

OIL SPILL CONTINGENCY PLANNING:

Most Environmentally Sensitive Areas (MESAs) along the Coast of Alaska

Volume I

Prepared By

**Alaska Department of Fish and Game
Habitat and Restoration Division
Anchorage, Alaska**

Funded By

**Alaska Department of Environmental Conservation
Spill Prevention and Response
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ACKNOWLEDGEMENTS

Frances Inoue designed and prepared the MESA maps included in this volume; Carol Barnhill, Terrence Howland, and Charles Couvillion assisted with data entry. Mark Fink, Robin Willis, Jack Winters, and Claudia Slater originally identified the MESAs. ADF&G area biologists and technicians contributed sensitive resource information. Hydrography, preliminary annotation, Legislatively Designated Area (LDA), and Conservation System Unit coverages were provided by Dorothy Mortenson and Jean Tam, Alaska Department of Natural Resources. Matt Eagleton, National Marine Fisheries Service, reviewed marine mammal information. Seabird colony data was provided by Shawn Stephenson with the U.S. Fish and Wildlife Service. Resource coverages were also provided by Alyeska Pipeline Service Company's contractor, Emcon Alaska; Dames and Moore, contractor for the Kodiak Island Borough; and by the National Oceanic and Atmospheric Administration. Final draft maps were reviewed by Joe Sullivan, Tamara Olson, and Mark Fink.

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INTRODUCTION

As part of the Alaska Department of Fish and Game's participation in the review of oil spill contingency plans, the Habitat and Restoration Division (H&R) has identified 68 of the most environmentally sensitive areas (MESAs) along the Alaska coastline that could be impacted by a marine spill. This information was originally developed at the request of the Alaska Department of Environmental Conservation (DEC) to assist noncrude oil barge operators in determining whether additional protection strategies were to be included in their oil discharge prevention and contingency plans. Subsequently, state and federal spill responders agreed to incorporate this information in the government spill response contingency plans. During the state fiscal year 1997, DEC provided funding to H&R to prepare maps of 33 MESAs, in this volume. The remaining 35 MESA maps were produced in Volume II during fiscal year 1998. MESA maps in Volume II were revised during fiscal year 2000. MESA maps in this volume were revised during fiscal year 2001.

It should be noted that the MESA sites were identified by H&R for spill response planning only, and were not developed in coordination with other state or federal resource agencies. While federal resource agencies had an opportunity to comment on the resource information identified on each map, these MESAs should not be considered a complete list of highly sensitive areas in Alaska.

MOST ENVIRONMENTALLY SENSITIVE AREAS (MESAs) ALONG THE COAST OF ALASKA

Arctic Region

Demarcation Point to Pastol Bay

1. Stefansson Sound Boulder Patch
 - waterfowl nesting
 - seabird colonies (>550 birds)
 - localized, unique kelp/benthic invertebrate community
 - historical coastal polar bear dens
 - ringed seal breeding and pupping
 - bearded seals generally associated with ice pack
 - bowhead whale nearshore migration

2. Howe/Duck Islands/Sagavanirktok River Delta
 - waterfowl nesting
 - seabird colonies (>200 birds)
 - anadromous fish nearshore migration and rearing

3. Colville River Delta
 - anadromous fish nearshore migration and rearing
 - waterfowl fall staging, nesting, and molting
 - spotted seal haulouts
 - ringed seal breeding and pupping
 - confirmed coastal polar bear denning

4. Peard Bay/Franklin Spit
 - waterfowl spring and fall staging, molting, and nesting
 - gray whale nearshore feeding
 - spotted seal haulouts
 - ringed seal breeding and pupping
 - bearded seals generally associated with active ice
 - confirmed coastal polar bear denning

5. Kasegaluk Lagoon
 - anadromous fish nearshore migration and rearing
 - waterfowl spring and fall staging, molting, and nesting
 - seabird colonies (>1,100 birds)
 - spotted seal haulouts
 - ringed seal breeding and pupping
 - beluga whales nearshore
 - Alaska Maritime National Wildlife Refuge

6. Cape Lisburne/Cape Lewis
 - seabird colonies (>245,000 birds)
 - walrus haulouts
 - ringed seal breeding and pupping
 - confirmed coastal polar bear denning
 - Alaska Maritime National Wildlife Refuge
7. Cape Thompson
 - seabird colonies (425,000 birds)
 - ringed seal breeding and pupping
 - Alaska Maritime National Wildlife Refuge
8. Noatak/Kobuk River Deltas - Kobuk/Selawik Lakes
 - anadromous fish nearshore migration and rearing
 - waterfowl spring and fall staging, molting, and nesting
 - spotted seal haulouts
 - ringed seal breeding and pupping
 - beluga whales nearshore
9. Little Diomede Island
 - seabird colonies (>1.2 million birds)
 - walrus haulouts
 - Alaska Maritime National Wildlife Refuge
10. King Island
 - seabird colonies (>245,000 birds)
 - walrus haulouts
 - Alaska Maritime National Wildlife Refuge
11. St. Lawrence Island
 - waterfowl fall staging, molting, nesting, and winter concentrations
 - seabird colonies (>2.3 million birds)
 - walrus haulouts
 - spotted seal haulouts
 - Alaska Maritime National Wildlife Refuge

Western Region

Pastol Bay to Cape Peirce

12. Mouth of the Yukon River¹
 - salmon concentrations
 - waterfowl molting and fall staging
 - beluga whales nearshore

- ringed seal breeding and pupping
 - Yukon-Kuskokwim Delta National Wildlife Refuge
13. Mouth and Lower Kuskokwim River¹
 - salmon concentrations
 - waterfowl spring and fall staging and molting
 - Yukon-Kuskokwim Delta National Wildlife Refuge
 14. Goodnews Bay
 - salmon concentrations
 - herring spawning
 - waterfowl spring and fall staging
 - seabird colonies (>350 birds)
 - eelgrass beds
 15. Saint Matthew Island
 - seabird colonies (>2.2 million birds)
 - walrus haulouts
 - Alaska Maritime National Wildlife Refuge
 16. Chagvan Bay (just north of Cape Newenham)
 - salmon concentrations
 - herring spawning
 - waterfowl spring and fall staging and molting
 - eelgrass beds
 - Cape Newenham State Game Refuge
 - Togiak National Wildlife Refuge
 17. Cape Newenham/Cape Pierce
 - herring spawning
 - waterfowl spring and fall staging, molting, and winter concentrations
 - seabird colonies (>607,000 birds)
 - harbor seal haulout
 - sea lion haulout
 - walrus haulout
 - gray whales nearshore
 - Togiak National Wildlife Refuge

Southwest Region

Cape Pierce to Cape Sarichef (Bristol Bay) **(including the Pribilof Islands)**

18. Walrus Islands
 - herring spawning
 - seabird colonies (>421,000 birds)

- walrus haulout (8,000 - 12,000 animals)
 - harbor/spotted seal haulout
 - sealion haulout
 - Walrus Islands State Game Sanctuary
19. Nushagak Bay¹
- salmon concentrations
 - waterfowl spring and fall staging
 - harbor/spotted seal haulout
 - beluga whale calving and feeding
20. Kvichak Bay¹
- salmon concentrations
 - waterfowl spring and fall staging
 - harbor seal haulout
 - beluga whale calving and feeding
21. Egegik Bay
- salmon concentrations
 - waterfowl spring and fall staging and molting
 - harbor seal haulout
 - beluga whale feeding
 - brown bear spring concentrations
 - Egegik State Critical Habitat Area
22. Ugashik Bay
- salmon concentrations
 - waterfowl spring and fall staging and molting
 - harbor seal haulout
 - Pilot Point State Critical Habitat Area
23. Cinder River
- salmon concentrations
 - waterfowl spring and fall staging and molting
 - harbor seal haulout
 - brown bear spring concentrations
 - Cinder River State Critical Habitat Area
24. Port Heiden
- salmon concentrations
 - seabird colonies (>5,700 birds)
 - waterfowl spring and fall staging and molting
 - harbor seal haulout
 - brown bear feeding concentrations
 - Port Heiden State Critical Habitat Area

25a/b. Port Moller/Nelson Lagoon

- salmon concentrations
- herring spawning
- seabird colonies (>4,800 birds)
- waterfowl spring and fall staging, molting, nesting, and winter concentrations
- harbor seal haulout
- walrus haulout
- brown bear feeding concentrations
- Port Moller State Critical Habitat Area

26a/b. Izembek Lagoon

- seabird colonies (>15,500 birds)
- salmon concentrations
- razor clam concentrations
- waterfowl spring and fall staging, molting, and winter concentrations
- harbor seal haulout
- sea otter concentrations
- brown bear feeding concentrations
- Izembek State Game Refuge
- Izembek National Wildlife Refuge

27. Pribilof Islands

- seabird colonies (>2.1 million birds)
- fur seal haulout and rookery
- sea lion haulout and rookery
- Alaska Maritime National Wildlife Refuge

Cape Sarichef to Attu Island

28a/b. Unimak Pass/Krenitzin Islands

- salmon migration corridor
- seabird colonies (>459,000 birds)
- waterfowl spring and fall staging, molting, and winter concentrations
- fur seal migration corridor
- sea lion haulouts and rookeries (1,356 pups)
- Gray whale migration corridor
- sea otter concentration
- Alaska Maritime National Wildlife Refuge

29. Kagamil Island

- seabird colonies (>34,000 birds)
- waterfowl spring and fall staging and winter concentrations
- sea lion haulout
- Alaska Maritime National Wildlife Refuge

30. Delarof Islands
 - seabird colonies (>664,000 birds)
 - waterfowl winter concentrations
 - sea lion haulouts and rookeries (1,590 pups)
 - sea otter concentration
 - Alaska Maritime National Wildlife Refuge

31. Kiska Island
 - seabird colonies (1.5 million birds)
 - waterfowl spring staging, nesting, and winter concentrations
 - sea lion haulouts and rookeries (221 pups)
 - sea otter concentration
 - Alaska Maritime National Wildlife Refuge

32. Buldir Island (NW of Kiska Island)
 - seabird colonies (>3.5 million birds)
 - waterfowl spring and fall staging, molting, and winter concentrations (including Aleutian Canada geese)
 - sea lion rookery (381 pups)
 - Alaska Maritime National Wildlife Refuge

33. Agattu Island
 - seabird colonies (>65,000 birds)
 - waterfowl spring and fall staging, nesting, and winter concentrations
 - sea lion rookeries (1,127 pups)
 - Alaska Maritime National Wildlife Refuge

¹Area heavily weighted by highly significant commercial and/or subsistence fisheries.

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