

DI-04-01, Goodhope Bay and DI-04-02, Sea Buoy Anchorage.



L-04-01, Red Dog Mine Port Facilities.

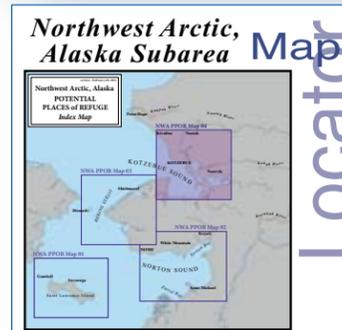


This is not intended for navigational use.

Soundings in fathoms

Potential Places of Refuge for Northwest Arctic Alaska Subarea

| Stakeholders for PPOR Zone 04 of the Northwest Arctic Alaska Subarea | | | |
|--|--|----------------------------------|--------------------|
| Year-2011 | Contact | Year-2011 | Contact |
| Alaska Department of Natural Resources | State Historic Preservation Officer | Northwest Arctic Borough | Mayor |
| Native Allotments | Dept. of the Interior-Regional Environmental Officer | NANA Regional Corporation | President / CEO |
| National Park Service - Cape Krusenstern N. M. | Dept. of Interior-Regional Environmental Officer | City of Kotzebue | Mayor |
| National Park Service - Bering Straits N.P. | Dept. of Interior-Regional Environmental Officer | City of Kivalina | Mayor |
| Selawik National Wildlife Refuge | Dept. of Interior-Regional Environmental Officer | City of Deering | Mayor |
| Alaska Dept. of Fish & Game | Resource Manager | Alaska Eskimo Whaling Commission | Executive Director |



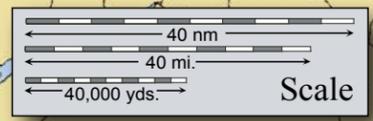
Legend

- Anchorage
- Mooring
- Dock/pier
- Crane
- Airport
- Existing GRS
- Private Cabins
- Public Use Cabins
- Boat Harbor

Northwest Arctic PPOR Map 04

USGS 1:1,587,870 Quadrangle
Map Reference - Arctic Coast -
Map 16003_1

Center of map at 66° 56.60' N Lat., 163° 31.03' W Lon.



| Physical and Operational Characteristics for PPOR Map 04 of the Northwest Arctic Subarea-Kotzebue Sound | | | |
|---|--|-----------------------------------|---|
| | Goodhope Bay | Sea Buoy Anchorage | Red Dog Mine Port Facilities |
| ID Number | DI-04-01 | DI-04-02 | L-04-01 |
| Location (In the general area) | 66°13.12'N 168°54.11'W | 66°48.08'N 163°14.90'W | 67°36.17'N 164°04.06'W |
| Maximum Vessel Size | Deep Draft Vessels - lengths to 1000 ft., 20-40 ft. of draft, greater than 10,000 GT | | Light Draft Vessels - up to 450 ft. in length, up to 20 ft. draft |
| Type of Berthing | Anchorage | | Dock |
| Contact | N/A | | Red Dog Mine Port Facilities |
| Navigational Approach | Approach from the N, NE | Approach from E | Approach from E |
| Minimum Water Depths (MLLW) | 6 Fathoms | 8 Fathoms | 15 ft. |
| Maximum Vessel Draft | 40 ft. | | 15 ft. |
| Swing Room or Dock Face (w/ dolphins) | 3.75 nm to shoal | 3.75 nm to shoal | 350 ft. |
| Bottom Type | Mud | Mud | N/A |
| Nearest Alternative Dock/Piers | 80 nm to L-04-01 | 60 nm to L-04-01 | 280 nm to L-02-02 |
| Nearest Alternative Anchorage | 36 nm to DI-04-02 | 36 nm to DI-04-02 | 60 nm to DI-04-02 |
| Prevailing Winds | Wind predominately from the W during ice free season | | |
| Currents | No data noted | 05. knots SE on flood / NW on ebb | No information found |
| Tides | Mean High 3.79 ft. (Higher 3.90) Mean Low 3.22 (Lower 3.12) | | Mean High 6.02 ft. (Higher 6.11) Mean Low 5.35 (Lower 5.22) |
| Sea Conditions | Exposed to N, NE, E | Exposed to W | Exposed to S, SW, W |
| Shelter from Severe Storms | Sheltered from severe storms | No data noted | |
| Fog | Fog during ice free season | | |
| Ice | Late October through Late May | | |

| Site ID Number & Vessel Size Classification |
|---|
| DII = Deep Draft Vessels lengths up to 1000 feet, 40-60 feet of draft, greater than 10,000 GT |
| DI = Deep Draft Vessels lengths up to 1000 feet, 20-40 feet of draft, greater than 10,000 GT |
| L = Light Draft Vessel up to 450 feet in length, draft up to 20 feet |
| S = A shallow draft vessel less than 300 Gross Tons, has a draft less than 15 ft., LOA less than 200 ft |

Site Considerations for PPOR Zone 04 of the Northwest Arctic Subarea-Kotzebue Sound

| | Goodhope Bay | Sea Buoy Anchorage | Red Dog Mine Port Facilities |
|---|--|-----------------------------|--|
| ID Number | DI-04-01 | DI-04-02 | L-04-01 |
| Human Health & Safety | | | |
| Community-distance to (nm) | Kotzebue 46 nm/ pop. 3201 | Kotzebue - 17 nm/ pop. 3201 | Red Dog - 3 nm/ pop. ? (private) |
| Health Care Facilities | Manilaq Medical Health Cnenter and Kotzebue PHN: 907-402-3321 | | Bessie A Kaningok Health Clinic: 907-985-5012 / Red Dog Mine Clinic (private) |
| Natural Resources Considerations | | | |
| Fish & Wildlife | High density seabird & shorebird nesting, Shorebird migration area, Waterfowl concentrations, Polar bear, Salmon & Herring spawning, spotted seal haulout, ringed seal breeding/pupping, beluga whales | | High density waterfowl & shorebird migration area, Waterfowl concentrations, Polar bear, Seals |
| Threatened & Endangered Species | Spectacled eiders (threatened), Polar bears (threatened) | | |
| Sensitive Areas | Barrier islands designated polar bear critical habitat | Polar bear critical habitat | |
| Other Stakeholder Considerations | | | |
| Fisheries | None | Salmon (historic) | None |
| Historic Properties | Historic Properties are present throughout the area. | | |
| Subsistence | High-level local subsistence | | |
| Tourism/Recreation | Local recreation | | |
| Waterfront Public Facilities/Parks | None | Barge landing facilities | Limited facilities |
| Waterfront Private Facilities | None | | |
| Response and Salvage Resource Consideration | | | |
| Ability to Boom Vessel | Weather Dependent | | |
| Geographic Response Strategies | N-22 | None (2011) | N-5, N-6 |
| Closest Alternative Place of Refuge for same sized vessel | 36 to DI-04-02 | 36 to DI-04-02 | 60 to DI-04-02 |

NOTE: Sensitive resource information can be found on other maps which can be accessed through the sensitive area section of the Northwest Arctic Subarea Contingency Plan: http://dec.alaska.gov/spar/perp/plans/scp_nwa.htm