

# COOK INLET SUBAREA CONTINGENCY PLAN

## DISPERSANT USE AVOIDANCE AREAS

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## PART ONE: INTRODUCTION

This section supplements the Dispersant Use Plan for Alaska, found in Annex F, Appendix I, of the Alaska Federal and State Preparedness Plan for Response to Oil and Hazardous Substance Discharges and Releases, or Unified Plan ([https://dec.alaska.gov/spar/ppr/plans/uc/Annex%20F%20Appendix1\(Jan%2016\).pdf](https://dec.alaska.gov/spar/ppr/plans/uc/Annex%20F%20Appendix1(Jan%2016).pdf)), which provides overarching guidelines for dispersant use in Alaska. As described in the National Contingency Plan and the Dispersant Use Plan for Alaska, the U.S. Coast Guard (USCG) Federal On-Scene Coordinator (FOSC) may authorize the use of dispersants without obtaining spill-specific concurrences where the U.S. Environmental Protection Agency (EPA), State of Alaska, and natural resource trustee agencies [i.e., the U.S. Department of the Interior (DOI) and the U.S. Department of Commerce (DOC)] have approved the preauthorization plan in advance. The Dispersant Use Plan for Alaska identifies an offshore Preauthorization Area in Alaska where the USCG FOSC can approve the use of dispersants, provided certain policies, considerations, conditions, and stipulations are followed (Unified Plan, Annex F, pages F-15 to F-19). Preauthorization Area boundaries encompass marine transit routes used by crude oil laden tankers and other vessels and transect five of Alaska's 10 subareas: Prince William Sound, Cook Inlet, Kodiak, Bristol Bay, and the Aleutians.

The Dispersant Use Plan for Alaska outlines a deliberative process to identify avoidance areas where dispersant use decisions will follow the case-by-case authorization process, outlined in Annex F, Appendix I, Tab 1, Part B (Page F-24) of the Unified Plan. The Dispersant Use Plan for Alaska includes two checklists that govern dispersant use decisions: Tab 1, Part A, describes the process for authorizing dispersant use within the Preauthorization Area (Page F-20), and Tab 1, Part B, describes the process for authorizing dispersant use, utilizing the case-by-case protocol, which applies within avoidance areas and for Undesignated Areas outside of the Preauthorization Area. This section identifies specific avoidance areas within the Cook Inlet Subarea that require special consideration, consultation, and approval before the USCG's FOSC approves dispersant use. It is intended for use by On-Scene Coordinators (OSCs), members of the Unified Command's Planning Section and Environmental Unit, and natural resource trustees to understand which set of protocols should guide dispersant use decisions (i.e., Preauthorization or case-by-case).

Avoidance areas described herein were approved by Federal and State OSCs with jurisdiction over the five affected subareas. Decisions to use dispersants within avoidance areas and in Undesignated Areas outside of the Preauthorization Area require additional concurrence from the following agency representatives *before* a decision to use dispersants is made: EPA's FOSC, USCG's FOSC, and the Alaska Department of Environmental Conservation's (ADEC) State OSC when state waters are threatened. Consultation with Alaska Regional Response Team (ARRT) members from the DOI and DOC is also required *before* decisions to authorize dispersant use have been made (unless dispersant use becomes necessary to protect human life, as outlined in the National Contingency Plan).

While this section specifically addresses resources within the Cook Inlet Subarea, many resources and ecological processes span multiple planning boundaries, and dispersant use may affect broad areas. Therefore, adjacent Subarea Contingency Plans (SCPs) should be referenced in conjunction with the Cook Inlet SCP before authorizing dispersant use. Figure 1-1 shows the Cook Inlet Subarea boundaries, their relationship with adjacent subareas, and their juxtaposition within the Preauthorization Area.

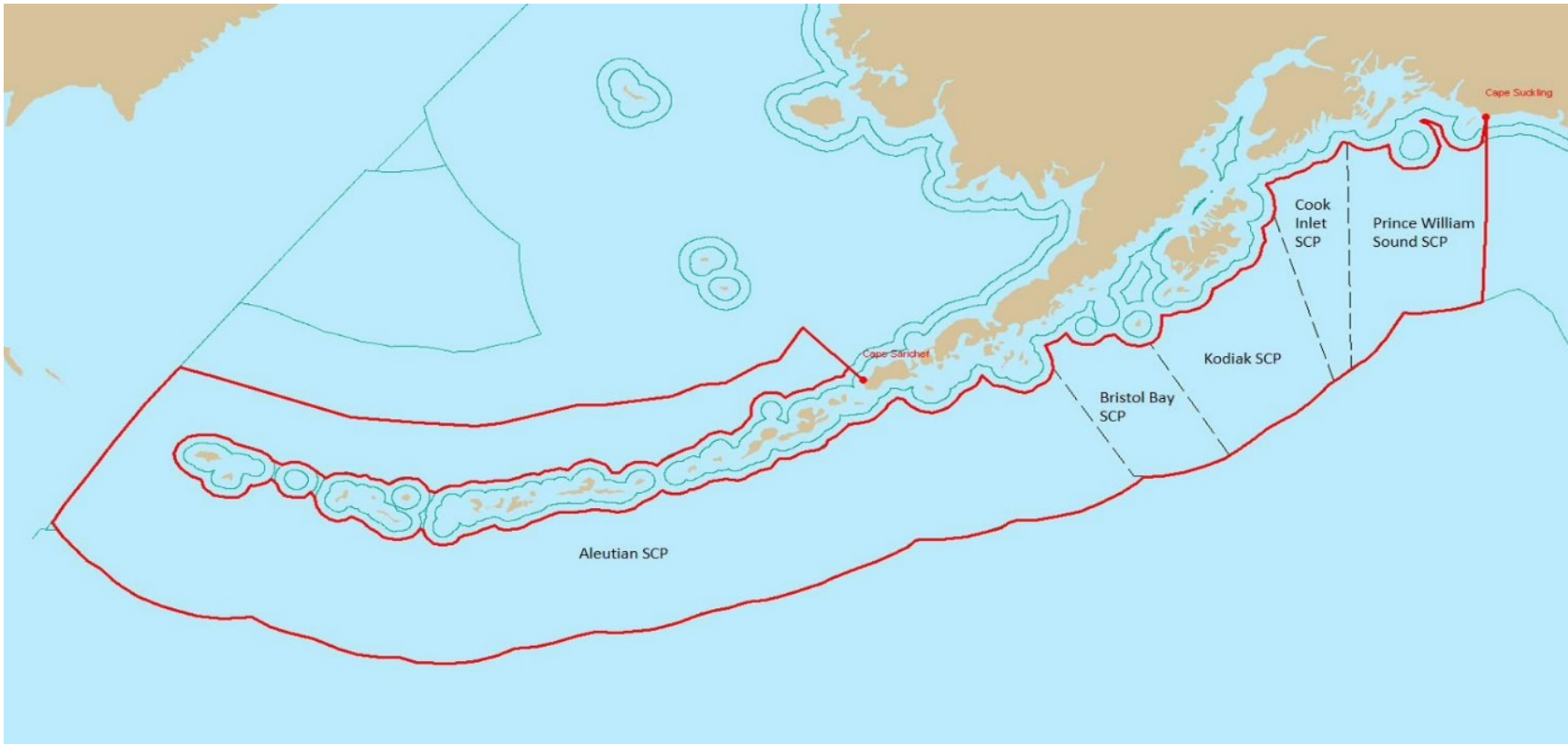


Figure 1-1 – The Preauthorization Area (shown in red) begins 24 miles offshore and extends southward to the Exclusive Economic Zone, located 200 miles offshore, and 100 miles north of the Aleutian Chain. Two anchor points, located at Cape Suckling and Cape Sarichef, ensure all vessels entering Southcentral Alaska from the south and traffic passing through Unimak Pass along the Great Circle route are subject to dispersant preauthorization requirements.

## PART TWO: BACKGROUND

The ARRT representatives from the ADEC, USCG, EPA, DOC, and DOI approved and signed the new Dispersant Use Plan for Alaska (Annex F, Appendix I, of the Unified Plan) on January 27, 2016. Signing the plan initiated a 24-month window during which FOSCs were required to seek subarea-specific input from stakeholders to identify avoidance areas within the Preauthorization Area, shown in Figure 1-1. To accomplish this task, OSCs worked with the natural resource trustees to establish a Dispersant Use Avoidance Area Technical Committee (Technical Committee), which was composed of scientists from the DOI, including the Office of Environmental Policy and Compliance, U.S. Fish and Wildlife Service (USFWS), and U.S. Geological Survey; DOC's National Oceanic and Atmospheric Administration (NOAA), including the National Marine Fisheries Service (NMFS); ADEC; and Alaska Department of Fish and Game.

Representatives from the USCG and Technical Committee members conducted extensive outreach in 2016 and 2017 to inform the public and gather input on potential avoidance areas. Presentations in Anchorage, Kenai, Valdez, Kodiak, and Unalaska described the new Dispersant Use Plan for Alaska, the state of dispersant science, and the avenues for the public to provide input on specific avoidance areas and spatial or temporal factors that might affect dispersant use decisions. Public comments included detailed descriptions of proposed avoidance areas and associated physical, temporal, and biological factors that the Technical Committee took into account when developing avoidance area recommendations. When considering public input, related comments were merged into similar categories, and individual responses were generated for each category. The comment matrix describes how the avoidance areas address specific public input and is publically available on ADEC's dispersant website (<https://dec.alaska.gov/spar/ppr/dispersant.htm>) and linked from the ARRT's website ([www.alaskarrt.org](http://www.alaskarrt.org)).

The Technical Committee consulted subject matter experts from NOAA's Office of Response and Restoration; NMFS's Protected Resources Division, Habitat Conservation Division, and Sustainable Fisheries Division; the Oil Spill Recovery Institute; USFWS; Prince William Sound Regional Citizens' Advisory Council (RCAC); and Cook Inlet RCAC for specific input on certain topics outside of the committee's technical expertise. The Technical Committee then analyzed the following types of information to determine potential vulnerability to dispersed oil: Essential Fish Habitat (EFH); Habitat Areas of Particular Concern (HAPC); seasonality of primary and secondary productivity; fishery stock assessments and commercial fishery harvest data; short-tailed albatross (endangered species) concentration areas and distribution; Audubon's Important Bird Areas; Endangered Species Act-listed threatened and endangered species and their critical habitat; cetacean Biologically Important Areas (BIAs) in Alaska<sup>1</sup>; physical oceanography parameters (e.g., bathymetry, sediment loading, salinity gradients, kinetic energy and mixing rates, settling rates, benches, troughs, navigational entrances, etc.); hydrographic flow patterns (e.g., lateral, vertical, stratification, upwelling, and seasonal variations); areas of public concern; and other scientific information. The Technical Committee briefed State and Federal OSCs on their consensus recommendations and received OSC endorsement on August 28, 2017.

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<sup>1</sup> Van Parijs, S. M., Curtice, C., & Ferguson, M. C. (Eds.). (2015). Biologically important areas for cetaceans within U.S. waters. *Aquatic Mammals (Special Issue)*, 41(1), 1-128.

### PART THREE: AVOIDANCE AREAS

After reviewing all public, non-government organization, agency, and subject matter expert input, the Technical Committee identified the following criteria for avoidance areas:

1. **1,000-meter (m) isobaths:** All landward areas between the 1,000 m isobaths and the Preauthorization Area's inner boundary (24 nautical miles offshore) are designated as avoidance areas. This does not affect the Preauthorization Area's anchor points at Cape Suckling and Cape Sarichef, nor does it change the shape/location of the Preauthorization Area itself. This designation addresses numerous different areas with particular ecological or economic significance. Many ecologically important areas are associated with bathymetric features, such as the shelf break, troughs, and banks. The banks, particularly those south and east of Kodiak Island, are biologically important and support fisheries for multiple species. Indeed, a large majority of traditional fishing grounds and nearly all EFH for Federally managed species occurs landward of the 1,000 m isobaths. Large bathymetric features, especially the shelf break and areas where troughs meet banks, cause upwelling and other oceanographic conditions that can lead to enhanced productivity in the overlying water column, including surface waters. Though most comments addressed abundantly available data available for Prince William Sound, Cook Inlet, and Kodiak Island Subareas, the Technical Committee decided that the important physical and biological features prompting these comments should be extended to the entire Preauthorization Area, even though significantly less data are available to describe the Aleutians and Bristol Bay Subareas.
2. **Short-tailed albatross concentration areas:** Per the USFWS's Biological Opinion for the Unified Plan ([https://dec.alaska.gov/spar/ppr/docs/2011\\_0036\\_Unified\\_Plan\\_Consultation\\_27Feb2014.FINAL.pdf](https://dec.alaska.gov/spar/ppr/docs/2011_0036_Unified_Plan_Consultation_27Feb2014.FINAL.pdf)), population concentration areas for short-tailed albatross within the Preauthorization Area are designated as avoidance areas. Information describing the process for delineating these avoidance areas and the rationale behind establishing them are detailed in Appendix D of the Biological Opinion. Some of these areas are landward of the 1,000 m isobaths (already recommended as avoidance areas), while others are seaward.
3. **North Pacific right whale critical habitat:** Per the NMFS's Biological Opinion for the Unified Plan (<http://dec.alaska.gov/spar/ppr/docs/051515akunifiedplanbiop.pdf>), North Pacific right whale critical habitat and a 20-mile buffer around these areas are designated as avoidance areas. Detailed information about these avoidance areas is provided in the Biological Opinion.
4. **North Pacific right whale Biologically Important Areas:** In addition to the critical habitat, two North Pacific right whale BIAs are designated as avoidance areas. The NMFS presented this recommendation to the Technical Committee, which was not part of the Biological Opinion. One BIA in the Preauthorization Area is south of Kodiak Island and extends seaward of both the Preauthorization Area's inner boundary and the 1,000 m isobaths. A second BIA occurs in the Preauthorization Area northwest of Unimak Island and extends eastward into the Undesignated Area (mirroring designated critical habitat in the Bering Sea).
5. **Habitat Areas of Particular Concern (excluding seamounts):** HAPCs are a specific subset of EFH with extremely important ecological functions. They encompass the seafloor and overlying water column. As recommended by the NMFS, HAPCs are designated as avoidance areas, with the exception of the Seamount Habitat Protection Areas (discussed below). Most of the HAPCs in the Preauthorization Area are landward of the 1,000 m isobaths and, therefore, are already designated for Case-by-Case authorization, but portions of several HAPCs are seaward of these isobaths and received avoidance area designation.

**Seamounts were not designated as avoidance areas:** After reviewing physical and biological oceanographic data and having detailed discussions with entities who recommended treating seamounts as avoidance areas, the Technical Committee agreed not to nominate seamounts as avoidance areas. Seamounts are discreet features, generally over 1,000 m deep, and data did not suggest the water column above them is uniquely productive. Given the depth and currents of surrounding waters, dispersant applications over seamounts would likely not impact the deep-sea habitat on seamounts themselves.

To document these avoidance areas and aid in visual depictions, NOAA's Spatial Data Branch digitized several data layers in the Environmental Response Management Application (ERMA) for Alaska. This application provides variable scale depictions of approved avoidance areas in relation to subarea boundaries, the Preauthorization Area, bathymetry, and other physical and biological features. The following data layers (organized by ERMA's directories and subdirectories) complement the Technical Committee's OSC-approved avoidance areas (Figure 1-2) and should be used to help response teams make informed dispersant use decisions. Most of these data layers have also been added to an ERMA bookmark, called "Dispersant Avoidance Areas" under the "Spill Risks and Marine Ecosystems" directory (<https://erma.noaa.gov/arctic/erma.html#/view=1817>). Avoidance areas within the Cook Inlet Subarea are shown in Figure 1-3.

#### **Bathymetry & Hydrology**

- Bathymetry
  - ✓ Alaska Region Bathymetry – 1,000 m Contours (UAF, 2013)

#### **Response Planning**

- Area Contingency Plans
  - ✓ Preauthorization Avoidance Areas
  - ✓ Preauthorization Area (USCG, 2016)

#### **Natural Resources, Habitats, & Managed Areas**

- Coastal Resources & Habitats
  - o Birds
    - ✓ Short-Tailed Albatross Dispersant Use Avoidance Areas
    - ✓ Important Bird Areas - Alaska (Audubon, 2014)
  - o Marine Mammals
    - ✓ Cetaceans
      - Biologically Important Areas
        - ✓ Aleutian Islands and Bering Sea Beluga Whale Biologically Important Areas (NOAA, 2015)
        - ✓ Aleutian Islands and Bering Sea Fin Whale Biologically Important Areas (NOAA, 2015)
        - ✓ Aleutian Islands and Bering Sea Gray Whale Biologically Important Areas (NOAA, 2015)
        - ✓ Aleutian Islands and Bering Sea Humpback Whale Biologically Important Areas (NOAA, 2015)
        - ✓ Aleutian Islands and Bering Sea North Pacific Right Whale Biologically Important Areas (NOAA, 2015)

- ✓ Gulf of Alaska Beluga Whale Biologically Important Areas (NOAA, 2015)
  - ✓ Gulf of Alaska Fin Whale Biologically Important Areas (NOAA, 2015)
  - ✓ Gulf of Alaska Gray Whale Biologically Important Areas (NOAA, 2015)
  - ✓ Gulf of Alaska Humpback Whale Biologically Important Areas (NOAA, 2015)
  - ✓ Gulf of Alaska North Pacific Right Whale Biologically Important Areas (NOAA, 2015)
- Critical Habitat
  - ✓ Beluga Critical Habitat (NMFS, 2011)
  - ✓ North Pacific Right Whale Critical Habitat (NOAA, 2008)
  - ✓ North Pacific Right Whale Critical Habitat 20 Mile Buffer (NOAA, 2017)
  - ✓ Steller Sea Lion Critical Habitat (NMFS, 2007)
- Essential Fish Habitat (NOAA EFH)
  - Habitat Areas of Particular Concern (HAPC)
    - ✓ Essential Fish Habitat – Habitat Areas of Particular Concern



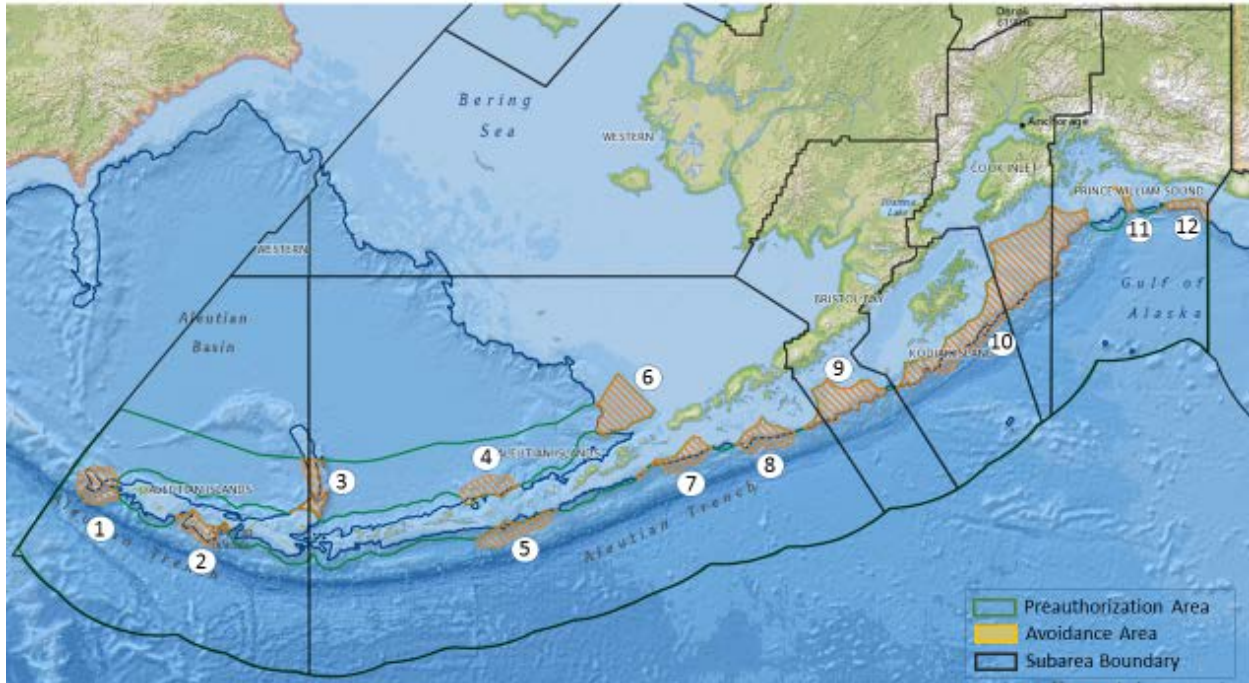


Figure 1-2 – Dispersant use avoidance areas in relation to key components (physical, biological, economic, and planning boundaries depicted).

1. Short-Tailed Albatross Concentration Area (USFWS Biological Opinion); Water Depth <1,000 m
2. Short-Tailed Albatross Concentration Area (USFWS Biological Opinion); Water Depth <1,000 m
3. Bowers' Ridge Habitat Conservation Zone (NMFS Habitat Conservation Division); Habitat Area of Particular Concern (NMFS Habitat Conservation Division); Abundant Commercial Fishing Resources (NMFS Sustainable Fisheries); Water Depth <1,000 m
4. Short-Tailed Albatross Concentration Area (USFWS Biological Opinion); Abundant Commercial Fishing Resources (NMFS Sustainable Fisheries)
5. Short-Tailed Albatross Concentration Area (USFWS Biological Opinion); Abundant Commercial Fishing Resources (NMFS Sustainable Fisheries)
6. Short-Tailed Albatross Concentration Area (USFWS Biological Opinion); North Pacific Right Whale Critical Habitat/Biologically Important Area (NOAA/NMFS Protected Resources Division Biological Opinion); Water Depth <1,000 m Abundant Commercial Fishing Resources (NMFS Sustainable Fisheries)
7. Short-Tailed Albatross Concentration Area (USFWS Biological Opinion); Habitat Area of Particular Concern (NMFS Habitat Conservation Division); Abundant Commercial Fishing Resources (NMFS Sustainable Fisheries) Short-Tailed Albatross Concentration Area (USFWS Biological Opinion); Abundant Commercial Fishing Resources (NMFS Sustainable Fisheries)
8. Short-Tailed Albatross Concentration Area (USFWS Biological Opinion); Abundant Commercial Fishing Resources (NMFS Sustainable Fisheries); Water Depth <1,000 m
9. Short-Tailed Albatross Concentration Area (USFWS Biological Opinion); North Pacific Right Whale Critical Habitat/Biologically Important Area (NOAA/NMFS Protected Resources Division Biological Opinion); Habitat Area of Particular Concern (NMFS Habitat Conservation Division); Abundant Commercial Fishing Resources (NMFS Sustainable Fisheries); Water Depth <1,000 m; Seasonally Rich Primary Productivity (GLOBEC)
10. Habitat Area of Particular Concern (NMFS Habitat Conservation Division); Water Depth <1,000 m
11. Habitat Area of Particular Concern (NMFS Habitat Conservation Division); Water Depth <1,000 m



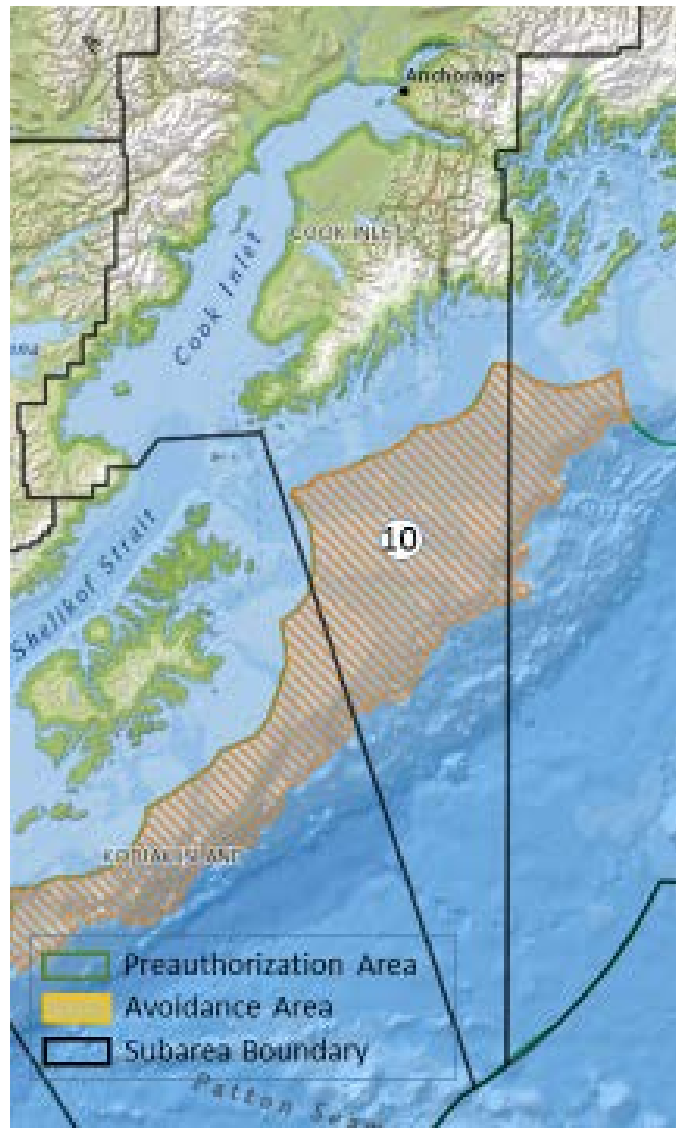


Figure 1-3 – The dispersant use avoidance area in the Cook Inlet Subarea was primarily delineated based on the presence of short-tailed albatross concentration areas, North Pacific right whale Biologically Important Areas, Habitat Areas of Particular Concern, abundant commercial fishing resources, physical oceanography features, hydrographic flow patterns, seasonally rich primary productivity, and areas of public concern.