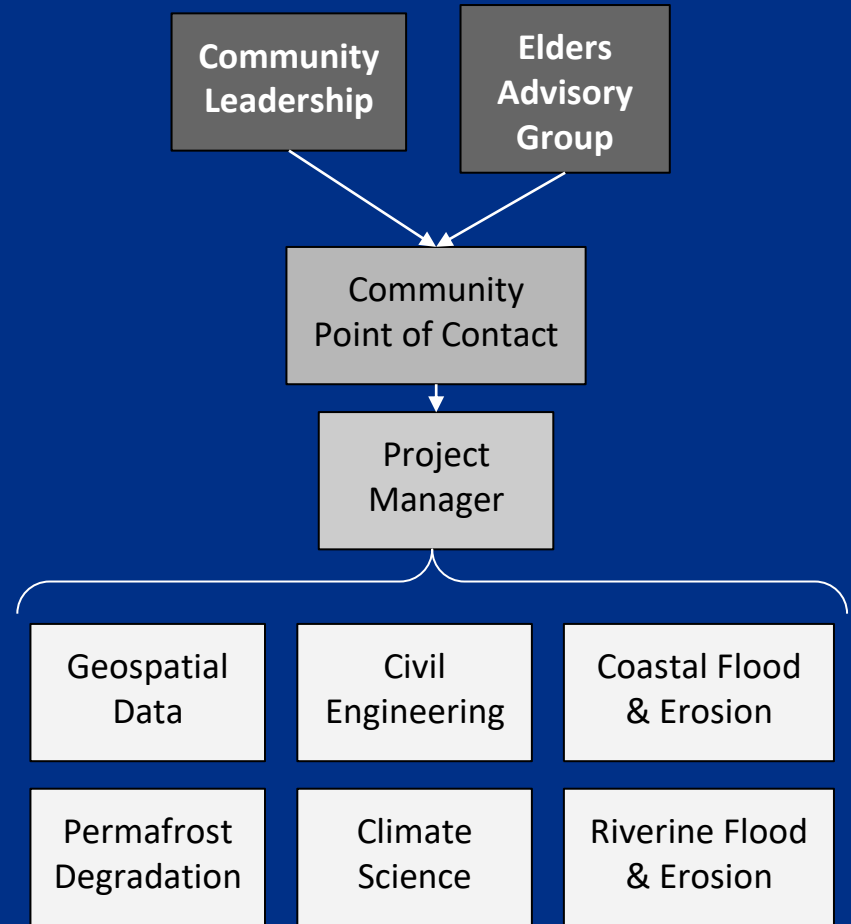


- Voluntary opt-in program for communities to gain technical assistance for addressing **flood, erosion, and permafrost** issues
- Data collection
- Risk assessment
- Monitoring
- Community adaptation strategies
 - Protection in-place
 - Managed retreat
 - Relocation

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

jacquelyn.overbeck@noaa.gov

**Your Alaska Connection to the
NOAA Digital Coast**

Co-chair of the Alaska Geospatial Council
Coastal & Ocean Working Group
agc-coastal-soa-dnr.hub.arcgis



**There's more data available across
Alaska than you might expect**
(and a LOT more to come).



STAY TUNED!

