



Geographic Response Strategies to GIS Project Update

Prince William Sound Area Committee Meeting
March 14, 2024





Topics



- **GRS to GIS Project overview**
- **Timeline**
- **Current Status**
 - **Data (boom lines, “supplemental points”)**
 - **Tier I Validation Form & Process**
- **Tier II Validation schedule**



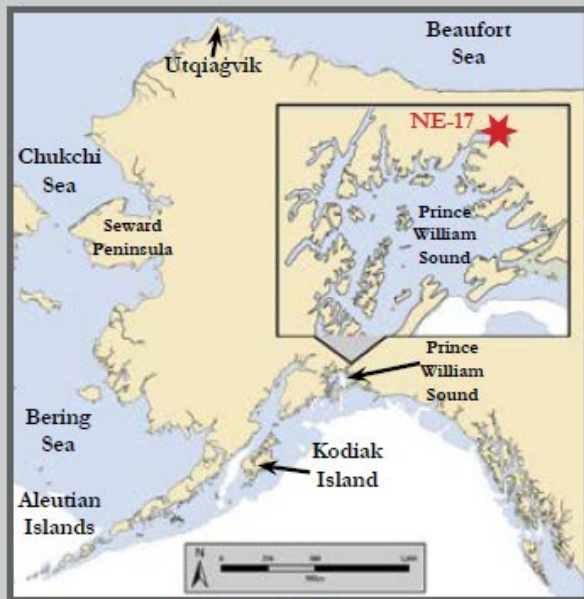
What is a GRS?

MERMAN 4.C.3.

h. Geographic Response Strategies (GRS).

(1) Formerly referred to as Geographic Response Plans, Geographic Response Strategies (GRS) constitute one of the most critical components of an ACP. GRS provide tactical booming and response strategies within the first 24-48 hours of a response. GRS provide tactical options for incorporation into an Incident Action Plan (IAP).

Valdez Duck Flats, NE-17



Location of NE-17

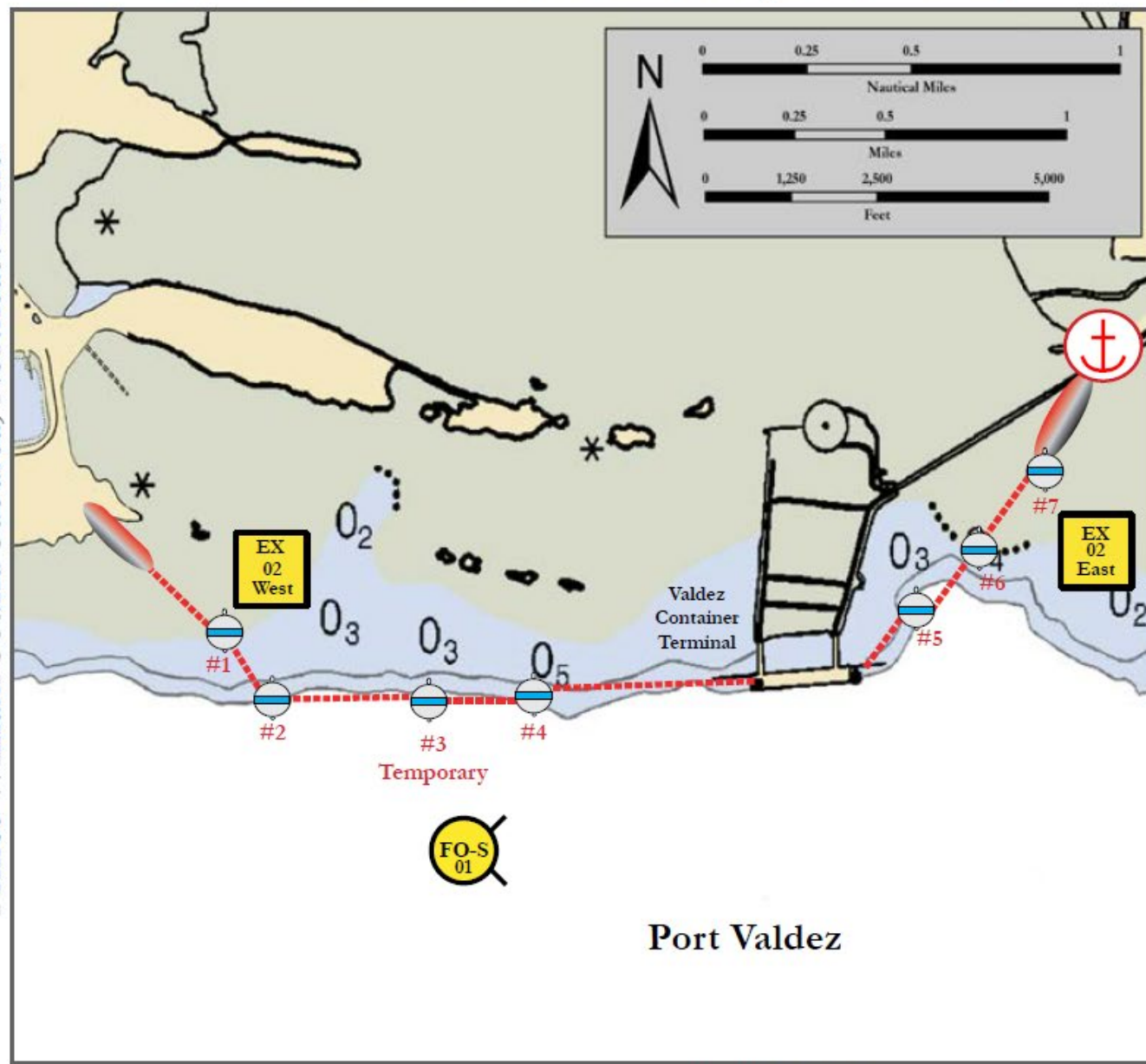


Valdez Duck Flats, View Northwest

Map
&
Photo
Legend

	Exclusion Booming		Free-Oil Containment and Recovery, Shallow Water
	Buoy		Shore-Seal Boom
	Anchor		Protected-Water Boom



Geographic Response Strategies for Prince William Sound Subarea, Northeast Zone



Map is not intended for navigational use.

Lon. 146° 18' 36.7" W
Lat. 61° 7' 22.0" N

Depths in Fathoms

ID	Location and Description	Response Strategy	Implementation	Response Resources	Staging Area	Site Access	Resources Protected (months)	Special Considerations
NE-17-01 	Valdez Duck Flats Nearshore waters in the general area of: Lat. 61° 05.7' N Lon. 146° 18.0' W	Free-oil Recovery Maximize free-oil recovery in the offshore & nearshore environment of Valdez Duck Flats depending on spill location and trajectory.	Deploy nearshore free-oil recovery strike teams upwind and up current of Valdez Duck Flats. Use aerial surveillance to locate incoming slicks.	Multiple nearshore free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.	Valdez	Via marine waters Chart 16707-1	Same as NE-17-02	Vessel master should have local knowledge. Use extreme caution, shoal waters with numerous reefs and rocks.
NE-17-02 	Valdez Duck Flats Utilize the SERVS anchoring buoys in the vicinity of: Lat. 61° 07.52' N Lon. 146° 18.77' W * There are 3 permanently installed anchoring buoys and 1 temporary buoy west of the Container Dock. * No anchors are permanently installed east of the Container Dock—those anchors are maintained with the pre-staged boom and are to be set when the boom is deployed.	Exclusion Exclude oil from impacting the intertidal area around the Valdez Duck Flats.	Deploy anchors and boom using skiffs with jet drives (class 6). Use the anchor points marked by the SERVS orange buoys in both arrays. Deploy array (west) (a) first beginning at the west end of the Container Dock using five segments of protected-water boom 1) 847 ft. 2) 1087 ft. 3) 1084 ft. 4) 1204 ft. 5) 238 ft. And 200 ft. of tidal-seal boom. For array (east) (b), place three segments of protected-water boom 1) 918 2) 623 3) 1227 And 200 ft. of tidal-seal boom. <u>Boom lengths:</u> (west) a. 4460 ft. protected-water boom 200 ft. tidal-seal boom (east) b. 2768 ft. protected-water boom 200 ft. tidal-seal boom	Deployment Equipment 7400 ft. protected-water boom 400 ft. tidal-seal boom Vessels 2 ea. Class 6 Personnel/Shift 4 ea. Vessel crew 2 ea. Spill techs on the dock (6 total) Tending Vessels 2 ea. Class 6 Personnel/Shift 4 ea. Vessel crew 2 ea. Spill techs on the dock (6 total)	SERVS Dock/Valdez	Via marine waters. Chart 16707-1	Birds-waterfowl concentration Habitat-marsh, sheltered tidal flats Human use-sport fishing (May-Sept.)	Vessel master should have local knowledge. REPORT any cultural resources found during operations to FOSC Historic Properties Specialist. Adapted from the SERVS Valdez Duck Flats Protection Plan. Deployed: Strategy deployed annually. Deployment history available at SERVS. Site surveyed: West dock strategy Tested: 17 June 17 SERVS Deployment East dock strategy Tested: 17 June 17 SERVS Deployment



GRS to GIS Project



What: Convert ~721 GRS from PDFs to GIS-based products, make web-accessible (ERMA), and propose updates via mobile field app

Why? Increase the utility of data

Simplify and facilitate efficient proposals and validations

Facilitate involvement of interested parties

Improve the maintenance of GRS



Project Timeline



- Finish data work (boom lines, supplemental points) (ADEC) – early spring
- Finalize Tier I Validation interactive form & process (USCG) – early spring
- Update mobile app with most recent data layers (RPI) – spring
- Tier I Validations (USCG, wildlife agencies) – spring
- Tier II Validations (USCG) – summer
- Begin tackling GRS update backlog (PWS, CI) (ADEC) - summer
- Training for SEAK, PWS (USCG, ADEC) – late summer/early fall
- Review proposed GRS updates from Tier I & II validations (GRS SC) – fall, winter
- Open up system for public use – spring 2025

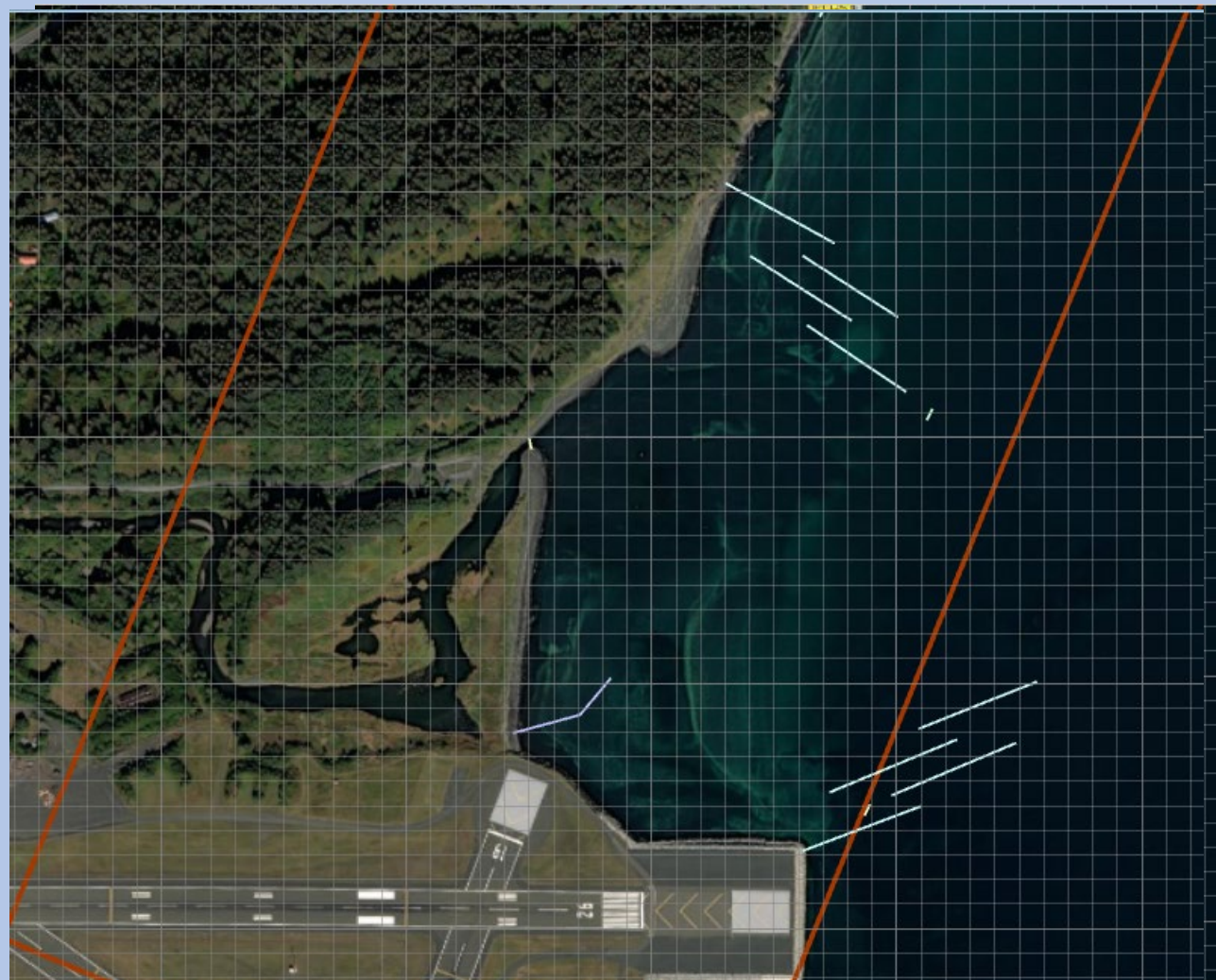


Current Status



Boom line digitization - 50 of 79 GRSs targeted for Tier II Validation in 2024 done (ADEC)

Kodiak Island, Buskin River (K-E-01)

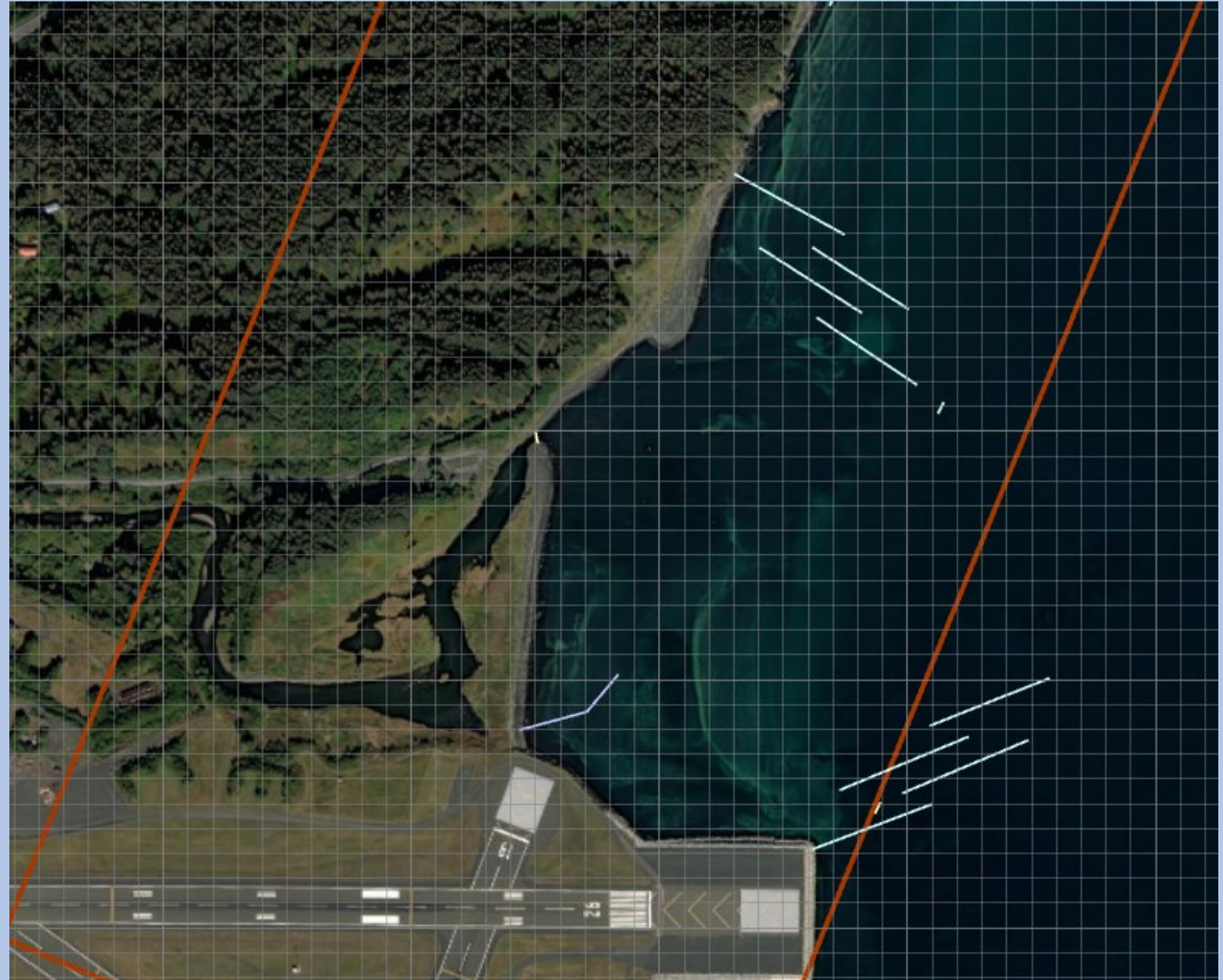




Current Status

Boom line digitization - 50 of 79 GRSs targeted for Tier II Validation in 2024 done (ADEC)

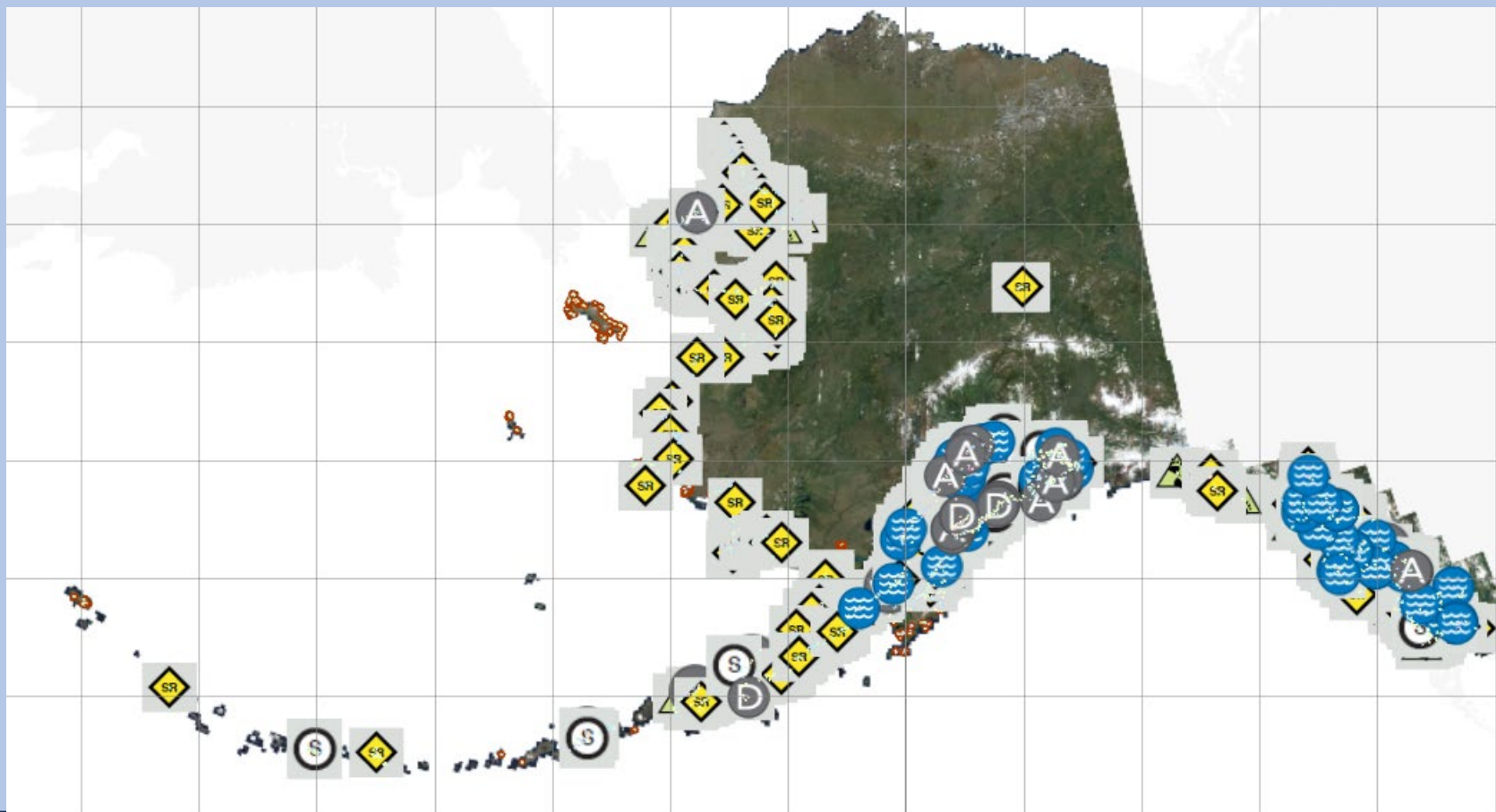
Kodiak Island, Buskin River (K-E-01)





Current Status

“Supplemental Point” digitization – 670 of 721 GRSs (> 800 features) from PDF maps not in original GIS layer (UAF under contract from CIRCAC)





Current Status

Tier I Validation Interactive Form & Process – nearing completion

**GRS Validation – Tier 1
Desktop**

Tier 1 GRS validations should be completed in an office or workshop setting. These validations can be supplemented with computer simulations.

Setting up for a Tier 1 Validation

1. Determine GRS to be validated IAW Tier 1 Validation Assignments List
2. Enable the following layers in Arctic ERMA:
 - a. Facility regions: Sector Anchorage Facility Regions (AK DCRA)
 - b. Bulk fuel facilities: Alaska Bulk Fuel Inventory Facilities (AK DCCED, 2020)
 - c. Vessel traffic: 2021 Global Shipping Density (MarineTraffic)
 - d. GRS locations: Geographic Response Strategies (ADEC)
 - e. GRS tactics: Draft AK GRS Updates – Live
 - f. GRS supplemental layer: (Layer Name TBD)
 - g. GRS boom line layer: (Layer Name TBD)
 - h. Critical Maritime Infrastructure: National Maritime Infrastructure (USCG)
 - i. Drinking water: Drinking Water Sources (HSIP 2015)
 - j. Water intakes: Water Intakes (HSIP 2015)
 - k. Aquatic farming: Aquatic Farming Operations (ADFG, 2021)
 - l. Wildlife Layers: (Bookmarked wildlife layer TBD from Liza)
3. Access the pdf version of the GRS on the ADEC website

Conduct the Tier 1 Validation

Name: Date:

GRS being Validated: Validation Tier:

Administrative Considerations

1. Does the name of the GRS polygon match the name of the PDF GRS? Yes No
2. Does the assigned name of the GRS polygon accurately convey the GRS location? Yes No

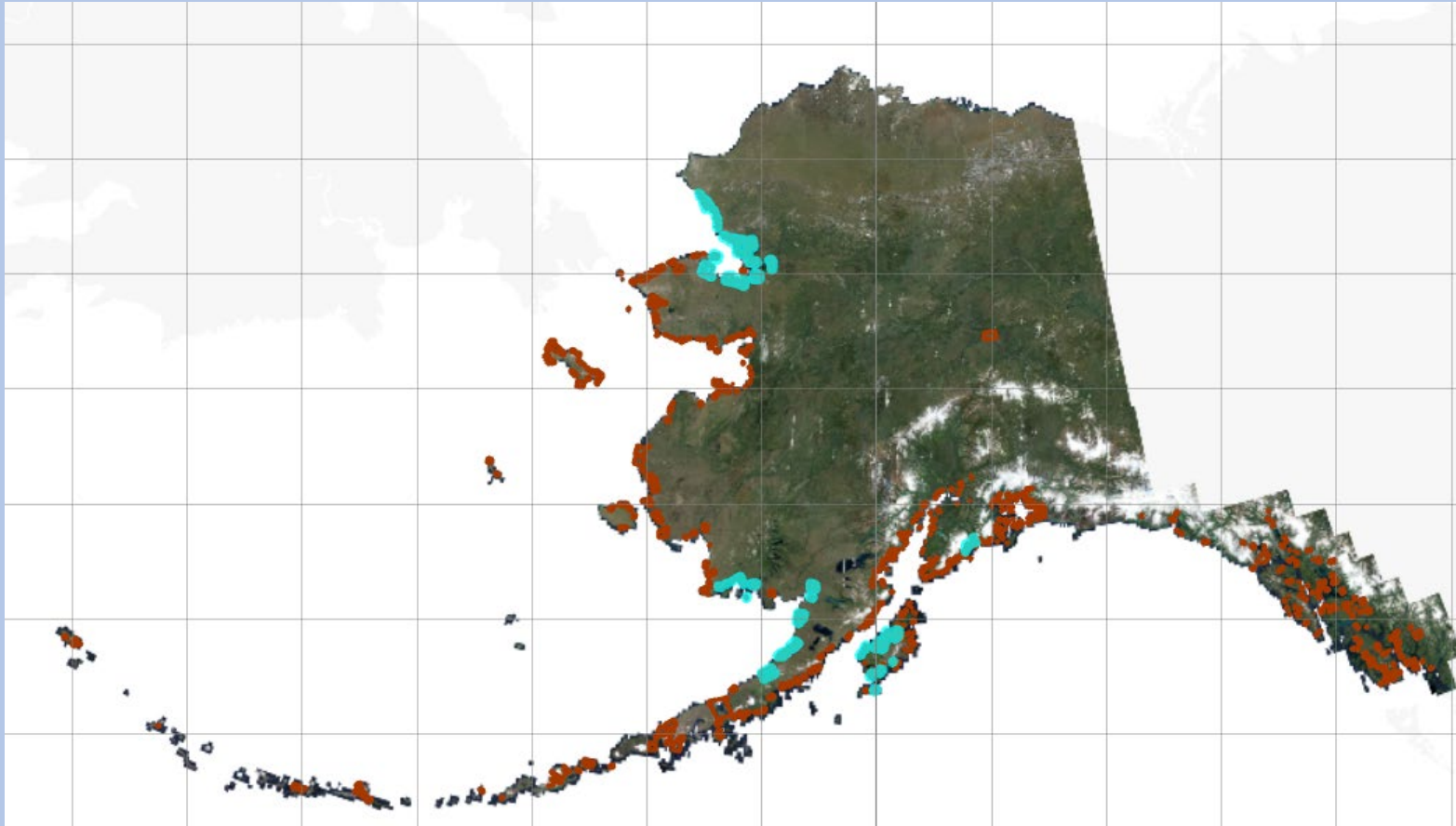
Offshore Threat Considerations

1. Considering vessel traffic and current data, do existing tactics adequately prevent product from traveling into existing rivers? Yes No
2. Considering vessel traffic and current data, do existing tactics adequately prevent product from reaching sensitive shorelines? Yes No
3. Considering vessel traffic and current data, do existing tactics adequately prevent product from reaching drinking water sources? Yes No

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Tier II Validation Schedule



Seward (10): May 13-17
Bristol Bay (16): late June
NW Arctic (29): July
Kodiak (24): August



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