Southeast Alaska Geographic Response Strategies

Section G of the Southeast Alaska Subarea Contingency Plan

APRIL 2013
**Southeast Alaska SUBAREA CONTINGENCY PLAN**

**GEOGRAPHIC RESPONSE STRATEGIES**

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<td>B. Southeast Alaska Geographic Response Zone 1</td>
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Southeast Alaska SCP: GRS
PART FOUR References ............................................................................................................................. G-4-1
**Purpose and Scope**

These Geographic Response Strategies (GRS) are designed to be a supplement to the Southeast Alaska Subarea Contingency Plan for Oil and Hazardous Substances Spills and Releases, commonly referred to as the Southeast Alaska Subarea Contingency Plan (SCP). GRS provide unified (public, responders, and agencies) priorities and strategies for the protection of selected sensitive areas to aid first responders to an oil spill. The GRS list the sensitive resources of an area and the response strategies, equipment, personnel and logistical information necessary to protect the sensitive areas. Because the U.S. Coast Guard Marine Safety Office, Environmental Protection Agency and the Alaska Department of Environmental Conservation have already approved them, the GRS serve as pre-approved strategies of the Unified Command during the emergency phase of an oil spill response.

Implementation of these Geographic Response Strategies is the third phase of an oil spill response. The first and primary phase of the response is to contain and remove the oil at the scene of the spill or while it is still on the open water, thereby reducing or eliminating impact on shorelines or sensitive habitats. If some of the spilled oil escapes this tactic, the second phase, which is no less important, is to intercept, contain and remove the oil in the nearshore area. The intent of phase two is the same as phase one: remove the spilled oil before it impacts sensitive environments. If phases one and two are not fully successful, phase three is to protect sensitive areas in the path of the oil. The purpose of phase three is to protect the selected sensitive areas from the impacts of a spill or to minimize that impact to the maximum extent practical.

The sites selected for development of Geographic Response Strategies are not meant to be exclusive; other sensitive sites may require protection during any given spill. The fact that a GRS may not have been developed for a certain sensitive site does not mean that site should not be protected if it is threatened by an oil spill.

These strategies are intended to be flexible to allow the spill responders to modify them, as necessary, to fit the prevailing conditions at the time of a spill. Seasonal constraints, such as ice or weather, may preclude implementation of some of the strategies in the winter months. It is not intended that all the sites be automatically protected at the beginning of a spill, only those that are in the projected path of the spill. The strategies developed for the selected sites were completed with a focus on minimizing environmental damage, utilizing as small a footprint as needed to support the response operations and selecting sites for equipment deployment that will not cause more damage than the spilled oil. To test these GRS, each site may be visited and equipment deployed according to the strategy, to ensure that the strategy is the most effective in protecting the resources at risk at the site. Revisions will be made to the strategies, and this document, if changes are indicated by site visits, drills or actual use during spills.

The Southeast Alaska Subarea has been divided into nine geographic response zones (Figure G-1-1). The zones boundaries were chosen to reflect the geography and population centers in Southeast Alaska.

**How to Use These Geographic Response Strategies**

The information provided here supplements information provided in the Southeast Alaska SCP and the Alaska Federal/State Preparedness Plan for Response to Oil & Hazardous Substances Discharge/Releases (commonly referred to as the Unified Plan). Information provided in either of these plans is not duplicated herein. This document is intended for use by response professionals already familiar with spill response techniques.

Part 2 contains a general description of the protection/recovery tactics utilized throughout the GRS. Each general description contains the strategy objective, deployment depictions, resource sets required to implement the strategy, and deployment considerations and limitations. These general strategies may be adapted to produce a protection scheme for any site in Southeast Alaska.

Part 3 contains site-specific response strategies. An index at the beginning of each sub-section shows the location of the selected sites. Each GRS consists of two parts: 1) a graphic showing a map, deployment diagram, picture and implementation notes; and 2) a table giving the location description, response strategy, response resources, staging area, site access, natural resources being protected and special considerations.

**Who to Contact for Input**

Comments and recommendations on these GRS are welcomed. Please send your comments to either of the following agencies:

- **Alaska Department of Environmental Conservation Prevention and Emergency Response Program**
  555 Cordova Street
  Anchorage, A K 99501

- **United States Coast Guard Captain of the Port, Southeast Alaska**
  2760 Sherwood Lane, Suite 2A
  Juneau, A K 99801
How the Document Was Developed

These GRS were developed through a cooperative, work group process involving federal, state, and local spill response experts working with representatives from the oil transportation industry, natural resource management agencies, and tribal organizations. The Southeast Alaska GRS work group developed the GRS for each of the nine response zones. The work group consisted of representatives from the following organizations:

Alaska Department of Environmental Conservation
National Park Service
Southeast Alaska Petroleum Resource Organization
United States Coast Guard
United States Department of Interior
United States Fish and Wildlife Service

The first step of the GRS process was to identify all sensitive areas that have potential to be classified as “Areas of Major Concern” under the criteria established in the Southeast Alaska SCP. Members of the Southeast Sensitive Areas Work Group (SAWG), participated in this process along with the GRS work group. The SAWG developed site selection matrices (Tables G-1-1 through G-1-10) to aid in the selection of sites in each of the nine response zones.

These potential sites were evaluated by the additional criteria of 1) risk of being impacted from a water borne spill; and 2) feasibility of successfully protecting the site with existing technology. Using this process, the SAWG selected a preliminary list of sites that were released for public input. Public hearings were advertised and held in Juneau, Petersburg, Sitka, and Ketchikan to solicit feedback from tribal representatives, user groups, environmental organizations and the general public. Based on the feedback received, the SAWG made the final site selections for each zone. Additional sites may be selected in the future.

The GRS work group then developed draft strategies for each selected site. The draft strategies were reviewed by the SAWG and the final draft was forwarded to the Southeast Alaska Subarea Committee with the recommendation that it be adopted as part of the Southeast Alaska SCP.

### Table G-1-1. Key to Tables G-1-2 through G-1-10 Southeast Alaska Zone Geographic Response Strategies.

<table>
<thead>
<tr>
<th>Marine Mammals</th>
<th>Fish</th>
<th>Coastal Habitat</th>
<th>Cultural Resources</th>
<th>Subsistence Use</th>
<th>Recreational Use</th>
<th>Commercial Fishing</th>
<th>Land Management</th>
<th>Waterfront Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>H = Harbor Seal rookeries and haulouts</td>
<td>H = Herring spawning areas</td>
<td>S = Colony of over 500 seabirds</td>
<td>M = Marsh or estuary</td>
<td>R = Report any cultural resources found during operations to the FOSC Historic Properties Specialist</td>
<td>F = High use salmon harvest areas</td>
<td>H = High use commercial wildlife viewing</td>
<td>S = Intensive commerical salmon fishing</td>
<td>H = State critical habitat, refuge, sanctuary</td>
</tr>
<tr>
<td>S = Stellar Sea Lion rookeries and haulouts</td>
<td>E =Eulachon spawning concentration</td>
<td>C = Waterfowl &amp; shorebird migratory, molting, and winter concentration</td>
<td>T = Sheltered tidal flat</td>
<td>I = FOSC Historic Properties Specialist should inspect site prior to operations</td>
<td>I = High use marine invertebrate area</td>
<td>H = Salmon hatchery or ocean pen</td>
<td>P = State Park</td>
<td>M = Marinas and harbors</td>
</tr>
<tr>
<td>O = Seabird concentration &gt;1000</td>
<td>R = Juvenile fish rearing in kelp and reefs</td>
<td>M = Mattingled murrelet nearshore feeding concentration</td>
<td>R = Sheltered rocky shore</td>
<td>N = FOSC Historic Properties Specialist should monitor site operations</td>
<td>P = Shorebased fish processor</td>
<td>N = National Park and Preserve</td>
<td>F = Floating camps</td>
<td></td>
</tr>
<tr>
<td>W = Humpback whale summer, fall, winter concentration</td>
<td>S = More than 10,000 salmon spawners</td>
<td>K = K. lilljeb. (proposed endangered species) habitat</td>
<td>K = Kelp or eelgrass beds</td>
<td>N = Sat.net fishery</td>
<td>L = National Landmark</td>
<td>I = Interdental area of high diversity</td>
<td>I = National Wildlife Refuge</td>
<td>W = Wild &amp; Scenic River</td>
</tr>
</tbody>
</table>

Source

Primary sources: SE SCP, NOAA ESI maps, NMFS, ADFG, FWS, NPS data
Primary sources: SE SCP, NOAA ESI maps, ADFG, FWS, NPS, NMFS, data
Primary sources: SE SCP, NOAA ESI maps, WFS, ADFG, FWS, NMFS, data
Primary sources: NOAA ESI maps, WFS, ADFG, USFS data
Primary sources: ADFG, USFS data
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Primary sources: ADFG, USFS data
Primary sources: ADFG, USFS data
Primary sources: ADFG, USFS data
Primary sources: ADFG, USFS data

Table G-1-1. Key to Tables G-1-2 through G-1-10 Southeast Alaska Zone Geographic Response Strategies.
A. **SOUTHEAST ALASKA ZONE 1**

The Work Group developed Table G-1-2 to aid in the selection of sites from within Southeast Alaska Zone 1. The table consists of identified sites in each row with information about resources at each site that could qualify the site as an area of major concern in the columns. Shaded rows in the table represent the sites in the zone (priority 1 sites) selected for initial GRS development.

Table G-1-1 contains the key to the codes used in the site selection table.

Figure G-1-2 shows the location of GRS sites in Zone 1.

Sites that were not selected for initial GRS development may still require protection during an oil spill, and they may be selected for future GRS development. Spill responders should consider the identification and location of these sites when committing spill equipment and personnel during large oil spills.

A note of caution: As of June 2003, only 33 of the 60 GRS sites have been surveyed and/or tested. Until each GRS has been verified and refined through site surveys and tests, they should be considered as preliminary tactics subject to modification, if necessary.
Table G-1-2. Zone 1 site selection table for Geographic Response Strategies.

<table>
<thead>
<tr>
<th>Locations</th>
<th>Priority</th>
<th>GRS #</th>
<th>ESI Map #</th>
<th>lat (N)</th>
<th>lon (W)</th>
<th>Marine Mammals</th>
<th>Fish</th>
<th>Birds</th>
<th>Coastal Habitat</th>
<th>Cultural Resources</th>
<th>Subsistence Use</th>
<th>Recreational Use</th>
<th>Commercial Fishing</th>
<th>Land Management</th>
<th>Waterfront Activity</th>
</tr>
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<tbody>
<tr>
<td>Bostwick Estuary</td>
<td>1</td>
<td>SE01-01</td>
<td>Ketch B-6</td>
<td>55° 14'</td>
<td>131° 44'</td>
<td>R.S</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td>T,M,K</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foggy Bay</td>
<td>1</td>
<td>SE01-02</td>
<td>Prince Rupert D-3y</td>
<td>54° 57'</td>
<td>130° 58'</td>
<td>S,H</td>
<td>S,H</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td>M</td>
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<tr>
<td>Rudyard Bay</td>
<td>1</td>
<td>SE01-03</td>
<td>Ketch C-3</td>
<td>55° 33'</td>
<td>130° 49'</td>
<td>S,H</td>
<td>S</td>
<td>C</td>
<td>T,M</td>
<td></td>
<td></td>
<td>M</td>
<td></td>
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<tr>
<td>Chikamin River Estuary</td>
<td>1</td>
<td>SE01-04</td>
<td>Ketch D-3</td>
<td>55° 48'</td>
<td>130° 57'</td>
<td>S</td>
<td></td>
<td>C</td>
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<td>M,T</td>
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<tr>
<td>Thorne Bay</td>
<td>1</td>
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<td>Craig C-2</td>
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<td></td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>M</td>
<td>F,J</td>
<td>M</td>
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<tr>
<td>Dog Is., end of Duke Is.</td>
<td>1</td>
<td>SE01-06</td>
<td>Prince Rupert D-4</td>
<td>54° 59'</td>
<td>131° 19'</td>
<td>S,H,O</td>
<td>S,H</td>
<td>C</td>
<td>T</td>
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<td>I</td>
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<td>Grindall Is.-haulout</td>
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<td>I</td>
<td>H</td>
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<td>Karta Bay</td>
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<td>Craig C-2</td>
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<td>S,H</td>
<td>S</td>
<td>C</td>
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<td>Lincoln Channel</td>
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<td>Tampas Harbor</td>
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<td>Ketch A-5</td>
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<td>Carroll Gr. Estuary</td>
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<td>George Inlet Salt Chuck</td>
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<td>55° 20'</td>
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<td>Moss Bay Estuary</td>
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<td>131° 41'</td>
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<td>Port Stewart Estuary</td>
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<td>Roosevelt Lagoon/Naia Bay</td>
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<td>Settlers Cove</td>
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<td>Ketch C-6</td>
<td>55° 30'</td>
<td>131° 14'</td>
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<td>Traitors Cove Salt Chuck</td>
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<td>Vallamer Bay Estuary</td>
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<td>55° 22'</td>
<td>131° 50'</td>
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<td>Hydaburg</td>
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<td>Jesse Mace Island</td>
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<td></td>
<td>Peters B-5</td>
<td>56° 20'</td>
<td>133° 37'</td>
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<td>Mianzenta Bay</td>
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<td></td>
<td>Ketch C-3</td>
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* ESI information not available

**NOTE:** Resource codes key can be found in Table G-1-1 on page G-1-2.
B. SOUTHEAST ALASKA ZONE 2

The Work Group developed Table G-1-3 to aid in the selection of sites from within Southeast Alaska Zone 2. The table consists of identified sites in each row with information about resources at each site that could qualify the site as an area of major concern in the columns. Shaded rows in the table represent the sites in the zone (priority 1 sites) selected for initial GRS development.

Table G-1-1 contains the key to the codes used in the site selection table.

Figure G-1-3 shows the location of GRS sites in Zone 2. No sites were selected for Zone 2 because the sensitive areas identified were along exposed areas of the Gulf of Alaska where response equipment is not effective or dangerous to deploy.

Sites that were not selected for initial GRS development may still require protection during an oil spill, and they may be selected for future GRS development. Spill responders should consider the identification and location of these sites when committing spill equipment and personnel during large oil spills.

A note of caution: As of June 2003, only 33 of the 60 GRS sites have been surveyed and/or tested. Until each GRS has been verified and refined through site surveys and tests, they should be considered as preliminary tactics subject to modification, if necessary.
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<th>ESI Map #</th>
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<th>Lon (W)</th>
<th>Marine Mammals</th>
<th>Fish</th>
<th>Birds</th>
<th>Coastal Habitat</th>
<th>Cultural Resources</th>
<th>Subsistence Use</th>
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<th>Commercial Fishing</th>
<th>Land Management</th>
<th>Waterfront Activity</th>
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* ESI information not available

NOTE: Resource codes key can be found in Table G-1-1 on page G-1-2.
C. SOUTHEAST ALASKA ZONE 3

The Work Group developed Table G-1-4 to aid in the selection of sites from within Southeast Alaska Zone 3. The table consists of identified sites in each row with information about resources at each site that could qualify the site as an area of major concern in the columns. Shaded rows in the table represent the sites in the zone (priority 1 sites) selected for initial GRS development.

Table G-1-1 contains the key to the codes used in the site selection table.

Figure G-1-4 shows the location of GRS sites in Zone 3.

Sites that were not selected for initial GRS development may still require protection during an oil spill, and they may be selected for future GRS development. Spill responders should consider the identification and location of these sites when committing spill equipment and personnel during large oil spills.

A note of caution: As of June 2003, only 33 of the 60 GRS sites have been surveyed and/or tested. Until each GRS has been verified and refined through site surveys and tests, they should be considered as preliminary tactics subject to modification, if necessary.
Table G-1-4. Zone 3 site selection table for Geographic Response Strategies.

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<th>Priority</th>
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* ESI information not available
D. SOUTHEAST ALASKA ZONE 4

The Work Group developed Table G-1-5 to aid in the selection of sites from within Southeast Alaska Zone 4. The table consists of identified sites in each row with information about resources at each site that could qualify the site as an area of major concern in the columns. Shaded rows in the table represent the sites in the zone (priority 1 sites) selected for initial GRS development.

Table G-1-1 contains the key to the codes used in the site selection table.

Figure G-1-5 shows the location of GRS sites in Zone 4.

Sites that were not selected for initial GRS development may still require protection during an oil spill, and they may be selected for future GRS development. Spill responders should consider the identification and location of these sites when committing spill equipment and personnel during large oil spills.

A note of caution: As of June 2003, only 33 of the 60 GRS sites have been surveyed and/or tested. Until each GRS has been verified and refined through site surveys and tests, they should be considered as preliminary tactics subject to modification, if necessary.
### Table G-1-5. Zone 4 site selection table for Geographic Response Strategies.

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<th>lon (W)</th>
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<th>Fish</th>
<th>Birds</th>
<th>Coastal Habitat</th>
<th>Cultural Resources</th>
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<th>Recreational Use</th>
<th>Commercial Fishing</th>
<th>Land Management</th>
<th>Waterfront Activity</th>
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<td>Cannery Cove/Donkey Bay</td>
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* ESI information not available

**NOTE:** Resource codes key can be found in Table G-1-1 on page G-1-2.
E. SOUTHEAST ALASKA ZONE 5

The Work Group developed Table G-1-6 to aid in the selection of sites from within Southeast Alaska Zone 5. The table consists of identified sites in each row with information about resources at each site that could qualify the site as an area of major concern in the columns. Shaded rows in the table represent the sites in the zone (priority 1 sites) selected for initial GRS development.

Table G-1-1 contains the key to the codes used in the site selection table.

Figure G-1-6 shows the location of GRS sites in Zone 5.

Sites that were not selected for initial GRS development may still require protection during an oil spill, and they may be selected for future GRS development. Spill responders should consider the identification and location of these sites when committing spill equipment and personnel during large oil spills.

A note of caution: As of June 2003, only 33 of the 60 GRS sites have been surveyed and/or tested. Until each GRS has been verified and refined through site surveys and tests, they should be considered as preliminary tactics subject to modification, if necessary.
Table G-1-6. Zone 5 site selection table for Geographic Response Strategies.

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<th>ESI Map #</th>
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<th>Lon (W)</th>
<th>Marine Mammals</th>
<th>Fish</th>
<th>Birds</th>
<th>Coastal Habitat</th>
<th>Cultural Resources</th>
<th>Subsistence Use</th>
<th>Recreational Use</th>
<th>Commercial Fishing</th>
<th>Land Management</th>
<th>Waterfront Activity</th>
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<td>Mitchell Bay/Angoon</td>
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* ESI information not available

NOTE: Resource codes key can be found in Table G-1-1 on page G-1-2.
F. SOUTHEAST ALASKA ZONE 6

The Work Group developed Table G-1-7 to aid in the selection of sites from within Southeast Alaska Zone 6. The table consists of identified sites in each row with information about resources at each site that could qualify the site as an area of major concern in the columns. Shaded rows in the table represent the sites in the zone (priority 1 sites) selected for initial GRS development.

Table G-1-1 contains the key to the codes used in the site selection table.

Sites that were not selected for initial GRS development may still require protection during an oil spill, and they may be selected for future GRS development. Spill responders should consider the identification and location of these sites when committing spill equipment and personnel during large oil spills.

A note of caution: As of June 2003, only 33 of the 60 GRS sites have been surveyed and/or tested. Until each GRS has been verified and refined through site surveys and tests, they should be considered as preliminary tactics subject to modification, if necessary.

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**SELECTED SITES for GEOGRAPHIC RESPONSE STRATEGIES**

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<td>Neka Bay</td>
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<td>Berg Bay</td>
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<td>SE06-05</td>
<td>Hugh Miller Inlet</td>
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<td>N. Beardslee Islands</td>
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Figure G-1-7. Southeast Alaska GRS Index Map Zone 6.
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<th>Priority</th>
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<th>ESI Map #</th>
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<th>lon (W)</th>
<th>Marine Mammals</th>
<th>Fish</th>
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**NOTE:** Resource codes key can be found in Table G-1-1 on page G-1-2.
G. SOUTHEAST ALASKA ZONE 7

The Work Group developed Table G-1-8 to aid in the selection of sites from within Southeast Alaska Zone 7. The table consists of identified sites in each row with information about resources at each site that could qualify the site as an area of major concern in the columns. Shaded rows in the table represent the sites in the zone (priority 1 sites) selected for initial GRS development.

Table G-1-1 contains the key to the codes used in the site selection table.

Figure G-1-8 shows the location of GRS sites in Zone 7.

Sites that were not selected for initial GRS development may still require protection during an oil spill, and they may be selected for future GRS development. Spill responders should consider the identification and location of these sites when committing spill equipment and personnel during large oil spills.

A note of caution: As of June 2003, only 33 of the 60 GRS sites have been surveyed and/or tested. Until each GRS has been verified and refined through site surveys and tests, they should be considered as preliminary tactics subject to modification, if necessary.
Table G-1-8. **Zone 7** site selection table for Geographic Response Strategies.

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<th>Locations</th>
<th>Priority</th>
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<th>ESI Map #</th>
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<th>Lon (W)</th>
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<td>T,J,M</td>
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* ESI information not available

**NOTE:** Resource codes key can be found in Table G-1-1 on page G-1-2.
H. SOUTHEAST ALASKA ZONE 8

The Work Group developed Table G-1-9 to aid in the selection of sites from within Southeast Alaska Zone 8. The table consists of identified sites in each row with information about resources at each site that could qualify the site as an area of major concern in the columns. Shaded rows in the table represent the sites in the zone (priority 1 sites) selected for initial GRS development.

Table G-1-1 contains the key to the codes used in the site selection table.

Figure G-1-9 shows the location of GRS sites in Zone 8.

Sites that were not selected for initial GRS development may still require protection during an oil spill, and they may be selected for future GRS development. Spill responders should consider the identification and location of these sites when committing spill equipment and personnel during large oil spills.

A note of caution: As of June 2003, only 33 of the 60 GRS sites have been surveyed and/or tested. Until each GRS has been verified and refined through site surveys and tests, they should be considered as preliminary tactics subject to modification, if necessary.
Table G-1-9. **Zone 8** site selection table for Geographic Response Strategies.

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<th>Locations</th>
<th>Priority</th>
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<th>ESI Map #</th>
<th>lat (N)</th>
<th>lon (W)</th>
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<th>Waterfront Activity</th>
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<td></td>
<td>Skagway A-1</td>
<td>59° 12'</td>
<td>135° 18'</td>
<td>S</td>
<td></td>
<td>T,M</td>
<td></td>
<td></td>
<td></td>
<td>F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chilkat Island</td>
<td></td>
<td>Skagway A-1</td>
<td></td>
<td>59° 01'</td>
<td>135° 15'</td>
<td>S,H</td>
<td>C</td>
<td>T,R,K</td>
<td>M</td>
<td>T,K</td>
<td>I</td>
<td>S</td>
<td>P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Portage Cove</td>
<td></td>
<td>Skagway A-2</td>
<td></td>
<td>59° 14'</td>
<td>135° 20'</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seduction Point</td>
<td></td>
<td>Skagway A-1</td>
<td></td>
<td>59° 04'</td>
<td>135° 18'</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sullivan Island</td>
<td></td>
<td>Juneau D-4</td>
<td></td>
<td>58° 55'</td>
<td>135° 18'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* ESI information not available

NOTE: Resource codes key can be found in Table G-1-1 on page G-1-2.
I. **SOUTHEAST ALASKA ZONE 9**

The Work Group developed Table G-1-10 to aid in the selection of sites from within Southeast Alaska Zone 9. The table consists of identified sites in each row with information about resources at each site that could qualify the site as an area of major concern in the columns. Shaded rows in the table represent the sites in the zone (priority 1 sites) selected for initial GRS development.

Table G-1-1 contains the key to the codes used in the site selection table.

Figure G-1-10 shows the location of GRS sites in Zone 9.

Sites that were not selected for initial GRS development may still require protection during an oil spill, and they may be selected for future GRS development. Spill responders should consider the identification and location of these sites when committing spill equipment and personnel during large oil spills.

**A note of caution:** As of June 2003, only 33 of the 60 GRS sites have been surveyed and/or tested. Until each GRS has been verified and refined through site surveys and tests, they should be considered as preliminary tactics subject to modification, if necessary.

---

**Figure G-1-10. Southeast Alaska GRS Index Map Zone 9.**

SELECTED SITES for GEOGRAPHIC RESPONSE STRATEGIES

<table>
<thead>
<tr>
<th>Site Code</th>
<th>Site Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE09-01</td>
<td>Ankau Lagoon</td>
</tr>
<tr>
<td>SE09-02</td>
<td>Blizhni Pt. (Disenchantment Bay)</td>
</tr>
<tr>
<td>SE09-03</td>
<td>Situk River - mouth</td>
</tr>
</tbody>
</table>

May 2003
Table G-1-10. **Zone 9** site selection table for Geographic Response Strategies.

<table>
<thead>
<tr>
<th>Locations</th>
<th>Priority</th>
<th>GRS #</th>
<th>ESI Map #</th>
<th>lat (N)</th>
<th>lon (W)</th>
<th>Marine Mammals</th>
<th>Fish</th>
<th>Birds</th>
<th>Coastal Habitat</th>
<th>Cultural Resources</th>
<th>Subsistence Use</th>
<th>Recreational Use</th>
<th>Commercial Fishing</th>
<th>Land Management</th>
<th>Waterfront Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blizinhi Pt.-Disenchantment Bay</td>
<td>1</td>
<td>SE09-02</td>
<td>Yakutat D-56.6</td>
<td>59° 50'</td>
<td>139° 49'</td>
<td>H</td>
<td>M,K</td>
<td>M</td>
<td>R</td>
<td></td>
<td>N</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Situk River</td>
<td>1</td>
<td>SE09-03</td>
<td>Yakutat B-5</td>
<td>59° 26'</td>
<td>139° 32'</td>
<td>H, E,S</td>
<td>C,S</td>
<td>T,M</td>
<td>R</td>
<td>F</td>
<td>H</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disenchantment Bay-N.</td>
<td>2</td>
<td>SE09-03</td>
<td>Yakutat D-5</td>
<td>59° 59'</td>
<td>139° 32'</td>
<td>H, R</td>
<td>M,C,K</td>
<td>R,K</td>
<td>I</td>
<td>H</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Libuya Bay</td>
<td>2</td>
<td>M.t. Fairweather C-5</td>
<td>58° 38'</td>
<td>137° 34'</td>
<td>R</td>
<td>C</td>
<td>M,R,I</td>
<td>M</td>
<td></td>
<td>H</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrowhead N. Tsan Fjord</td>
<td>3</td>
<td>Icy Bay</td>
<td>60° 11'</td>
<td>141° 41'</td>
<td>H</td>
<td>C</td>
<td>M,R</td>
<td></td>
<td></td>
<td>H</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kageet Pt.-Icy Bay</td>
<td>3</td>
<td>Bering Glacier A-1</td>
<td>60° 03'</td>
<td>141° 11'</td>
<td>C</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry Bay</td>
<td>2</td>
<td>Icy Bay</td>
<td>59° 07'</td>
<td>138° 37'</td>
<td>O,H</td>
<td>E,S</td>
<td>C</td>
<td>F</td>
<td>H</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Shore of Icy Bay</td>
<td></td>
<td>Icy Bay</td>
<td>59° 56'</td>
<td>141° 22'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pt. Mersby</td>
<td></td>
<td>Yakutat C-7</td>
<td>59° 41'</td>
<td>140° 19'</td>
<td>H</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sitkagi Bluffs</td>
<td></td>
<td>Yakutat C-8</td>
<td>59° 42'</td>
<td>140° 41'</td>
<td>S</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yakutat Foreland rivers</td>
<td></td>
<td>Yakutat B-4</td>
<td>59° 15'</td>
<td>139° 52'</td>
<td>S,H</td>
<td>E,S</td>
<td>C</td>
<td>M,T</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** Resource codes key can be found in Table G-1-1 on page G-1-2.

Southeast Alaska SCP: GRS, Part One

G-1-20
**PART TWO – GENERAL PROTECTION/RECOVERY TACTICS**

This section contains generalized oil spill response tactics that were used to develop the specific strategies contained in Section 3. Each general tactic description contains objectives, implementation instructions, response resources required, and deployment considerations and limitations. These general tactics are shown as symbols on the GRS maps and the required resources have been adapted to the specific site and listed in the GRS tables in Section 3. Equipment classifications are taken from the World Catalog of Oil Spill Response Products.

**VESSEL CLASSIFICATION**

The following table contains vessel classifications used in this document.

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Class 1 vessels are large, deep draft, steel hull vessels generally longer than 150 ft. and over 1,500 HP. These vessels are capable of providing all offshore services required during a response, i.e.: major skimming systems, berthing, command vessel hauling cargo, etc. They generally have large open rear decks, elevated wheelhouses and are USCG inspected. They can be used in any offshore region of Alaska. These vessels may be able to provide limited support services to other vessels in the fleet, i.e.: berthing, meals, fuel, water, repair, etc. They are not restricted by seasonal or most sea ice constraints.</td>
</tr>
<tr>
<td>2</td>
<td>Class 2 vessels are slightly smaller that Class 1 vessels, typically less that 150 ft. in length. All are steel hulled with drafts generally less than 12 ft. They have forward or aft houses, (can include larger LCMs), and have adequate deck space for deployment/operation of VOSS systems, boom deployment/towing, and barge assist. They may have limited accommodation space. These vessels may be able to provide limited support services to other vessels in the fleet, i.e.: fuel, water, repair, etc. They are not restricted by seasonal or most sea ice constraints.</td>
</tr>
<tr>
<td>3</td>
<td>Class 3 vessels are the largest of the fishing fleet, including large seiners, longliners, gillnet boats and tenders. They may have steel, aluminum or fiberglass hulls. Deck space is adequate for small skimming system deployment/operation. HP is generally over 400, allowing them to tow boom up to ocean size. These vessels have accommodations, but are usually limited to the vessel crew plus 1 or 2. They are not restricted by seasonal use, but will be restricted in sea ice concentration over 70% ice cover.</td>
</tr>
<tr>
<td>4</td>
<td>Class 4 vessels are smaller fishing vessels, including seiners, longliners and gillnet boats. They have limited deck space and accommodations. They can be used for towing ocean boom in areas of lower current speed, but are well-suited for towing protected-water or calm-water boom. These vessels work best in nearshore areas with support from Class 1, 2 or 3 vessels. They are perfect for bays and protected waters. They are shallow draft vessels, made of aluminum or fiberglass and usually have no additional accommodations space. They may be limited by seasonal constraints and are not expected to work in sea ice concentrations over 50% ice cover.</td>
</tr>
<tr>
<td>5</td>
<td>Class 5 vessels are small, generally less than 30 ft., with no accommodations. These day-use vessels are used for placing and towing protected-water or calm-water boom in nearshore areas or river mouths. They may be used for scouting, wildlife hazing/capture, and miscellaneous assignments within various on-water task forces. These vessels may be limited by seasonal constraints.</td>
</tr>
<tr>
<td>6</td>
<td>Class 6 vessels are work boats or skiffs, open small boat type vessels, generally with outboard motors and no accommodations. They may be used to handle protected-water or calm-water boom in nearshore areas or river mouths and other miscellaneous assignments within on-water task forces. Class 6 vessels are generally not suited for transport/towing/working in exposed waters or handling long arrays of boom.</td>
</tr>
<tr>
<td>7</td>
<td>Class 7 vessels are passenger charter vessels designed and licensed to carry passengers such as supervisors, media, or regulatory agency representatives. They are generally for day use and can also be used to support safety staff, wildlife hazing/capture, and logistics support.</td>
</tr>
<tr>
<td>8</td>
<td>Class 8 vessels are inspected or uninspected towing vessels, designed and equipped for towing large or small vessels.</td>
</tr>
<tr>
<td>9</td>
<td>Class 9 vessels are dive vessels, designed or equipped to support diving operations.</td>
</tr>
<tr>
<td>10</td>
<td>Class 10 vessels are salvage vessels, designed or equipped to support marine salvage operations.</td>
</tr>
<tr>
<td>11</td>
<td>Class 11 vessels are tank barges or tank vessels designed and equipped to carry liquid cargoes.</td>
</tr>
</tbody>
</table>

**SYMBOLS**

The following are the symbols used in the GRS maps to depict a general strategy:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Deflection Booming</td>
</tr>
<tr>
<td></td>
<td>Deflection Booming, River Mouth</td>
</tr>
<tr>
<td></td>
<td>Deflection Booming, Live</td>
</tr>
<tr>
<td>B.</td>
<td>Diversion Booming</td>
</tr>
<tr>
<td></td>
<td>Diversion Booming, Fixed</td>
</tr>
<tr>
<td>C.</td>
<td>Exclusion Booming</td>
</tr>
<tr>
<td>D.</td>
<td>Shoreside Recovery</td>
</tr>
<tr>
<td></td>
<td>Shoreside Recovery, Marine Access</td>
</tr>
<tr>
<td></td>
<td>Shoreside Recovery, Land Access</td>
</tr>
<tr>
<td>E.</td>
<td>Marine Recovery</td>
</tr>
<tr>
<td>F.</td>
<td>Free-oil Recovery</td>
</tr>
<tr>
<td></td>
<td>Free-oil Recovery, Shallow Water</td>
</tr>
<tr>
<td></td>
<td>Free-oil Recovery, Open Water</td>
</tr>
<tr>
<td>G.</td>
<td>Passive Recovery and Debris Removal</td>
</tr>
<tr>
<td></td>
<td>Passive Recovery and Debris Removal, Marine Access</td>
</tr>
<tr>
<td></td>
<td>Passive Recovery and Debris Removal, Shoreside Access</td>
</tr>
<tr>
<td></td>
<td>Passive Recovery, Marine Mammal Haulout</td>
</tr>
<tr>
<td>H.</td>
<td>Cold Water Deluge</td>
</tr>
<tr>
<td></td>
<td>Cold Water Deluge, Marine Access</td>
</tr>
<tr>
<td></td>
<td>Cold Water Deluge, Shoreside Access</td>
</tr>
<tr>
<td>I.</td>
<td>Dam</td>
</tr>
<tr>
<td></td>
<td>Dam</td>
</tr>
<tr>
<td></td>
<td>Underflow Dam</td>
</tr>
</tbody>
</table>
A. DEFLECTION BOOMING

Objective & Strategy

The objective of deflection booming is to direct spilled oil away from one location to another or to simply change the course of the slick. The two alternatives for this technique are Fixed Deflection and Live Deflection.

In fixed deflection, boom is anchored to the shoreline or bottom. This technique consists of oil spill boom placed at an angle to the current and uses the movement of the current to assist in response operations. One basic deployment technique for fixed deflection is to secure/anchor one end of the boom up-current from the selected deflection site. Then place additional anchor systems to the boom to achieve the desired deflection angle with the least amount of entrainment or escapement. Boom arrays may have to be cascaded in short sections to prevent entrapment.

In live deflection, the boom is attached to vessels and held in position by the power of the vessels or one end of the boom is anchored and the other end held in position with a vessel. Live deflection is a very difficult tactic to execute. It should only be utilized where fixed deflection can not be achieved, usually because deep water precludes anchoring.

Deflection Boom (single boom): Boom is deployed from a site at an optimum angle to the current and anchored to deflect the oil away from a location.

Deflection Boom (cascade): Several booms are deployed in a cascade configuration when a single boom cannot be used because of fast current or because it is necessary to leave openings in the boom for vessel traffic, etc. This configuration can be used in strong currents where it may be impossible to effectively deploy one continuous section of boom. Shorter sections of boom used in a cascade deployment are easier to handle in faster water, thereby increasing efficiency. Additional equipment may be required to set and maintain this system as compared to the single boom configuration.

Resources for this module have been defined as an increment of 200 ft. of boom with associated support equipment. Quantity of units required will be determined by site, and resource sets may need to be refined as site specific requirements dictate.

Note: Some of the figures in this section were taken from the Alaska Clean Seas Technical Manual with Alaska Clean Seas' permission.
**Resources**

**Deflection Booming, River Mouth**

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom</td>
<td>Calm/Protected water</td>
<td>Deflection booming</td>
<td>200'</td>
</tr>
<tr>
<td>Anchor systems</td>
<td>40 lbs.</td>
<td>Securing boom</td>
<td>2</td>
</tr>
<tr>
<td>Rigging/Tackle</td>
<td>Misc.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Deflection Booming, Exposed Shoreline**

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom**</td>
<td>Protected water</td>
<td>Deflection booming</td>
<td>200'</td>
</tr>
<tr>
<td>Anchor systems</td>
<td>≥ 60 lbs.</td>
<td>Securing boom</td>
<td>2</td>
</tr>
<tr>
<td>Rigging/Tackle</td>
<td>Misc.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Deflection Booming, Live**

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom</td>
<td>Protected water</td>
<td>Deflection booming</td>
<td>200'</td>
</tr>
<tr>
<td>Anchor Systems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rigging/Tackle</td>
<td>Misc.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Support Resources***

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vessels</td>
<td>Vessel Class 5/6</td>
<td>Booming support</td>
<td>2</td>
</tr>
<tr>
<td>Personnel***</td>
<td>Crew &amp; Tech/Shift</td>
<td></td>
<td>3 to 10</td>
</tr>
</tbody>
</table>

**Deployment Considerations and Limitations**

- Calm/Protected water boom (6’ x 24’ / 18” x 42”) are most commonly used for this tactic.
- Do not assume 100% efficiency with one boom system.
- Readjust angles and widths between boom sections as necessary to meet changing conditions (tides, currents, and winds).
- Constant monitoring of system efficiency is required.
- Deployment planning should be based on average high tidal conditions.

![Diagram of Typical Anchor System](image)

*Support resources may need to be re-evaluated, and in most cases decreased, when deploying multiple units or tending the systems after deployment.

** Boom types are defined in the World Oil Catalog.

*** Personnel includes vessel crew.
B. DIVERSION BOOMING

Objective & Strategy

The objective of diversion booming is to divert the spilled oil from one location or direction of travel to a specific site for recovery.

This technique consists of boom and anchor systems placed at an optimum angle to the current, using the movement of the current to assist in response operations. One basic deployment technique is to secure/anchor one end of the boom up-current from the selected recovery site, then secure additional anchor systems to the boom to achieve the desired diversion with the least amount of entrainment or escapement.

**Diversion Boom (single boom):** Boom is deployed from one bank at an optimum angle to the current and secured/anchored to divert the oil to an eddy, quiet water, or collection beach for recovery.

**Diversion Boom (cascade):** Several booms are deployed in a cascade configuration when a single boom cannot be used because of fast current or because it is necessary to leave openings in the boom for vessel traffic, etc. This configuration can be used in strong currents where it may be impossible to effectively deploy one continuous section of boom. Shorter sections of boom used in a cascade deployment are easier to handle in faster water, thereby increasing efficiency of oil control. Additional equipment may be required to set and maintain this system as compared to the single boom configuration.

Chevron boom configurations may be used in fast water. Two booms are deployed from an anchor in the middle of the stream/river and then attached to each bank. A closed chevron configuration is used to divide a slick for diversion to two or more recovery areas. An open chevron can be used where boat traffic must be able to pass. In the open chevron configuration the two booms are anchored separately midstream, with one anchor point up-stream or downstream of the other. An inverted chevron can also be used to funnel the oil slick to a marine recovery unit anchored mid-channel.

Resources for this module have been defined as an increment of 200 ft. of boom with associated support equipment. Quantity of units required will be determined by site and resource sets may need to be refined as site specific requirements dictate.

**Diversion Booming Deployment Configurations**

![Figure G-2-5. Diversion booming, open chevron.](image)

![Figure G-2-6. Diversion booming, closed chevron, on-shore skimming.](image)

![Figure G-2-7. Diversion booming, inverted chevron, marine skimming.](image)
**Resources**

**Diversion Booming, Fixed**

### Direct Resources

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom</td>
<td>Calm/Protected</td>
<td>Diversion booming</td>
<td>200</td>
</tr>
<tr>
<td>Anchor systems</td>
<td>40 lbs.</td>
<td>Securing boom</td>
<td>2</td>
</tr>
<tr>
<td>Rigging/Tackle</td>
<td>Misc.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Support Resources*

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vessels</td>
<td>Vessel Class 3/4/5/6</td>
<td>Booming support</td>
<td>2</td>
</tr>
<tr>
<td>Personnel**</td>
<td>Crew &amp; Tech./Shift</td>
<td></td>
<td>3 to 10</td>
</tr>
</tbody>
</table>

* Support Resources may need to be re-evaluated and in most cases decreased when deploying multiple units or tending the system after deployment.

** Personnel includes vessel crew.

### Deployment Considerations and Limitations

- Calm/Protected water boom are most commonly used for this tactic.
- Do not assume 100% efficiency with one boom system.
- Readjust angles and widths between boom sections as necessary to meet changing conditions.
- Constant monitoring of system efficiency is required.
- Deployment planning should be based on average high tidal conditions.
- See Figure G-2-8 for anchor system components.
- Title 16 permit required to work inside an anadromous stream. Due to the possibility of contaminating spawning habitat, avoid diverting and/or collecting oil inside a stream mouth if possible.
- See Figure G-2-15 for methods to keep oil from contaminating beaches at collection points.

### Chart

<table>
<thead>
<tr>
<th>CURRENT (Knots)</th>
<th>CURRENT (ft/second)</th>
<th>BOOM (Knots)</th>
<th>CURRENT (Knots)</th>
<th>CURRENT (ft/second)</th>
<th>BOOM (Knots)</th>
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<tbody>
<tr>
<td>1.5</td>
<td>2.5</td>
<td>30° to 42°</td>
<td>1.75</td>
<td>2.9</td>
<td>25° to 35°</td>
</tr>
<tr>
<td>2.0</td>
<td>3.4</td>
<td>22° to 30°</td>
<td>2.25</td>
<td>3.8</td>
<td>19° to 26°</td>
</tr>
<tr>
<td>2.5</td>
<td>4.2</td>
<td>17° to 24°</td>
<td>2.75</td>
<td>4.6</td>
<td>16° to 21°</td>
</tr>
<tr>
<td>3.0</td>
<td>5.0</td>
<td>15° to 19°</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Difficulty in deployment will increase and effectiveness will decrease as a function of water velocity.

*Figure G-2-8. Boom angle relative to current.*
C. **EXCLUSION BOOMING**

**Objective & Strategy**

The objective of exclusion booming is to exclude any oil slick from entering a sensitive area. This technique requires the area to be completely boomed off, essentially forming a barrier to protect the location. Conventional containment boom, tidal-seal boom, or a combination of each can be used to exclude spilled oil from a sensitive area. Typically, tidal-seal boom is deployed at the shoreline/water interface on both shores and is secured/anchored into position. Conventional containment boom is then connected to the tidal-seal boom and is secured with additional anchor systems to form a barrier and to maintain shape.

This technique is most efficient in low current areas. Freshwater outflow may assist in maintaining boom configuration and pushing oil away from the area inside the boom.

Resources for this module have been defined as an increment of 200 ft. of containment boom with at least 50 ft. of tidal-seal boom on each shoreward end along with associated support equipment. Quantity of units required will be determined by site, and resource sets may need to be refined as site specific requirements dictate.

**Exclusion Booming Deployment Configurations**

![Figure G-2-9. Exclusion booming.](image)

![Figure G-2-10. Tidal-seal boom cross section.](image)

![Figure G-2-11. Exclusion booming with apex for exposed shores or currents.](image)
**Exclusion Booming**

**Direct Resources**

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom</td>
<td>Calm or Protected water</td>
<td>Exclusion booming</td>
<td>200'</td>
</tr>
<tr>
<td>Boom</td>
<td>Tidal-seal</td>
<td>Exclusion booming</td>
<td>100'</td>
</tr>
<tr>
<td>Anchor systems</td>
<td>40 lbs. or 60 lbs.</td>
<td>Securing boom</td>
<td>4</td>
</tr>
<tr>
<td>Inflator &amp; Pump</td>
<td>Leaf blower &amp; 2&quot; pump with jumpers</td>
<td>Filling tidal-seal boom</td>
<td></td>
</tr>
<tr>
<td>Rigging/Tackle</td>
<td>Misc.</td>
<td></td>
<td></td>
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**Support Resources**

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vessels</td>
<td>Vessel Class 3/4/5/6</td>
<td>Booming support</td>
<td>2</td>
</tr>
<tr>
<td>Personnel**</td>
<td>Crew &amp; Tech/Shift</td>
<td></td>
<td>3 to 10</td>
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</table>

* Support Resources may need to be re-evaluated, and in most cases decreased, when deploying multiple units or tending the system after deployment.

**Deployment Considerations and Limitations**

- Calm/Protected water boom, and tidal-seal boom are most commonly used for this tactic.
- Do not assume 100% efficiency with one boom system.
- Readjust anchors to maintain shape through tide cycles.
- Constant monitoring of system efficiency is required.
- Deployment planning should be based on average high tidal conditions.
- Technique may be ineffective in currents over 3/4 of a knot.
- See Figure G-2-3 for boom angle relative to current.
- See Figure G-2-4 for anchor system components.
- A gate may be installed to allow vessels to pass inside the boom.
D. SHORESIDE RECOVERY

Objective & Strategy

The objective of the shoreside recovery unit is to recover spilled oil that has been diverted to a designated recovery site accessible from the shore.

Numerous types of recovery systems (skimmers) are available to recover many types of oil. Recovery systems vary in size and support requirements. There is also a wide range of options for temporary oil storage. Access to the recovery site and the oil type may influence/dictate the options of equipment to be used. If access is restricted to four wheel ATVs, then the systems chosen need to be light enough to be transported by ATV and capable of being setup/deployed by a minimal number of personnel. If access is not restricted, larger systems can be used and deployed by heavy lifting equipment. If the site is accessible by road, vacuum trucks may be used for oil recovery, storage and transport. In all cases, every effort should be made to protect the collection beach. See Figure G-2-13.

The general strategy is to:

- Identify the primary recovery site and access capabilities.
- Determine the appropriate recovery and storage systems based on oil, access, and deployment restrictions.
- Mobilize and deploy equipment to recover and temporarily store the oil from the recovery site.

Resources for this module vary and have been divided into two categories: Restricted Access and No Restrictions. Each unit is defined to contain a recovery device, a storage device and the associated direct and support equipment and materials. Quantity of units required will be determined by site, and resource sets may need to be refined as site specific requirements dictate.

---

Figure G-2-12. Shoreside recovery unit general configuration.

Figure G-2-13. Shoreside recovery unit equipment options.

Figure G-2-14. Shoreside recovery unit decant illustration.

---
Resources

Shoreside Recovery, Marine Access

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collection System</td>
<td>Calm/Protected water skimmer</td>
<td>Oil recovery</td>
<td>1</td>
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<tr>
<td>Storage Device</td>
<td>Portable/Easy Setup</td>
<td>Oil storage</td>
<td>1</td>
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<tr>
<td>Hoses &amp; Fittings</td>
<td>Misc.</td>
<td>System support</td>
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<tr>
<td>Rigging/Tackle</td>
<td>Misc.</td>
<td>System support</td>
<td></td>
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Support Resources*

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<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
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<td>Vessels</td>
<td>Vessel Class 3/4/5/6</td>
<td>Booming support</td>
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<td>Personnel**</td>
<td>Response Tech./Shift</td>
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Shoreside Recovery, Land Access

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<th>Function</th>
<th>Quantity</th>
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<tr>
<td>Collection System</td>
<td>Calm/Protected water skimmer</td>
<td>Oil recovery</td>
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<tr>
<td>Storage Device</td>
<td>Collapsible Tank</td>
<td>Intermediate storage</td>
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<td>Storage Device</td>
<td>Vacuum Truck</td>
<td>Storage/Transport</td>
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</tr>
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<td>Hoses &amp; Fittings</td>
<td>Misc.</td>
<td>System support</td>
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<tr>
<td>Rigging/Tackle</td>
<td>Misc.</td>
<td>System support</td>
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Support Resources*

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<th>Function</th>
<th>Quantity</th>
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</thead>
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<td>Vessels</td>
<td>Vessel Class 3/4/5/6</td>
<td>Booming support</td>
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</tr>
<tr>
<td>Personnel**</td>
<td>Response Tech./Shift</td>
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<td>3</td>
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<tr>
<td>Trucks &amp; Trailers</td>
<td>Equipment &amp; personnel transport</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

* Support Resources may need to be re-evaluated, and in most cases decreased, when deploying multiple units or tending systems after deployment.

** Personnel does not include vessel crews.

Deployment Considerations and Limitations

- Access and oil type may influence equipment options.
- Recovery vessel needs to coordinate closely with diversion booming units.
- Monitor and reposition as necessary through tide cycles.
- Constant monitoring of system efficiency is required.
- Where access is restricted, system efficiency should be increased to minimize excess waste/water, and decant options should be reviewed.
- Deployment planning should be based on average high tidal conditions.
- A pump may be required to move oil from storage to vacuum truck or other mobile storage.
- May need to request a permit from ADEC to decant free water from storage back into recovery area.
- Use one of the methods shown in Figure G-2-15 to protect the collection site from contamination.

Figure G-2-15. Methods to keep oil from contaminating collection beaches.
E. **MARINE RECOVERY**

**Objective & Strategy**

The objective of the marine recovery unit is to recover spilled oil that has been diverted to a designated recovery site accessible only from the water.

Numerous types of recovery systems and temporary oil storage devices are available to recover a variety of oil types. Oil type, local conditions and available vessels will influence or dictate the recovery system. Access to recovery sites is typically restricted to shallow draft vessels due to proximity of the shore and water depths at low tide. The water depth, including area of maneuverability, should be considered in selection of vessels and storage systems. The size of recovery and storage system devices varies and needs to be considered when matching with the deployment vessel. Capability of the vessel to lift and deploy the recovery devices and to handle the storage devices in shallow water and possible fast current should be considered. Recovery system efficiency varies depending on oil type and encounter rates. To minimize excess waste/water content of recovery fluids, oleophillic skimming systems and decanting procedures are recommended.

The general strategy is to:
- Identify the primary recovery site and assess the site conditions.
- Determine the appropriate recovery and storage systems based on oil type, site conditions and deployment vessel capabilities.
- Mobilize and deploy equipment to recover and store the oil from the designated recovery site.

Resources for this module have been defined as a recovery system, a storage device, a deployment vessel along with the associated support equipment and materials. Quantity of units required will be determined by site and resource sets may need to be refined as site specific requirements dictate.

**Marine Recovery Unit General Configuration**

![Marine recovery unit](image)

Figure G-2-16. Marine recovery unit.

**Marine Recovery Unit Equipment Options**

- **Oleophilic – Vertical Mop Recovery System**
  - Shallow Water Deployment Platform
  - Hydraulic Power Pack/Control Panel
  - Boom Tag Line

![Vertical mop recovery system](image)

Figure G-2-17. Vertical mop recovery system.

- **Weir Recovery System**
  - Shallow Water Vessel
  - Hydraulic Power Pack/Control Panel
  - Weir Skimming System

![Weir recovery system](image)

Figure G-2-18. Weir recovery system.
Resources

Marine Recovery, Exposed Shoreline

Direct Resources

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
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<tr>
<td>Collection System</td>
<td>Situation dependent</td>
<td>Oil recovery</td>
<td>1</td>
</tr>
<tr>
<td>Storage Device</td>
<td>Situation dependent</td>
<td>Oil storage</td>
<td>1</td>
</tr>
<tr>
<td>Hoses &amp; Fittings</td>
<td>Misc.</td>
<td>System support</td>
<td></td>
</tr>
<tr>
<td>Rigging/Tackle</td>
<td>Misc.</td>
<td>System support</td>
<td></td>
</tr>
<tr>
<td>Deployment Platform</td>
<td>Mini-Barge or Vessel</td>
<td>System deployment</td>
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Support Resources*

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel**</td>
<td>Crew &amp; Tech./Shift</td>
<td></td>
<td>3 to 5</td>
</tr>
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</table>

Deployment Considerations and Limitations

- Water depth and oil type may influence equipment options.
- Recovery vessel needs to coordinate closely with diversion booming units.
- Monitor and reposition as necessary through tide cycles.
- Constant monitoring of system efficiency is required.
- Procedure to decant should be considered.
- Deployment planning should be based on average high tidal conditions and take into account low tide water depths.
- Vessel master should use extreme caution when maneuvering primary storage devices around submerged rocks.

* Support Resources may need to be re-evaluated, and in most cases decreased, when deploying multiple units or tending systems after deployment.

** Personnel includes vessel crew.

Figure G-2-19. Towable open primary storage device.

Figure G-2-20. Towable, flexible primary storage device.

Figure G-2-21. Deck tank primary storage device.

Figure G-2-22. Towable Mini-barge primary storage device.
F. **FREE-OIL RECOVERY**

**Objective & Strategy**

The objective of the free-oil recovery is to maximize the containment and recovery of spilled oil on the water in the nearshore environment, thus minimizing impact to sensitive areas. Shallow-water Free-oil recovery strike teams are typically designed to address the fragmented rafts, windrows, slicks and sheens that have escaped the high volume containment and recovery efforts, or are in areas where the high volume containment and recovery systems are unable to operate.

Free-Oil strike teams are comprised of vessels with containment boom for oil containment and concentration, skimming systems for recovery, and primary storage devices for temporary storage before transfer to secondary storage.

There are typically three primary deployment configurations for Nearshore Free-Oil strike teams.

- **U - Boom System**
- **V - Boom System**
- **J - Boom System**

The **U-Boom System** consists of vessels towing boom in a “U” configuration concentrating spilled oil into the back of the pocket formed by the boom. This technique can also be used solely for oil concentration by leaving an opening secured by chain in the apex of the boom (see figure G-2-27). This is often referred to as a “gated U - Boom”. Typically, combinations of these configurations are used to enhance concentration and containment effectiveness. The spilled oil is then collected with a recovery device (skimmer), typically deployed by an additional vessel, and stored in a storage device.

The **V-Boom System** consists of vessels towing boom and a recovery device (skimmer) in a “V” configuration. The spilled oil is concentrated with the boom toward the back apex where a skimmer is located for oil recovery. Typically, these recovery systems are designed with a limited amount of storage built in and are either offloaded frequently or are augmented with additional storage devices and transfer systems.

The **J-Boom System** consists of vessels towing boom in a “J” configuration, concentrating the spilled oil for recovery into the back of the pocket formed by the boom. The rear towing vessel is outfitted with a recovery device (skimmer) for deployment along the vessel side where the apex of the boom is formed. The oil is then collected with the skimmer and stored in a primary storage device, such as a mini barge. This system is often utilized in place of the U-Boom system, when the response is limited by the amount of vessels available and when maneuverability is not as critical.

The general strategy is to:

- Identify the trajectory and location of the spilled oil by performing overflight surveillance and vector evaluations.
- Select a deployment configuration that best supports the site conditions and available resources.
- Mobilize and deploy Free-Oil Recovery teams as determined by overflight information and response priority.

Resources for this module have been defined as vessels, boom, skimmers, primary storage devices, and personnel. Configuration type and quantity of strike teams required will be determined by site conditions, spilled oil type and volume, area of coverage, as well as resource availability. Resource sets may need to be refined as site specific requirements dictate. Combinations of free-oil recovery and diversion are often a consideration.
Resources

Free-oil Recovery, Shallow Water

Direct Resources

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<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>Containment Boom</td>
<td>Protected water</td>
<td>Containment</td>
<td>up to 600'</td>
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<tr>
<td>Skimming System</td>
<td>Situation dependent</td>
<td>Oil Recovery</td>
<td>1</td>
</tr>
<tr>
<td>Primary Storage Device</td>
<td>Situation dependent</td>
<td>Oil Storage</td>
<td>2</td>
</tr>
<tr>
<td>Misc. Tow Bridges, Line &amp; Buys</td>
<td>Situation dependent</td>
<td>System Support</td>
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Support Resources*

<table>
<thead>
<tr>
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<th>Function</th>
<th>Quantity</th>
</tr>
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<tr>
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<td>Vessel Crew</td>
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<td>Vessel</td>
<td>Class 3/4</td>
<td>Recovery</td>
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</tr>
<tr>
<td>Vessel</td>
<td>Class 3/4</td>
<td>Storage/Transport</td>
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</table>

Free-oil Recovery, Open Water

Direct Resources

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<th>Description</th>
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<th>Quantity</th>
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<tbody>
<tr>
<td>Containment Boom</td>
<td>Open water</td>
<td>Containment</td>
<td>up to 1800'</td>
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<tr>
<td>Skimming System</td>
<td>Situation dependent</td>
<td>Oil Recovery</td>
<td>1</td>
</tr>
<tr>
<td>Primary Storage Device</td>
<td>Situation dependent</td>
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<td>2</td>
</tr>
<tr>
<td>Misc. Tow Bridges, Line &amp; Buys</td>
<td>Situation dependent</td>
<td>System Support</td>
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Support Resources*

<table>
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<tr>
<th>Description</th>
<th>Type</th>
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<th>Quantity</th>
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<td>Personnel</td>
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<td>Vessel Crew</td>
<td>7 to 9</td>
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<td>Vessel</td>
<td>Class 2/3/4</td>
<td>Boom/Recovery</td>
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<td>Vessel</td>
<td>Class 3/4</td>
<td>Storage/Transport</td>
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</tr>
</tbody>
</table>

* Support Resources may need to be re-evaluated, and in most cases decreased, when deploying multiple units or tending systems after deployment.

Deployment Considerations and Limitations

- Site conditions may influence deployment configuration options.
- Combinations of configurations may optimize recovery.
- Procedures for decant and logistics for oil transport and disposal should be considered.
- Daily fair and foul weather evaluations are recommended, and should include distance to safe harbor, transit times and exposure of vessels.
G. PASSIVE RECOVERY AND DEBRIS REMOVAL

Objective & Strategy

The objective of the passive recovery and debris removal unit is to minimize the impact to designated shoreline by reducing the potential oil volume through passive recovery as well as by removing driftwood and other debris that spilled oil may contaminate.

Passive recovery is performed by placing sorbent materials at or near sensitive areas to collect oil and thus minimize impacts. This is usually accomplished by anchoring rows of sorbent boom or snare line1 (oleophillic pom poms attached to a rope) between the high and low tide zones on the shoreline. Passive recovery for marine mammal haul-outs is accomplished by broadcasting natural sorbent material, such as peat moss or sphagnum moss, on the haulout.

Passive recovery can be deployed along selected shorelines prior to impact to reduce the quantity of oil that might otherwise adhere to the beach. This technique can also be applied to shoreline that has already been oiled to help keep the mobile oil from refloating and migrating to other non-impacted shorelines. In either case, the recovery must be monitored after each tide and recovery materials must be replaced as necessary.

The debris removal component of this tactic is to remove or re-locate excessive concentrations of driftwood and other debris from areas of the shoreline likely to be oiled. The impact area is typically defined as the low to mean high tide zone of the shoreline. The debris removal tactic is normally considered to be an independent unit but, in this case, has been combined with the passive recovery unit to optimize resource utilization.

Although this tactic can produce a significant solid waste stream requiring logistical support, it can be very effective due to the ability to rapidly deploy. Once deployed, the snare line needs to be monitored and periodically replaced to avoid diminished effectiveness due to saturation.

Access to selected shoreline may be accomplished from the water using shallow water platforms such as landing craft, or from on-land, using ATV’s or other four-wheel drive vehicles.

The general strategy is to:

- Identify the trajectory of the spilled oil and select shoreline to be protected, as well as identify natural recovery sites where debris may concentrate.
- Evaluate access restrictions and select appropriate marine deployment platforms or on-land vehicles.
- Mobilize and deploy personnel with tools and materials to selected shorelines.

Resources for this module have been defined as personnel with tools and sorbent materials. Quantity of units required will be determined by site and resource sets may need to be refined as site-specific requirements dictate.

---

1 Snare line is also sold as Viscous Sweep and Snare-On-A-Rope. The primary difference is the distance between the pompoms.
## Resources

### Passive Recovery and Debris Removal, Marine Access

#### Direct Resources

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snare Boom</td>
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<td>Oil recovery</td>
<td>3,600'</td>
</tr>
<tr>
<td>Rebar Stakes/Small Anchor Materials</td>
<td>Optional</td>
<td>Snare Boom Placement</td>
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<td>Hand Tools and Line</td>
<td>Misc.</td>
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<td>Chainsaw</td>
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<tr>
<td>Bags/Super Sacks</td>
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<td>Solid Waste Collection</td>
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#### Support Resources*

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<td>Landing Craft</td>
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### Passive Recovery and Debris Removal, Shoreside Access

#### Direct Resources

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<td>Rebar Stakes/Small Anchor Materials</td>
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<td>Hand Tools and Line</td>
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<td>System support</td>
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<td>Chainsaw</td>
<td>Optional</td>
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<tr>
<td>Bags/Super Sacks</td>
<td>Optional</td>
<td>Solid Waste Collection</td>
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#### Support Resources*

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<th>Quantity</th>
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<td>2</td>
</tr>
<tr>
<td>Trucks with ATV Trailers</td>
<td>Shallow Draft</td>
<td>Mobilization Support</td>
<td>2</td>
</tr>
</tbody>
</table>

## Passive Recovery - Marine Mammal Haulout***

#### Direct Resources

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sorbent</td>
<td>Peat Moss Sphagnum Moss</td>
<td>Oil recovery</td>
<td>1/2 #/sq. ft.</td>
</tr>
<tr>
<td>Broadcast System</td>
<td>Blower Hydro-seeder</td>
<td>Deploy Sorbent</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Support Resources*

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>Crew &amp; Tech./Shift</td>
<td>Vessel Crew</td>
<td>4 to 6</td>
</tr>
<tr>
<td>Vessel</td>
<td>Class 2/3/4</td>
<td>Transport &amp; Broadcast</td>
<td>1</td>
</tr>
<tr>
<td>Vessel</td>
<td>Class 5</td>
<td>Hand Broadcast</td>
<td>1</td>
</tr>
</tbody>
</table>

* Support resources may need to be re-evaluated, and in most cases decreased, when deploying multiple units or tending systems after deployment.

** Personnel does not include Landing Craft crew.

*** Passive recovery for marine mammal haulouts should only be attempted after consultation with the National Marine Fisheries Service.

## Deployment Considerations and Limitations

- Shoreline access may influence deployment platform options.
- Passive recovery materials need tending and periodic replacement.
- Logistics for solid waste transport and disposal need to be considered.
- Contact NMFS before disturbance of marine mammals.
H. COLD WATER DELUGE

Objective & Strategy

Cold water deluge is typically a protective counter measure with the objective of minimizing the impact to designated shoreline areas. This is achieved by creating a flood of water that forms a hydraulic head in the beach substrate above the sea water level. The flood raises the normal water table, producing free flowing water down the beach surface which prevents the oil from adhering to the shoreline and penetrating the substrate. This strategy can also be used to enhance shoreside recovery.

Deluge is performed by placing perforated hose along the high tide area of the shoreline, connecting it to a high volume (typically six inch) pump. Suction hose is connected to the pump from the source of water, and when started, the water is pumped through the perforated hose to create a flood. This technique can be deployed along selected shoreline prior to impact to reduce the quantity of oil that might otherwise adhere to the beach. This technique can also be applied to assist in treating shoreline that has already been impacted. One of the most common applications is deployment of this technique in unison with Diversion and Marine Recovery units where spilled oil is entrapped or intentionally grounded. Access to selected shoreline may be accomplished from the water using shallow water platforms such as landing craft or, from on-land using ATVs or other four-wheel drive vehicles.

The general strategy is to:

- Identify the trajectory of the spilled oil and select shoreline to be protected, as well as identify natural recovery sites that may be intentionally used for entrapment.
- Evaluate access restrictions and select appropriate marine deployment platform, or on-land vehicles.
- Mobilize and deploy personnel and equipment to selected shoreline sites.

Resources for this module have been defined as personnel with pumps and hoses. Quantity of units required will be determined by site, and resource sets may need to be refined as site specific requirements dictate.

Deluge Unit General Configuration

Figure G-2-30. Aerial view of a deluge configuration marine access.

Figure G-2-31. Deluge hydraulic shoreline cross-section profile.
## Resources

### Cold Water Deluge, Marine Access (CWD)

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pump</td>
<td>6” Diesel - Trash</td>
<td>Water Flood</td>
<td>2</td>
</tr>
<tr>
<td>Perforated Hose</td>
<td>6” Lay Flat – Discharge w/Holes</td>
<td>Deluge Header</td>
<td>400'</td>
</tr>
<tr>
<td>Discharge Hose</td>
<td>6” Lay Flat</td>
<td>Header Supply</td>
<td>400'</td>
</tr>
<tr>
<td>Suction Hose</td>
<td>6” Suction</td>
<td>Pump Supply</td>
<td>2 x 20'</td>
</tr>
<tr>
<td>Kamlock Fittings, Pipe Fittings &amp; Basket Strainers</td>
<td>6” Assorted</td>
<td>Hose Connections</td>
<td></td>
</tr>
</tbody>
</table>

**Support Resources**

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel**</td>
<td>Crew &amp; Tech / Shift</td>
<td>Access / Deployment</td>
<td>1</td>
</tr>
<tr>
<td>Landing Craft</td>
<td>Shallow Draft</td>
<td>Access / Deployment</td>
<td>1</td>
</tr>
</tbody>
</table>

### Cold Water Deluge, Shoreside Access (CWD-S)

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pump</td>
<td>6” Diesel - Trash</td>
<td>Water Flood</td>
<td>2</td>
</tr>
<tr>
<td>Perforated Hose</td>
<td>6” Lay Flat – Discharge w/Holes</td>
<td>Deluge Header</td>
<td>400'</td>
</tr>
<tr>
<td>Discharge Hose</td>
<td>6” Lay Flat</td>
<td>Header Supply</td>
<td>400'</td>
</tr>
<tr>
<td>Suction Hose</td>
<td>6” Suction</td>
<td>Pump Supply</td>
<td>2 x 20'</td>
</tr>
<tr>
<td>Kamlock Fittings, Pipe Fittings &amp; Basket Strainers</td>
<td>6” Assorted</td>
<td>Hose Connections</td>
<td></td>
</tr>
</tbody>
</table>

**Support Resources**

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>Crew &amp; Tech / Shift</td>
<td>Access / Deployment</td>
<td>6</td>
</tr>
<tr>
<td>ATV’s</td>
<td></td>
<td>Material Transport</td>
<td>2</td>
</tr>
<tr>
<td>Trucks with ATV Trailers</td>
<td></td>
<td>Mobilization Support</td>
<td>2</td>
</tr>
</tbody>
</table>

* Support Resources may need to be re-evaluated, and in most cases decreased, when deploying multiple units or tending systems after deployment.

** Personnel does not include Landing Craft crew.

## Deployment Considerations and Limitations

- Shoreline access may influence deployment platform options.
- Deluge pressure needs to be regulated to avoid beach erosion.
- Kamlock fittings should be secured with wire or wire ties after lockdown.
- The marine access unit does not specify an ATV. If available, an ATV could support hose & fittings transport from the vessel up the beach.
I. UNDERFLOW DAM, MARINE SPILL

Objective & Strategy

The objective of the underflow dam is to temporarily block the mouth of a stream, slough, or inlet to prevent oil from entering during a flood tide. The underflow is used to allow outflowing fresh water to escape the dam or incoming unpolluted ocean water to enter the estuary. This is accomplished by building a dam using local earth and gravel. If the local material is porous or insufficient, sandbags and polyethylene liners (Visqueen) should be used on the face of the dam to stop leakage.

Underflow dams use inclined culverts to allow water moving downstream to escape while keeping the spill contained on the marine side of the dam. The capacity of the culvert(s) should exceed the stream flow rate. A less preferred alternative is to use pumps to remove water from the inside of the dam. Underflow culverts should be placed through the dam at an incline, with the lower end of the pipe on the marine side of the dam.

The general strategy is to:

- Identify the trajectory of the spilled oil and only install a dam if the inlet is threatened.
- Evaluate access restrictions and select appropriate marine deployment platforms or on-land vehicles.
- Construct the dam with as little damage to the beach and storm-berm as possible.
- Mobilize and deploy personnel with tools and materials to selected shorelines.
- Remove the dam as soon as the site is no longer threatened by a spill.
Deployment Considerations and Limitations

- Army Corps of Engineer permit is necessary to utilize this strategy.
- If shoreside access is not available, equipment will have to be transported by landing craft.
- Dams must be checked periodically for leakage and integrity, to replace eroded materials, and to continually monitor the water/oil interface. Valved pipes, pumps, or number of siphons may require periodic adjustment to compensate for minor changes in stream flow.
- Damming of a stream mouth may block fish passage. The dam must be removed immediately when it is no longer needed.

Resources

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loader, Bulldozer, or Backhoe</td>
<td>Various</td>
<td>Dam Construction</td>
<td>1</td>
</tr>
<tr>
<td>Visqueen</td>
<td>6 mil.</td>
<td>Optional Dam Liner</td>
<td>1 roll</td>
</tr>
<tr>
<td>Culvert</td>
<td>Sized to exceed stream outflow</td>
<td>Dam</td>
<td>1</td>
</tr>
</tbody>
</table>

Support Resources*

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Function</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>Crew &amp; Tech/Shift</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

* Support Resources may need to be re-evaluated, and in most cases decreased, when deploying multiple units or tending systems after deployment.
PART THREE - SITE SPECIFIC GEOGRAPHIC RESPONSE STRATEGIES

A. SOUTHEAST ALASKA RESPONSE ZONE 1

Figure G-3-1 provides an overview of the Southeast Alaska response zone 1, identifying the location of each GRS site. Each GRS site has been assigned an identifying number, which has no relevance to the site's protection priority. This section contains geographic response strategies for each numbered site, in numerical order, beginning with SE01-01. Figure G-3-2 shows the location of oil spill response equipment throughout zone 1.
(This page intentionally blank)
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (marks)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE01-01-01</td>
<td>Bostwick Inlet Nearshore waters in the general area of: Lat. 55º12.9 N Lon. 131º42.4 W</td>
<td>Free-oil Recovery</td>
<td>Maximize free-oil recovery in the offshore &amp; nearshore environment in the entrance to Bostwick Inlet. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Vessel Platform</td>
<td>Via marine waters Chart 17434</td>
<td>Same as SE01-01-02</td>
<td>Vessel masters should have local knowledge.</td>
</tr>
<tr>
<td>SE01-01-02</td>
<td>Bostwick Inlet Southwest Boom Arrays a. Lat. 55º12.3 N Lon. 131º43.3 W b. Lat. 55º13.45 N Lon. 131º41.98 W</td>
<td>Deflection</td>
<td>Deflect oil away from the entrance to Bostwick Inlet and out the Free Oil strike teams for recovery.</td>
<td>Use vessels with deck space to transport equipment to the site (class 2/3/4). Deploy boom and set anchors with fishing vessels and skiffs (class 3/4/6). Place protected-water boom off the headlands to deflect oil to free-oil recovery. Tend throughout tide.</td>
<td>Vessel Platform</td>
<td>Via marine waters Chart 17434</td>
<td>Fish, salmon concentrations – 10 streams (pink, chum, coho), steelhead Birds-waterfowl concentrations Habitat-marsh, eel grass, sheltered tidal Flats Human use-High recreational use Invertebrates</td>
<td>Vessel masters should have local knowledge. FOSC Historic Properties Specialist should Monitor on-site operations. See Figure G-3-2 for equipment locations. Area is exposed to prevailing SE winds. Tested: not yet Surveyed: 5/05/03 TLR</td>
</tr>
<tr>
<td>SE01-01-03</td>
<td>Bostwick Inlet North Boom Arrays shoreside locations West Lat. 55º13.88 N Lon. 131º44.64 W East Lat. 55º14.07 N Lon. 131º43.79 W</td>
<td>Divert and Recover</td>
<td>Divert oil entering Bostwick Inlet along the north and south shore to marine recovery vessel anchored in the channel.</td>
<td>Place six cascaded boom arrays inside of Bostwick Inlet to divert oil to marine recovery vessel anchored in the channel.</td>
<td>Vessel Platform</td>
<td>Via marine waters Chart 17434</td>
<td>Same as SE01-01-02</td>
<td>Vessel masters should have local knowledge. Tested: not yet Surveyed: 5/05/03 TLR</td>
</tr>
<tr>
<td>SE01-01-04</td>
<td>Head of Bostwick Inlet Lat. 55º14.9 N Lon. 131º45.1 W</td>
<td>Exclusion</td>
<td>Exclude oil from the head of Bostwick Inlet.</td>
<td>Place 4000 ft. of protected water boom with tidal-seal on both ends, across head of Bostwick Inlet, outside the tidal flats.</td>
<td>Vessel Platform</td>
<td>Via marine waters Chart 17434</td>
<td>Same as SE01-01-02</td>
<td>Vessel masters should have local knowledge. Tested: not yet Surveyed: 5/05/03 TLR</td>
</tr>
<tr>
<td>SE01-01-05</td>
<td>Bostwick Inlet Cove Lat. 55º13.2 N Lon. 131º44.9 W</td>
<td>Passive Recovery</td>
<td>Minimize impact through passive recovery.</td>
<td>Place 3000 ft. of snare line or sorbent boom, across tide flats in cove on west side of Bostwick Inlet. Use snare line for persistent oil or sorbent boom for diesel.</td>
<td>Vessel Platform</td>
<td>Via marine waters Chart 17434</td>
<td>Same as SE01-01-02</td>
<td>Vessel masters should have local knowledge. Surveyed: 5/05/03 TLR</td>
</tr>
</tbody>
</table>
Foggy Bay, SE 01-02

Center of map at 54° 57.0' N Lat., 130° 57.8' W Lon.

Legend

- Free-oil Containment and Recovery, Shallow Water
- Exclusion Booming
- Protected-water Boom
- Tidal-seal Boom

June 26, 2003

This is not intended for navigational use.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE01-02-01</td>
<td>Foggy Bay  &lt;br&gt;Nearshore waters in the general area of:  &lt;br&gt;a. Lat. 54º57.5 N  &lt;br&gt;Lon. 130º57.9 W  &lt;br&gt;b. Lat. 54º 56.9 N  &lt;br&gt;Lon. 130º 57.2 W  &lt;br&gt;c. Lat. 54º 56.1 N  &lt;br&gt;Lon. 130º 57.3 W</td>
<td>Nearshore Free-oil Recovery  &lt;br&gt;Maximize free-oil recovery inside of Foggy Bay.</td>
<td>Deploy free-oil recovery strike teams upwind and up current of oil coming into Foggy Bay. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as needed to maximize interception of oil before it impacts sensitive areas.</td>
<td>Ketchikan/marine vessel</td>
<td>Via marine waters</td>
<td>Same as SE01-02-02</td>
<td>Vessel masters should have local knowledge.</td>
</tr>
<tr>
<td>SE01-02-02</td>
<td>Entrance to Very Inlet  &lt;br&gt;a. Lat. 54º 57.5 N  &lt;br&gt;Lon. 130º 57.8 W  &lt;br&gt;b. Lat. 54º 57.6 N  &lt;br&gt;Lon. 130º 57.3 W  &lt;br&gt;c. Lat. 54º 57.4 N  &lt;br&gt;Lon. 130º 57.2 W  &lt;br&gt;d. Lat. 54º 56.9 N  &lt;br&gt;Lon. 130º 56.9 W</td>
<td>Exclusion  &lt;br&gt;Exclude oil from entering Very Inlet and intertidal area south of Very Inlet.</td>
<td>Use class 2 and class 3/4 vessels with deck space to transport equipment; class 6 setnet or seine skiffs to deploy boom and set anchors. Place boom at the entrance to Very Inlet and across the entrances to the small cove behind the island to the southeast of the inlet.</td>
<td>Deployment  &lt;br&gt;Equipment: 2100 ft. protected-water boom  &lt;br&gt;20 ea. anchor systems (~40 lbs.)  &lt;br&gt;16 ea. anchor stakes  &lt;br&gt;Vessels: 1 ea. class 2  &lt;br&gt;2 ea. class 3/4  &lt;br&gt;2 ea. class 6  &lt;br&gt;Personnel / shift: 15 ea. vessel crew  &lt;br&gt;Tending: 1 ea. class 3/4  &lt;br&gt;2 ea. class 6  &lt;br&gt;Personnel / shift: 5 ea. vessel crews</td>
<td>Ketchikan/marine vessel</td>
<td>Via marine waters</td>
<td>Same as SE01-02-02</td>
<td>Marine mammals- Steller sea lion haulouts and rookeries (500 yd. exclusion zone), harbor seal haulouts and rookeries. Fish-harvesting spawning, intertidal salmon spawning (pink, chum, coho, steelhead). Birds-waterfowl concentrations &gt;150 (winter). Human use-commercial herring fishery.</td>
</tr>
</tbody>
</table>
FOSC Historic Properties Specialist should MONITOR on-site operations. See Figure G-3-2 for equipment locations. Tested: not yet <br>Surveyed: 4/15/03 ADEC, SEAPRO |
| SE01-02-03 | South Foggy Bay  <br>a. Lat. 54º 56.0 N  <br>Lon. 130º 57.5 W  <br>b. Lat. 54º 56.0 N  <br>Lon. 130º 56.9 W | Exclusion  <br>Exclude oil from entering small coves at south end of Foggy Bay. | Place 1500 ft. of protected-water boom in a chevron pattern, with a anchor stake on the island in the middle of the cove at the apex, across eastern cove, and 600 ft. across western cove. | Deployment  <br>Equipment: 2100 ft. protected-water boom  <br>10 ea. anchor stakes  <br>Vessels: 12 ea. anchor systems (~40 lbs.)  <br>Personnel /Tending: Same as SE01-02-02 | Ketchikan/marine vessel | Via marine waters | Same as SE01-02-02 | Tested: not yet <br>Surveyed: 4/15/03 ADEC, SEAPRO |
| SE01-02-04 | Small Island North of Very Inlet  <br>Lat. 54º 58.1 N  <br>Lon. 130º58.4 W | Exclusion  <br>Exclude oil from small island north of Very Inlet | Place 1000 ft. of protected-water boom in a chevron pattern, with a 60+ anchor at the apex and tidal seal on both ends around small island and extending to headlands. | Deployment  <br>Equipment: 1000 ft. protected-water boom  <br>12 ea. anchor systems (~40 lbs.)  <br>1 ea. anchor system (~60 lbs.)  <br>100 ft. tidal-seal boom  <br>4 ea. anchor stakes  | Ketchikan/marine vessel | Via marine waters | Same as SE01-02-02 | Tested: not yet <br>Surveyed: 4/15/03 ADEC, SEAPRO |
Rudyerd Bay, SE 01-03

Center of map at 55°33.3’ N Lat., 130°49.2’ W Lon.

Soundings in fathoms

Legend

- Free-oil Containment and Recovery, Shallow Water
- Exclusion Booming
- Protected-water Boom
- Tidal-seal Boom

Map

- SE01-03-02d Southeast arm Rudyerd Bay looking towards the south.
- SE01-03-01b Rudyerd Bay at Punchbowl Cove looking towards the east.
- SE01-03-02a Punchbowl Cove looking towards the south. Note spill response boom being deployed.

Geographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE01-03-01</td>
<td><strong>Rudyerd Bay</strong>&lt;br&gt;Nearshore waters in the general area of:&lt;br&gt;a. Lat. 55º 32.98 N&lt;br&gt;Lon. 130º52.56 W&lt;br&gt;b. Lat. 55º 33.78 N&lt;br&gt;Lon. 130º 48.41 W&lt;br&gt;c. Lat. 55º 35.60 N&lt;br&gt;Lon. 130º 43.90 W</td>
<td>Free-oil Recovery-Shallow Water</td>
<td>Deploy free-oil recovery strike teams in Rudyerd Bay and at the head of Punchbowl Cove.&lt;br&gt;Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Vessel platform</td>
<td>Via marine waters Chart 17424</td>
<td>Marine mammals: Steller sea lion haulout and rookery (500 yd. exclusion zone), harbor seal haulouts and rookeries.&lt;br&gt;Fish: Intertidal salmon spawning (pink, king, coho, chinook)&lt;br&gt;Birds: Waterfowl concentrations ~300 (winter)</td>
<td>Vessel masters should have local knowledge.</td>
</tr>
<tr>
<td>SE01-03-02</td>
<td><strong>Rudyerd Bay</strong>&lt;br&gt;Punchbowl Lake Stream&lt;br&gt;a. Lat. 55º 31.50 N&lt;br&gt;Lon. 130º46.57 W&lt;br&gt;b. Lat. 55º 36.77 N&lt;br&gt;Lon. 130º 42.63 W&lt;br&gt;c. Lat. 55º 36.46 N&lt;br&gt;Lon. 130º 41.39 W&lt;br&gt;d. Lat. 55º 33.48 N&lt;br&gt;Lon. 130º 40.62 W&lt;br&gt;e. Lat. 55º 38.24 N&lt;br&gt;Lon. 130º 38.93 W&lt;br&gt;f. Lat. 55º 39.12 N&lt;br&gt;Lon. 130º 39.12 W</td>
<td>Exclusion</td>
<td>Exclude oil entering the identified intertidal areas and streams in Rudyerd Bay and Punchbowl Cove.</td>
<td>Use vessels with deck space (class 2/3/4) to transport equipment.&lt;br&gt;Use skiffs (class 6) to deploy boom and set anchors.&lt;br&gt;Place 2200 ft. of protected-water boom to deflect oil entering Rudyerd Bay to FO-S strike team. Monitor throughout tide.&lt;br&gt;<strong>Deployment Equipment</strong>&lt;br&gt;8000 ft. protected-water boom&lt;br&gt;40 ea. anchor systems (~40 lbs.)&lt;br&gt;2 ea. 50 ft. section tidal seal boom&lt;br&gt;24 anchor stakes&lt;br&gt;Vessels&lt;br&gt;2 ea. class 2&lt;br&gt;2 ea. class 3/4&lt;br&gt;2 ea. class 6&lt;br&gt;Personnel/Shift&lt;br&gt;18 ea. vessel crew&lt;br&gt;Tending&lt;br&gt;Vessels&lt;br&gt;2 ea. class 3/4&lt;br&gt;2 ea. class 6&lt;br&gt;Personnel/Shift&lt;br&gt;10 ea. vessel crew</td>
<td>Vessel platform</td>
<td>Via marine waters Chart 17424</td>
<td>Same as SE01-03-01</td>
<td>Vessel masters should have local knowledge. &lt;br&gt;FOSC Historic Properties Specialist should MONITOR on-site operations.&lt;br&gt;See Figure G-3-2 for equipment locations.&lt;br&gt;Tested: 02a tested 8/29/02 SEA PRO, 02b-f not yet tested.&lt;br&gt;Surveyed: 8/29/02 SEA PRO</td>
</tr>
</tbody>
</table>
Chickamin River Estuary, SE 01-04

Legend

- FO-S: Free-oil Containment and Recovery, Shallow Water
- DV: Diversion Booming
- DF: Deflection Booming, Fixed
- PR: Passive Recovery and Debris Removal
- ———: Protected-water Boom
- | | | | |: Snare Line
- 🐠: Marine Recovery

SE 01-04 Chickamin River Estuary looking towards the northeast.

This is not intended for navigational use.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (month)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE01-04-01</td>
<td>Chickamin River Estuary Nearshore waters in the general area of: Lat. 55º 47.5 N Lon. 130º 58.9 W</td>
<td>Free-oil Recovery- Shallow Water</td>
<td>Deploy free-oil recovery strike teams upwind and up current of Chickamin River Estuary.</td>
<td>Multiple free-oil recovery strike teams as required to minimize interception of oil before it impacts sensitive areas.</td>
<td>Ketchikan Harbor</td>
<td>Via marine waters</td>
<td>Chart 17424</td>
<td>Vessel master should have local knowledge.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Use aerial surveillance to locate incoming slicks.</td>
<td></td>
<td></td>
<td>Same as SE01-04-02</td>
<td>Vessel platform</td>
<td>Fish-intertidal salmon spawning (chum, pink, coho, king, steelhead)鸟水生和滨鸟迁徙，换羽和集中&gt;500 (winter) Habitat-marsh, sheltered tidal flat</td>
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<td></td>
<td>Deploy free-oil recovery strike teams upwind and up current of Chickamin River Estuary.</td>
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<td></td>
<td>Vessel master should have local knowledge.</td>
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<td></td>
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<td></td>
<td>Use aerial surveillance to locate incoming slicks.</td>
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<td>FOSC Historic Properties Specialist should MONITOR on-site operations.</td>
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<td></td>
<td>Deploy free-oil recovery strike teams upwind and up current of Chickamin River Estuary.</td>
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<td>See Figure G-3-2 for equipment locations.</td>
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<td></td>
<td></td>
<td></td>
<td>Use aerial surveillance to locate incoming slicks.</td>
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<td>Tested: not yet</td>
</tr>
<tr>
<td>SE01-04-02</td>
<td>Chickamin River Estuary Boom Arrays: a. Lat. 55º 47.8 N Lon. 130º 59.4 W b. Lat. 55º 47.0 N Lon. 130º 58.3 W</td>
<td>Deflection-Fixed</td>
<td>Place cascaded boom arrays on the down stream side of the entrance to Chickamin River Estuary with fishing vessels and skiffs (class 3/4/6) at appropriate angles to deflect free-oil strike teams.</td>
<td>Vessel master should have local knowledge.</td>
<td>Vessel platform</td>
<td>Via marine waters</td>
<td>Chart 17424</td>
<td>Vessel master should have local knowledge.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Move to the other location at the change of the tide.</td>
<td></td>
<td></td>
<td>Same as SE01-04-02</td>
<td>Vessel platform</td>
<td>Fish-intertidal salmon spawning (chum, pink, coho, king, steelhead)鸟水生和滨鸟迁徙，换羽和集中&gt;500 (winter) Habitat-marsh, sheltered tidal flat</td>
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<td>Move to the other location at the change of the tide.</td>
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<td></td>
<td>Vessel master should have local knowledge.</td>
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<td>Move to the other location at the change of the tide.</td>
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<td>FOSC Historic Properties Specialist should MONITOR on-site operations.</td>
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<td>Move to the other location at the change of the tide.</td>
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<td>See Figure G-3-2 for equipment locations.</td>
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<td></td>
<td>Move to the other location at the change of the tide.</td>
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<td></td>
<td>Tested: not yet</td>
</tr>
<tr>
<td>SE01-04-03</td>
<td>Chickamin River Estuary Anchor Locations: a. Lat. 55º 47.9 N Lon. 130º 58.5 W b. Lat. 55º 47.7 N Lon. 130º 58.4 W c. Lat. 55º 47.5 N Lon. 130º 58.1 W</td>
<td>Divert and Recover</td>
<td>Divert oil entering Chickamin River Estuary to marine recovery.</td>
<td>Vessel master should have local knowledge.</td>
<td>Vessel platform</td>
<td>Via marine waters</td>
<td>Chart 17424</td>
<td>Vessel master should have local knowledge.</td>
</tr>
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<td>Move to the other location at the change of the tide.</td>
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<td>Same as SE01-04-02</td>
<td>Vessel platform</td>
<td>Fish-intertidal salmon spawning (chum, pink, coho, king, steelhead)鸟水生和滨鸟迁徙，换羽和集中&gt;500 (winter) Habitat-marsh, sheltered tidal flat</td>
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<td>Move to the other location at the change of the tide.</td>
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<td></td>
<td>Vessel master should have local knowledge.</td>
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<td>Move to the other location at the change of the tide.</td>
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<td>FOSC Historic Properties Specialist should MONITOR on-site operations.</td>
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<td>Move to the other location at the change of the tide.</td>
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<td>See Figure G-3-2 for equipment locations.</td>
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<td></td>
<td>Move to the other location at the change of the tide.</td>
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<td></td>
<td>Tested: not yet</td>
</tr>
<tr>
<td>SE01-04-04</td>
<td>Chickamin River Mudflats Lat. 55º 49.1 N Lon. 130º 59.9 W</td>
<td>Passive Recovery</td>
<td>Place and anchor 4300 ft. of snare line or sorbent boom across mudflats at the head of Chickamin River Estuary.</td>
<td>Vessel master should have local knowledge.</td>
<td>Vessel platform</td>
<td>Via marine waters</td>
<td>Chart 17424</td>
<td>Vessel master should have local knowledge.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Minimize impact to designated area through passive recovery using snare line or sorbent boom.</td>
<td></td>
<td></td>
<td>Same as SE01-04-02</td>
<td>Vessel platform</td>
<td>Fish-intertidal salmon spawning (chum, pink, coho, king, steelhead)鸟水生和滨鸟迁徙，换羽和集中&gt;500 (winter) Habitat-marsh, sheltered tidal flat</td>
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<td>Minimize impact to designated area through passive recovery using snare line or sorbent boom.</td>
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<td>Vessel master should have local knowledge.</td>
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<td>Minimize impact to designated area through passive recovery using snare line or sorbent boom.</td>
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<td>FOSC Historic Properties Specialist should MONITOR on-site operations.</td>
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<td>Minimize impact to designated area through passive recovery using snare line or sorbent boom.</td>
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<td>See Figure G-3-2 for equipment locations.</td>
</tr>
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<td>Minimize impact to designated area through passive recovery using snare line or sorbent boom.</td>
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<td>Tested: not yet</td>
</tr>
<tr>
<td>ID</td>
<td>Location and Description</td>
<td>Response Strategy</td>
<td>Implementation</td>
<td>Response Resources</td>
<td>Staging Area</td>
<td>Site Access</td>
<td>Response Protected (months)</td>
<td>Special Considerations</td>
</tr>
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</tr>
</tbody>
</table>
| SE01-05-01 | Thorne Bay | Nearshore waters in the general area of:  
- Lat. 55º 40.0 N  
- Lon. 132º 33.2 W  
- Lat. 55º 40.0 N  
- Lon. 132º 33.2 W  
- Lat. 55º 40.0 N  
- Lon. 132º 33.2 W  
- Lat. 55º 40.0 N  
- Lon. 132º 33.2 W  
- Lat. 55º 40.0 N  
- Lon. 132º 33.2 W  
- Lat. 55º 40.0 N  
- Lon. 132º 33.2 W  
- Lat. 55º 40.0 N  
- Lon. 132º 33.2 W  | Freeway Recovery Shallow Water | Maximize free-oil recovery in the nearshore & nearshore environment near the mouth of Thorne Bay. | Use aerial surveillance to locate incoming slicks. | Multiple free-oil recovery strike teams to maximize interception of oil before it impacts sensitive areas. | Thorne Bay or Ketchikan | Via marine waters | Chart 17423B | Same as SE01-05-02 | Vessel master should have local knowledge. |
| SE01-05-02 | Thorne Bay | Lat. 55º 40.0 N  
- Lon. 132º 33.2 W  
- Lat. 55º 40.0 N  
- Lon. 132º 33.2 W  
- Lat. 55º 40.0 N  
- Lon. 132º 33.2 W  | Deflection Fixed | Deflact oil from the seal haul out in the southern entrance to the Thorne Bay. | Transport equipment to site by marine vessel (class 2/3/4). | Place boom and anchors with fishing vessels and skiffs (class 3/4/6). | Position boom in a chevron pattern at an appropriate angle to deflect oil. From the seal haul out. | Deployment  
- Equipment 1000 ft. protected-water boom 12 ea. anchor systems (~40 lbs.) 1 ea. apex anchor system (~60 lbs.) | Tending  
- Vessels 1 ea. class 2  
- ea. class 3/4  
- ea. class 5  
- Personnel/Shift 15 ea. vessel crew | Thorne Bay or seal platform | Via marine waters | Chart 17423B | Fish-intertidal salmon/nutrient swamping (concentrations > 10,000 ppm, chum, coho, sockeye, steelhead, Dolly Varden, cutthroat) | Marine mammals - harbor seals |
| SE01-05-03 | Thorne Bay | Lat. 55º 40.0 N  
- Lon. 132º 27.6 W  
- Lat. 55º 40.0 N  
- Lon. 132º 27.6 W  
- Lat. 55º 40.0 N  
- Lon. 132º 27.6 W  
- Lat. 55º 40.0 N  
- Lon. 132º 27.6 W  | Divert Recover | Divert oil entering Thorne Bay to shore-side recovery. | Transport equipment by vessel to the site (class 2/3/4). | Deploy anchors and boom with skiffs and fishing vessels (class 3/4/6). | Place boom (a) between Thorne Head and the island. Place (b) between the larger island and the mainland using the bight as a recovery area. Place (c) in the southern entrance in a chevron pattern with passive recovery established on the southern intertidal area. | Deployment  
- Equipment 5600 ft. protected-water boom 300 ft. sand or sorbent boom 56 ea. anchor stakes 16 ea. anchor stakes 1 ea. anchor recovery unit 1 ea. marine recovery unit | Tending  
- Vessels 1 ea. class 3/4  
- ea. class 5  
- Personnel/Shift 7 ea. vessel crew | Thorne Bay or seal platform | Via marine waters | Chart 17423B | Same as SE01-05-02 | Vessel master should have local knowledge. |
| SE01-05-04 | Thorne Bay | Lat. 55º 40.0 N  
- Lon. 132º 27.6 W  
- Lat. 55º 40.0 N  
- Lon. 132º 27.6 W  
- Lat. 55º 40.0 N  
- Lon. 132º 27.6 W  | Exclusion | Exclude oil from entering the indicated coves in Thorne Bay. | Place boom (a) across the 2 entrances to the cove on the island at the entrance of Thorne Bay. Place (b) across the mouth of the southern arm of Thorne Bay. | Deploy anchors and boom with skiffs and fishing vessels (class 3/4/6). | Deploy anchors and boom with skiffs and fishing vessels (class 3/4/6). | Deployment  
- Equipment 2000 ft. calm-water boom 12 ea. anchor systems (~40 lbs.) 12 ea. anchor stakes | Tending  
- Vessels 1 ea. class 3/4  
- Personnel/Shift | Thorne Bay or seal platform | Via marine waters | Same as SE01-05-02 | Vessel master should have local knowledge. | The head of Thorne Bay was a log transfer site. Bottom is covered with bark and debris. FOS: Historic Properties Specialist should monitor on site-operations. See Figure G-3-2 for equipment locations. | Tested: not yet | Surveyed: 5/5/03 TLR |
| SE01-05-05 | Thorne Bay | Lat. 55º 40.0 N  
- Lon. 132º 33.2 W  
- Lat. 55º 40.0 N  
- Lon. 132º 33.2 W  
- Lat. 55º 40.0 N  
- Lon. 132º 33.2 W  | Passive Recovery | Minimize impact to designated areas through passive recovery using sandline or sorbent boom. | Place 5000 ft. of sandline or sorbent boom across the small coves in Thorne Bay, inside the tidal flats. | Deploy anchors and boom with skiffs and fishing vessels (class 3/4/6). | Place 5000 ft. of sandline or sorbent boom across the small coves in Thorne Bay, inside the tidal flats. | Deployment  
- Equipment 5000 ft. sandline or sorbent boom 54 ea. anchor stakes | Tending  
- Vessels 1 ea. class 2  
- Personnel/Shift | Thorne Bay or seal platform | Via marine waters | Chart 17423B | Same as SE01-05-02 | Use sandline for persistent oils and sorbent boom for non-persistent oils. | Surveyed: 5/5/03 TLR |
Dog Island, SE 01-06

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Deflection Booming, Fixed
Diversion Booming
Protected-water Boom
Marine Recovery

Legend

Map

Photo

Geographic Response Strategies for Southeast Alaska Subarea

Southeast Alaska Subarea

This is not intended for navigational use.

Soundings in fathoms

Center of map at 54° 59' N Lat., 131° 19' W Lon.

SE01-06 Looking southwest over Cat and Dog Islands.

SE01-06-04a Looking east over Cat Island.

SE01-06-04b Looking south over Double Island.

SE01-06-03b Looking south at Pond Bay.

June 26, 2003

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Deflection Booming, Fixed
Diversion Booming
Protected-water Boom
Marine Recovery
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (marsh)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE01-06-01</td>
<td>Dog Island</td>
<td>Free-oil Recovery</td>
<td>Deploy free-oil recovery strike teams.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts herring fishery and other sensitive habitats around Dog and Cat Island.</td>
<td>Ketchikan; Marine vessel</td>
<td>Via marine waters</td>
<td>Fish-herring, Marine mammals-Steller sea lions, harbor seals, Habitat-tidal mudflats</td>
<td>Site survey desired to: 1. Check direction and velocity of current.</td>
</tr>
<tr>
<td>SE01-06-02</td>
<td>Dog Island</td>
<td>Exclusion</td>
<td>Protect waters around Dog Island by preventing oil in Revillagigedo Channel from entering Cat Passage.</td>
<td>Use class 2 and class 3 or 4 vessels with 1250 ft per side to transport equipment. Place protected-water boom, with tidal-seal on each end using class 6 skiffs. Deploy free oil strike teams [FO-S 01] at Cat Passage.</td>
<td>Same as SE01-06-01</td>
<td>Same as SE01-06-01</td>
<td>Same as SE01-06-02</td>
<td>Site survey desired to: 2. Check chevron and shore side anchor points.</td>
</tr>
<tr>
<td>SE01-06-03</td>
<td>Dog Island</td>
<td>Deflection</td>
<td>Protect waters around Dog Island by deflecting oil in Felice Strait and Cat Passage away from Island.</td>
<td>Use class 2 and class 3 or 4 vessels with 1000 ft to transport equipment. Place protected-water boom using class 6 skiffs. Boom Arrays: a. 3000 ft, 1000 ft cascade at Chevron, 1250 ft per side b. Island west side of Dog Bay.</td>
<td>Same as SE01-06-01</td>
<td>Same as SE01-06-02</td>
<td>Same as SE01-06-02</td>
<td>Site survey desired to: 3. Check anchor points.</td>
</tr>
<tr>
<td>SE01-06-04</td>
<td>Dog Island</td>
<td>Diversion</td>
<td>Protect waters around Dog Island by diverting oil in Felice Strait and Cat Passage to marine recovery units. Diversion locations: a. West side of Cat Island b. Double Island c. Dog Is. NE cove d. Dog Is. NW side.</td>
<td>Use class 2 and class 3 or 4 vessels with 1000 ft to transport equipment. Place protected-water boom using class 6 skiffs. Deploy marine recovery units west of Cat Island, Double Island, Dog Island, in Dog Bay to recover deflected oil. Boom Arrays: a. 3000 ft, 1000 ft cascade, b. 8000 ft, anchor every 500 ft, c. 1000 ft, anchor every 500 ft, d. 3000 ft, 1000 ft cascade.</td>
<td>Same as SE01-06-02</td>
<td>Same as SE01-06-02</td>
<td>Same as SE01-06-02</td>
<td>Site survey desired to: 4. Check direction and velocity of current.</td>
</tr>
</tbody>
</table>

**Note:** Strategies are listed in priority of deployment.
Grindall Island, SE 01-07

Legend

Free-oil Containment and Recovery, Shallow Water
Deflection Booming, Live
Passive Recovery, Marine Mammal Haulout
Protected-water Boom
Seal Haulout
500 yd Exclusion Zone

SE01-07 Grindall Island looking northwest.

June 26, 2003
Free-oil Containment and Recovery, Shallow Water
Deflection Booming, Live
Passive Recovery, Marine Mammal Haulout
Protected-water Boom
Seal Haulout
500 yd Exclusion Zone

This is not intended for navigational use.

Grindall Island, SE 01-07

Soundings in fathoms

Center of map at 55° 26' N Lat., 132° 07' W Lon.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE01-07-01</td>
<td>Grindall Island</td>
<td>Free-oil Recovery</td>
<td>Deploy free-oil recovery strike teams. Ensure operations are not so close to</td>
<td>Multiple free-oil</td>
<td>Ketchikan, Marine</td>
<td>Via marine waters</td>
<td>Marine mammals-seal</td>
<td>Exposed conditions, shoal</td>
</tr>
<tr>
<td></td>
<td>Lat. 55º 26 N</td>
<td></td>
<td>marine mammal haulouts that animals leave the island and enter the water.</td>
<td>recovery strike</td>
<td>vessel</td>
<td></td>
<td>haulout, sea lion</td>
<td>water/rocks and marine</td>
</tr>
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<td></td>
<td>Lon. 132º 07 W</td>
<td></td>
<td></td>
<td>teams as required</td>
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<td>haulout, (500 yd.</td>
<td>mammal haulout exclude any</td>
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<td>to maximize</td>
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<td>exclusion zone)</td>
<td>direct approach, landing</td>
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<td>interception of</td>
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<td>Birds- sea bird</td>
<td>or attachment of equipment</td>
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<td>oil before it</td>
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<td>concentration area</td>
<td>to the island</td>
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<td>impacts South</td>
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<td>Marble Island.</td>
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<tr>
<td>SE01-07-02</td>
<td>Grindall Island</td>
<td>Deflection-live</td>
<td>Tow and position 4 x 600 ft of boom using class 3/4 vessels (2 vessels per</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
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<td>Lat. 55º 26 N</td>
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<td>600 ft boom string, 8 vessels total). Use aerial surveillance to position</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
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<td>Lon. 132º 07 W</td>
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<td>boom in a chevron pattern. Deflect oil away from seals and into open water</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
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<td>of Clarence Strait for collection.</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
</tr>
<tr>
<td>SE01-07-03</td>
<td>Grindall Island</td>
<td>Passive Recovery-Marine</td>
<td>Transport equipment by vessel (Class 3/4) from Seward. Broadcast sorbent</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Consult with the National</td>
</tr>
<tr>
<td></td>
<td>Lat. 55º 26 N</td>
<td>Marine Mammal Haulout</td>
<td>material on haulout immediately prior to or after oil spill impact. Monitor</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Marine Fisheries Service</td>
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<td>Lon. 132º 07 W</td>
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<td>after each high tide and replace as necessary. Minimize disturbance of marine</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>prior to implementing this</td>
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<td></td>
<td></td>
<td></td>
<td>mammals.</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>tactic.</td>
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<td>Actual location of this</td>
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<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Exposed to prevailing SE</td>
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<td></td>
<td>protection strategy will</td>
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<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>winds.</td>
</tr>
<tr>
<td></td>
<td>depend on field assessment</td>
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<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Tested: not yet</td>
</tr>
<tr>
<td></td>
<td>at the time of deployment.</td>
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<td></td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Same as SE01-07-01</td>
<td>Surveyed: 5/05/03 TLR</td>
</tr>
</tbody>
</table>
Soundings in fathoms

Center of map at 55° 34' N Lat., 132° 33' W Lon.

SE01-08-01e,f Karta Bay looking northeast.

SE01-08-01a,b,c,d,e Karta Bay looking towards the northwest.

SE01-08-01a Karta River looking south.

Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Protected-water Boom
Calm-water Boom
Tidal-seal Boom
Shoreside Recovery
Mooring Buoy
Bears in Area, Guards Needed
Public Service Cabin

FO-S EX

Scale

1 nm
1 mi.
1,000 yds.

FO-S

02

01a

01b

01c

01d

01e

01f

KARTA BAY

Brow n B ay

Kart a River

Sandy Point

Mound Point

Gosti Island

This is not intended for navigational use.

Karta Bay, SE 01-08

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Protected-water Boom
Calm-water Boom
Tidal-seal Boom
Shoreside Recovery
Mooring Buoy
Bears in Area, Guards Needed
Public Service Cabin

June 26, 2003

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Protected-water Boom
Calm-water Boom
Tidal-seal Boom
Shoreside Recovery
Mooring Buoy
Bears in Area, Guards Needed
Public Service Cabin

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Protected-water Boom
Calm-water Boom
Tidal-seal Boom
Shoreside Recovery
Mooring Buoy
Bears in Area, Guards Needed
Public Service Cabin

June 26, 2003

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Protected-water Boom
Calm-water Boom
Tidal-seal Boom
Shoreside Recovery
Mooring Buoy
Bears in Area, Guards Needed
Public Service Cabin

June 26, 2003

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Protected-water Boom
Calm-water Boom
Tidal-seal Boom
Shoreside Recovery
Mooring Buoy
Bears in Area, Guards Needed
Public Service Cabin

June 26, 2003
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (maritime)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE01-08-01</td>
<td>Karta Bay</td>
<td>a. Lat. 55º 33 N, Lon. 132º 34.5 W</td>
<td>Exclusion</td>
<td>a. Protect Karta River mouth, mudflats and marsh using exclusion boom anchored to achieve a convex shape.</td>
<td>Deployment: Equipment 1000 ft. protected-water boom 24 ea. ~40 lbs anchor systems 12 anchor stakes 1 ea. class 6</td>
<td>Ketchikan; Kasaan, marine vessel</td>
<td>Via marine waters</td>
<td>Bears in area. Area logging facilities may be able to provide staging areas and other resources. FOSC Historic Properties Specialist should monitor on-site operations. See Figure G-3-2 for equipment locations. Forest Service cabin near the mouth of the Karta River may be used. Exposed to prevailing SE winds. Tested: not yet Surveyed: 5/5/03 TLR</td>
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<td>b. Lat. 55º 34.7 N, Lon. 132º 33.3 W</td>
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<td>c. Lat. 55º 34.8 N, Lon. 132º 34.2 W</td>
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<td>d. Lat. 55º 34.8 N, Lon. 132º 33.7 W</td>
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<td>e. Lat. 55º 34.9 N, Lon. 132º 33.0 W</td>
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<td>f. Lat. 55º 34.9 N, Lon. 132º 32.8 W</td>
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<td>Boom Array</td>
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<td></td>
<td>a. Protect intertidal flats and marsh north side of Karta Bay. Recover oil using free oil strike teams.</td>
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<td></td>
<td>Use class 2 and class 3 or 4 vessels with deck space to transport equipment. Place protected-water boom, with tidal-seal on each end using class 6 skiffs.</td>
<td></td>
<td>Deployment: Equipment 4000 ft. protected-water boom 1000 ft. protected-water boom 24 ea. ~40 lbs anchor systems 12 anchor stakes 1 ea. class 2 2 ea. class 3/4 2 ea. class 6</td>
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<tr>
<td>SE01-08-02</td>
<td>Karta Bay</td>
<td>Lat. 55º 33 N, Lon. 132º 34.5 W</td>
<td>Free-oil Recovery</td>
<td>Maximize free-oil recovery in the waters of Karta Bay and Kasaan Bay.</td>
<td>Deploy multiple free-oil recovery strike teams.</td>
<td>Ketchikan; Kasaan, marine vessel</td>
<td>Via marine waters</td>
<td>Same as SE01-08-01.</td>
</tr>
</tbody>
</table>
Lincoln Channel, SE 01-09

Map & Photo

Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Calm-water Boom
Gate
Shoreside Recovery, Marine Access
Snare Line
Floating docks

Lincoln Channel, SE 01-09-03 Looking towards the northwest.

Lincoln Channel, SE 01-09-03a Looking towards Kanagunut Island.

Lincoln Channel, SE 01-09-03c Looking northeast towards Sitklan Island.

Lincoln Channel, SE 01-09-02b & 03a Looking towards the northeast.

Lincoln Channel, SE 01-09-03b Looking southwest towards Kanagunut Island.

Lincoln Channel, SE 01-09-03c Looking northeast towards Sitklan Island.

Garnet Pt.

LINGBERG IS.

Sitklan Island

Kanagunut Island

This is not intended for navigational use.

Soundings in fathoms

Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Calm-water Boom
Gate
Shoreside Recovery, Marine Access
Snare Line
Floating docks

Scale

1 nm
1 mi.
1,000 yds.

Lincoln Channel, SE 01-09

Center of map at 54°43' N Lat., 130°40' W Lon.

June 26, 2003

Geographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.

Soundings in fathoms

Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Calm-water Boom
Gate
Shoreside Recovery, Marine Access
Snare Line
Floating docks

Scale

1 nm
1 mi.
1,000 yds.

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Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Calm-water Boom
Gate
Shoreside Recovery, Marine Access
Snare Line
Floating docks

Scale

1 nm
1 mi.
1,000 yds.

Lincoln Channel, SE 01-09

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Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Calm-water Boom
Gate
Shoreside Recovery, Marine Access
Snare Line
Floating docks

Scale

1 nm
1 mi.
1,000 yds.

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Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Calm-water Boom
Gate
Shoreside Recovery, Marine Access
Snare Line
Floating docks

Scale

1 nm
1 mi.
1,000 yds.

Lincoln Channel, SE 01-09

Center of map at 54°43' N Lat., 130°40' W Lon.

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Geographic Response Strategies for Southeast Alaska Subarea

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Soundings in fathoms

Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Calm-water Boom
Gate
Shoreside Recovery, Marine Access
Snare Line
Floating docks

Scale

1 nm
1 mi.
1,000 yds.

Lincoln Channel, SE 01-09

Center of map at 54°43' N Lat., 130°40' W Lon.

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Geographic Response Strategies for Southeast Alaska Subarea

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Soundings in fathoms

Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Calm-water Boom
Gate
Shoreside Recovery, Marine Access
Snare Line
Floating docks

Scale

1 nm
1 mi.
1,000 yds.

Lincoln Channel, SE 01-09

Center of map at 54°43' N Lat., 130°40' W Lon.

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Geographic Response Strategies for Southeast Alaska Subarea

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Soundings in fathoms

Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Calm-water Boom
Gate
Shoreside Recovery, Marine Access
Snare Line
Floating docks

Scale

1 nm
1 mi.
1,000 yds.

Lincoln Channel, SE 01-09

Center of map at 54°43' N Lat., 130°40' W Lon.

June 26, 2003

Geographic Response Strategies for Southeast Alaska Subarea

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Soundings in fathoms

Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Calm-water Boom
Gate
Shoreside Recovery, Marine Access
Snare Line
Floating docks

Scale

1 nm
1 mi.
1,000 yds.

Lincoln Channel, SE 01-09

Center of map at 54°43' N Lat., 130°40' W Lon.

June 26, 2003

Geographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.

Soundings in fathoms

Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Calm-water Boom
Gate
Shoreside Recovery, Marine Access
Snare Line
Floating docks

Scale

1 nm
1 mi.
1,000 yds.

Lincoln Channel, SE 01-09

Center of map at 54°43' N Lat., 130°40' W Lon.

June 26, 2003

Geographic Response Strategies for Southeast Alaska Subarea

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Soundings in fathoms

Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Calm-water Boom
Gate
Shoreside Recovery, Marine Access
Snare Line
Floating docks

Scale

1 nm
1 mi.
1,000 yds.

Lincoln Channel, SE 01-09

Center of map at 54°43' N Lat., 130°40' W Lon.

June 26, 2003

Geographic Response Strategies for Southeast Alaska Subarea

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Soundings in fathoms

Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Calm-water Boom
Gate
Shoreside Recovery, Marine Access
Snare Line
Floating docks

Scale

1 nm
1 mi.
1,000 yds.

Lincoln Channel, SE 01-09

Center of map at 54°43' N Lat., 130°40' W Lon.

June 26, 2003

Geographic Response Strategies for Southeast Alaska Subarea

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Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Calm-water Boom
Gate
Shoreside Recovery, Marine Access
Snare Line
Floating docks

Scale

1 nm
1 mi.
1,000 yds.

Lincoln Channel, SE 01-09

Center of map at 54°43' N Lat., 130°40' W Lon.

June 26, 2003

Geographic Response Strategies for Southeast Alaska Subarea

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Soundings in fathoms

Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Calm-water Boom
Gate
Shoreside Recovery, Marine Access
Snare Line
Floating docks

Scale

1 nm
1 mi.
1,000 yds.

Lincoln Channel, SE 01-09

Center of map at 54°43' N Lat., 130°40' W Lon.

June 26, 2003

Geographic Response Strategies for Southeast Alaska Subarea

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Soundings in fathoms
<table>
<thead>
<tr>
<th>ID</th>
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<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE01-09-01</td>
<td>Lincoln Channel</td>
<td>Free-oil Recovery</td>
<td>Deploy free-oil recovery strike teams. Maximize free-oil recovery in the offshore and nearshore waters at the south entrance of Lincoln Channel.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts Lincoln Channel.</td>
<td>Ketchikan; Marine vessel</td>
<td>Via marine waters</td>
<td>Marine mammals, harbor seals, Habitat-tidal mudflats, Cultural resources</td>
<td>Vessel master should have local knowledge. See fig. G-3-2 for equipment locations.</td>
</tr>
<tr>
<td>SE01-09-02</td>
<td>Lincoln Channel</td>
<td>Diversion/Shoreline Recovery</td>
<td>Use class 2 and class 3 or 4 vessels with deck space to transport equipment. Deploy protected water boom, using class 46-6 vessels. Place boom (a) extending into the channel and establish collection on shore. Place (b) between the small island and establish recovery on Kanagunut Island. Establish a gate for vessel traffic. Place (c) at the N. entrance of the channel and establish recovery on Sitkilan Island.</td>
<td>Deployment Equipment: 800 ft. protected-water boom 500 ft. calm-water boom 20 ea. ~40 lbs anchor systems for securing boom 16 anchor stakes 2 shoreside recovery units Vessels: 2 ea. class 2 4 ea. class 3/4 2 ea. class 6 Personnel Shift: 22 ea. vessel crew Tending Vessels: 1 ea. class 3/4 2 ea. class 6</td>
<td>Ketchikan; Marine vessel</td>
<td>Via marine waters</td>
<td>Same as SE01-09-01</td>
<td>Exposed to prevailing SE winds. May not be suitable for deployment during inclement weather. SE01-09-02 should be deployed only during favorable conditions. FOSC Historic Properties Specialist should inspect site prior to operations. Tested: not yet Surveyed: 4/15/03 ADEC, SEAPRO</td>
</tr>
<tr>
<td>SE01-09-03</td>
<td>Lincoln Channel</td>
<td>Exclusion</td>
<td>Use class 2 and class 3 or 4 vessels with deck space to transport equipment. Deploy protected water boom, using class 46-6 vessels. Place boom (a) extending into the channel and establish collection on shore. Place (b) between the small island and establish recovery on Kanagunut Island. Establish a gate for vessel traffic. Place (c) at the N. entrance of the channel and establish recovery on Sitkilan Island.</td>
<td>Deployment Equipment: 1200 ft. protected-water boom 700 ft. calm-water boom 13 ea. ~20 lbs anchor systems 12 anchor stakes Vessels/Personnel/Tending: Same as SE01-09-02</td>
<td>Ketchikan; Marine vessel</td>
<td>Via marine waters</td>
<td>Same as SE01-09-01</td>
<td>Tested: not yet Surveyed: 4/15/03 ADEC, SEAPRO</td>
</tr>
<tr>
<td>SE01-09-04</td>
<td>Lincoln Channel</td>
<td>Passive Recovery</td>
<td>Place 1000 ft. snare line or sorbent boom across mudflats. Anchor with stakes. Replace oiled sections as needed. Use snare line for persistent oils and sorbent boom for non-persistent.</td>
<td>Deployment Equipment: 1000 ft. snare line or sorbent boom 20 ea. anchor stakes Vessels/Personnel/Tending: Same as SE01-09-02</td>
<td>Ketchikan; Marine vessel</td>
<td>Via marine waters</td>
<td>Same as SE01-09-01</td>
<td>Tested: not yet Surveyed: 4/15/03 ADEC, SEAPRO</td>
</tr>
</tbody>
</table>
B. SOUTHEAST ALASKA RESPONSE ZONE 2

Figure G-3-3 represents the Southeast Alaska response zone 2. No sites were selected for zone 2, the reason being that the sensitive areas identified were along exposed areas of the Gulf of Alaska where response equipment is not effective or dangerous to deploy. Figure G-3-4 shows the location of oil spill response equipment throughout zone 2.
C. **SOUTHEAST ALASKA RESPONSE ZONE 3**

Figure G-3-5 provides an overview of the Southeast Alaska response zone 3, identifying the location of each GRS site. Each GRS site has been assigned an identifying number, which has no relevance to the site's protection priority. This section contains geographic response strategies for each numbered site, in numerical order, beginning with SE03-01. Figure G-3-6 shows the location of oil spill response equipment throughout zone 3.

Figure G-3-5. Southeast Alaska Response Zone 3.

Figure G-3-6. Southeast Alaska Response Equipment Locator Map.
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Blind Slough North, SE 03-01

Legend

- Free-oil Containment and Recovery, Shallow Water
- Deflective Booming
- Passive Recovery and Debris Removal
- Protected-water Boom, Ebb Tide
- Protected-water Boom, Flood Tide
- Snare Line

Map

Photo

SE 03-01 Wrangell Narrows and Blind Slough North looking towards the north.

SE 03-03 Blind Slough North looking northeast at Blind Island.

SE 03-03 Blind Slough North looking east at Blind Island.

This is not intended for navigational use.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE03-01-01</td>
<td>Wrangell Narrows. Nearshore waters in the general area of: Lat. 56º38.5'N Lon. 132º55.8'W</td>
<td>Free-oil Recovery - shallow</td>
<td>Deploy free-oil recovery strike teams upwind and up current of Blind Slough. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Wrangell/Marine vessel</td>
<td>Via marine waters Chart 17375 Papkes Landing</td>
<td>Same as SE03-01-02</td>
<td>Vessel masters should have local knowledge.</td>
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<tr>
<td>SE03-01-02</td>
<td>Blind Slough Estuary</td>
<td>Deflection</td>
<td>Deflect oil away from Blind Slough Estuary to FO-S task forces.</td>
<td>Use vessels with deck space (class 2/3/4) to transport equipment and skiffs (class 6) to deploy boom and set anchors. Place 3400 ft of protected water boom arrays to deflect oil to FO-S task force. Reverse boom angle with tide change. Monitor throughout tides.</td>
<td>Boom Arrays 600 ft. 800 ft. 14 ea. vessel crew</td>
<td>Wrangell/Marine Vessel</td>
<td>Via marine waters Papkes Landing</td>
<td>Fish-intertidal salmon/trout spawning (coho, pink, chum, Dolly Varden) Birds-waterfowl and shorebird migration concentrations (April-May and fall) Habitat-sheltered tidal flats, marsh Human use-high recreational use</td>
</tr>
<tr>
<td>a. Lat. 56º38.4'N Lon. 132º55.6'W</td>
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<td>b. Lat. 56º38.4'N Lon. 132º55.4'W</td>
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<td>c. Lat. 56º38.6'N Lon. 132º55.2'W</td>
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<tr>
<td>d. Lat. 56º38.7'N Lon. 132º55.1'W</td>
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<tr>
<td>e. Lat. 56º38.9'N Lon. 132º55.0'W</td>
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<tr>
<td>SE03-01-03</td>
<td>Blind Slough Estuary</td>
<td>Passive Recovery</td>
<td>Place 2400 ft. of snare line or sorbent boom, in three sections, across mouth of Blind Slough.</td>
<td>Use snare line for persistent oil or sorbent boom for non-persistent oil. Deploy at high tide; avoid walking on intertidal zone.</td>
<td>Deployment Equipment 2400 ft. of snare line or sorbent boom.</td>
<td>Wrangell/marine waters</td>
<td>Helicopter or via marine waters</td>
<td>Same as SE03-01-02</td>
</tr>
<tr>
<td>Lat. 56º38.3'N Lon. 132º55.0'W</td>
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</tr>
</tbody>
</table>

See Figure G-3-6 for equipment locations.

Mostly longshore currents. FOSC Historic Properties Specialist should MONITOR on-site operations.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE03-02-01</td>
<td>Kah Sheets Bay</td>
<td>Free-oil Recovery</td>
<td>Deploy free-oil recovery strike teams upward and up-current of Kah Sheets Bay. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Petersburg; Marine vessel</td>
<td>Via marine waters NOAA chart: 17382</td>
<td>Same as SE03-02-03</td>
<td>Shallow water Vesel masters should have local knowledge. Hazing shorebirds should be considered – contact USFWS and ADFG.</td>
</tr>
<tr>
<td>SE03-02-02</td>
<td>Kah Sheets Bay</td>
<td>Exclusion</td>
<td>Place protected-water boom, with tidal-seal on both ends, between islands, to exclude oil from entering Kah Sheets Bay cove. Place Boom (a) must in a chevron pattern due to strong current through the channel.</td>
<td>Deployment: Equipment 2400 ft. protected-water boom 20 ea. anchor systems (~40 lbs.) 4 ea. 50 ft. section tidal-seal boom 8 ea. anchor stakes Vessels/Personal/Shift Same as SE03-02-03</td>
<td>Petersburg; Marine vessel</td>
<td>Via marine waters NOAA chart: 17382</td>
<td>Same as SE03-02-03</td>
<td>Significant SE winds may require the exclusion tactics be deployed at key resources within the bay. Test; not yet Surveyed; not yet</td>
</tr>
<tr>
<td>SE03-02-03</td>
<td>Kah Sheets Bay</td>
<td>Deflection</td>
<td>Use vessels with deck space (class 2/3/4) to transport equipment. Use small fishing vessels and skiffs (class 4/6) to deploy boom and set anchors. Place 8800 ft. of protected-water boom in cascaded arrays to deflect oil to free-oil recovery strike teams. Reconfigure boom when tide changes. Monitor throughout tides.</td>
<td>Deployment: Equipment 8800 ft. protected-water boom 176 ea. anchor systems (~40 lbs.) Vessels 2 ea. class 2 2 ea. class 3/4 2 ea. class 6 Personnel / Shift 16 ea. vessel crew Tending: Vessels 2 ea. class 3/4 2 ea. class 6 Personnel / shift 6 ea. vessel crew</td>
<td>Petersburg; Marine vessel</td>
<td>Via marine waters NOAA chart: 17382</td>
<td>Fish: herring, intersal salmon/ trout spawning (coho, chin, pink, steelhead, cutthroat, Dolly Varden) Birds: waterfowl and shorebird concentration area Habitat: kelp and eelgrass beds, mudflats Human use: high recreational use</td>
<td>This aggressive strategy requires significant experience and resources to implement. With limited resources, deploy one 1800 ft. stepped array (600 ft. each) at northern and southern ends of bay. REPORT any cultural resources found during operations to FOSC Historic Properties Specialist. See Figure G-3-6 for equipment locations. Test; not yet Surveyed; not yet</td>
</tr>
</tbody>
</table>
Petersburg Creek, SE 03-03

Legend

- Free-oil Containment and Recovery, Shallow Water
- Diversion Booming
- Protected-water Boom
- Marine Recovery
- Shoreside Recovery

Map & Photo

SE03-03 Petersburg Creek looking west.
SE03-03 Petersburg Creek looking northwest.

Geographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.

Soundings in fathoms

Center of map at 50° 48.5' N Lat., 132° 59.1' W Lon.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE03-03</td>
<td>Petersburg Creek</td>
<td>Free-oil Recovery</td>
<td>Deploy free-oil recovery strike teams upwind and up-current of Petersburg Creek. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Vessel platform, or Petersburg</td>
<td>Via marine waters</td>
<td>Same as SE03-03-02</td>
<td>Vessel master should have local knowledge due to strong tidal currents and shoal waters.</td>
</tr>
<tr>
<td>SE03-03</td>
<td>Petersburg Creek North</td>
<td>Divert/Recover (flood)</td>
<td>Use class 3/4 vessels with deck space to transport equipment and class 6 vessels to deploy boom and set anchors. Place 1800 ft. of protected-water boom outside of and parallel to the mudflats, to divert oil traveling south to marine recovery.</td>
<td>Deployment Equipment: 1800 ft. protected-water boom 20 ea. anchor systems (~40 lbs.) 1 ea. marine recovery Vessels: 4 ea. class 3/4 2 ea. class 6 Personnel/Shift: 16 ea. vessel crew Tending Vessels: 3 ea. class 3/4 2 ea. class 6 Personnel/Shift: 13 ea. vessel crew</td>
<td>Vessel platform, or Petersburg</td>
<td>Via marine waters</td>
<td>Fish intertidal salmon/spawning (sockeye, chum, pink, steelhead, Dolly Varden, cutthroat) Birds-waterfowl concentration (winter) Habitat: marsh, mudflats Human use: commercial halibut fishing</td>
<td></td>
</tr>
<tr>
<td>SE03-03</td>
<td>Petersburg Creek South</td>
<td>Divert / Recover (ebb)</td>
<td>Divert oil traveling north through Wrangell Narrows during ebb tide away from Petersburg Creek, to marine recovery.</td>
<td>Place 1500 ft. of protected-water boom outside of and parallel to the mudflats, to divert oil traveling north to marine recovery.</td>
<td>Vessel platform, or Petersburg</td>
<td>Via marine waters</td>
<td>Same as SE03-03-02</td>
<td>Tactic SE03-03-02 is implemented during flood tides and tactic SE03-03-03 is implemented during ebb tides. FOSC Historic Properties Specialist should inspect site prior to operations. See Figure G-3-6 for equipment locations. Tested: 5/18/02 SEAPRO Surveyed: 5/18/03 SEAPRO, ADEC</td>
</tr>
<tr>
<td>SE03-03</td>
<td>Petersburg Creek Channel</td>
<td>Divert / Recover</td>
<td>Divert oil entering channel to Petersburg Creek to shoreside recovery.</td>
<td>Place 800 ft. of protected-water boom from small cove, out into the channel to divert oil entering the channel to shoreside recovery.</td>
<td>Vessel platform, or Petersburg</td>
<td>Via marine waters</td>
<td>Same as SE03-03-02</td>
<td>Tested: not yet Surveyed: 5/18/03 SEAPRO, ADEC</td>
</tr>
</tbody>
</table>

June 26, 2003
Blind Slough South, SE 03-04

Soundings in fathoms

Center of map at 56° 32.0' N Lat., 132° 43.5' W Lon.

Legend

Legend

Free-oil Containment and Recovery, Shallow Water
Diversion Booming
Deflection Booming, Fixed
Passive Recovery and Debris Removal
Protected-water Boom
Snare Line
Marine Recovery
Staging Area
Road

June 26, 2003

Geographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
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<th>Implementation</th>
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<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE03-04-01</td>
<td>Blind Slough South Nearshore waters in the general area of Lat. 56º 31.4 N, Lon. 132º 41.7 W</td>
<td>Free-oil Recovery-Shallow Water</td>
<td>Deploy free-oil recovery strike teams upwind and up-current of Blind Slough. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Wrangell via marine waters</td>
<td>Petersburg via the Mitkof Highway or Wrangell by marine access</td>
<td>Same as SE03-04-02 Vessel master should have local knowledge.</td>
<td></td>
</tr>
<tr>
<td>SE03-04-02</td>
<td>Blind Slough South a. Lat. 56º 30.8 N, Lon. 132º 43.3 W b. Lat. 56º 31.8 N, Lon. 132º 40.2 W</td>
<td>Deflection Deflect oil away from the entrance to Blind Slough.</td>
<td>Use vessels with deck space to transport equipment to the site (class 2/3/4). Deploy boom and set anchors with fishing vessels and skiffs (class 3/4/6). Place protected-water boom off the headlands to deflect oil to free-oil recovery. Tend throughout tide.</td>
<td>Deployment Equipment 1600 ft. protected-water boom 18 ea. anchor systems (~40 lbs.) 4 ea. anchor stakes Vessels 1 ea. class 2 2 ea. class 3/4 2 ea. class 6 Personnel / Shift 14 ea. vessel crew Tending Vessels 1 ea. class 3/4 2 ea. class 6</td>
<td>Vessel platform</td>
<td>Via marine waters Chart 17382</td>
<td>Petersburg via the Mitkof Highway or Wrangell by marine access</td>
<td>Fish-intertidal salmon/trout spawning (coho, chum, sockeye, pink, steelhead, Dolly Varden) Birds-waterfowl (year-round), shorebird migration (spring and fall) Habitat-marsh, sheltered tidal flats, sheltered rocky shoreline Human use-High recreational use</td>
</tr>
<tr>
<td>SE03-04-03</td>
<td>Blind Slough Entrance Lat. 56º 31.6 N, Lon. 132º 09.0 W</td>
<td>Divert / Recover Divert oil coming in the main entrance to Blind Slough South to marine recovery.</td>
<td>Deploy anchors and boom with skiffs and fishing vessels (class 3/4/6). Place 4200 ft. of protected-water boom in a chevron pattern at the mouth of Thorne Bay. Establish marine recovery unit at the apex of the boom. Tend throughout the tide.</td>
<td>Deployment Equipment 4200 ft. protected-water boom 4 ea. anchor stakes 42 ea. anchor systems (~40 lbs.) Vessels 1 ea. marine recovery Personnel 2 ea. recovery techs Tending Same as SE03-04-02</td>
<td>Vessel platform</td>
<td>Chart 17382</td>
<td>Petersburg via the Mitkof Highway or Wrangell by marine access</td>
<td>Same as SE03-04-02 Vessel master should have local knowledge.</td>
</tr>
<tr>
<td>SE03-04-04</td>
<td>Blind Slough Tidal Flats a. Lat. 56º 32.3 N, Lon. 132º 44.6 W b. Lat. 56º 32.7 N, Lon. 132º 44.2 W</td>
<td>Passive Recovery Minimize impact to designated areas through passive recovery using snare line or sorbent boom.</td>
<td>Place and anchor 4000 ft. of sorbent or snare line in two arrays, at edge of tidal flats from island to each side of slough.</td>
<td>Deployment Equipment 4000 ft. snare line 400 ea. anchor stakes Vessels, Personnel, Tending Same as SE03-04-02</td>
<td>Vessel platform</td>
<td>Chart 17382</td>
<td>Petersburg via the Mitkof Highway or Wrangell by marine access</td>
<td>Same as SE03-04-02 Vessel master should have local knowledge.</td>
</tr>
</tbody>
</table>

**Note:** Use caution to not drive oil into the substrate.
Free-oil Containment and Recovery, Shallow Water
Diversion Booming
Deflection Booming, Fixed
Passive Recovery and Debris Removal
Protected-water Boom
Tidal-seal Boom
Snare Line
Shoreside Recovery, Marine Access
Possible Staging Area
Eddy
Road

This is not intended for navigational use.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
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<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE03-05-01</td>
<td>Exchange Cove</td>
<td>Free-oil Recovery - Shallow Water</td>
<td>Deploy free-oil recovery strike teams upwind and upcurrent of Exchange Cove. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Wrangell Harbor - Petersburg Harbor</td>
<td>Via marine waters - Chart 1782</td>
<td>Same as SE03-05-02</td>
<td>Vessel master should have local knowledge.</td>
</tr>
<tr>
<td></td>
<td>Neighboring waters in the general area of:</td>
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<tr>
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<td>a. Lat. 56º 13.1 N Long. 133º 03.3 W</td>
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<tr>
<td></td>
<td>b. Lat. 56º 12.4 N Long. 133º 02.4 W</td>
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</tr>
<tr>
<td>SE03-05-02</td>
<td>Exchange Cove</td>
<td>Deflection</td>
<td>Use vessels with deck space to transport equipment to the site (class 2 and 3/4). Deploy boom and set anchors with fishing vessels and skiffs (class 3/4/6)</td>
<td>Deployed protected-water boom system extending from identified point to divert oil into the small cove on Exchange Island. Adjust boom angle as necessary. Establish shoreside recovery unit at point in the small cove that maximizes recovery of oil. Tend through out the tide.</td>
<td>Vessel platform - Staging area on point at the north mouth of Exchange Cove</td>
<td>Via marine waters - Chart 1782</td>
<td>Thorne Bay salmon (months)</td>
<td>Marine mammals - harbor seals - Fish - intertidal salmon (winter) - Birds - waterfowl concentration (winter) - Terrestrial mammals - deer - Habitat - kelp and eelgrass beds, sheltered tidal flats, marsh</td>
</tr>
<tr>
<td></td>
<td>a. Lat. 56º 13.20 N Long. 133º 03.7 W</td>
<td></td>
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<td></td>
<td>Strong currents are present in Kashevarof Passage. Tested: not yet Surveyed: 5/7/03 TLR</td>
</tr>
<tr>
<td></td>
<td>b. Lat. 56º 12.8 N Long. 133º 03.3 W</td>
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<td></td>
<td></td>
<td></td>
<td>Marine mammals should have local knowledge.</td>
</tr>
<tr>
<td>SE03-05-03</td>
<td>Exchange Island</td>
<td>Divert / Recover</td>
<td>Deploy anchors and boom with skiffs and fishing vessels (class 3/4/6). Place protected-water boom extending from identified point to divert oil into the small cove on Exchange Island. Establish shoreside recovery unit at point in the small cove that maximizes recovery of oil. Tend through out the tide.</td>
<td>Deployed protected-water boom system extending from identified point to divert oil into the small cove on Exchange Island. Adjust boom angle as necessary. Establish shoreside recovery unit at point in the small cove that maximizes recovery of oil. Tend through out the tide.</td>
<td>Vessel platform - Staging area on point at the north mouth of Exchange Cove</td>
<td>Via marine waters - Chart 1782</td>
<td>SAME as SE03-05-02</td>
<td>Vessel master should have local knowledge.</td>
</tr>
<tr>
<td></td>
<td>Lat. 56º 12.5 N Long. 133º 02.8 W</td>
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<td>Probable spill location is north in Snow Passage or Summer Strait. FOSC Historic Properties Specialist should MONITOR on-site operations. Tested: not yet Surveyed: 5/7/03 TLR</td>
</tr>
<tr>
<td>SE03-05-04</td>
<td>Exchange Cove</td>
<td>Exclusion</td>
<td>Deploy protected-water boom, using class 4/6 vessels. Place the boom in a pattern appropriate for the current using the islands as anchor points. Keep boom in currents of less than 1 kt.</td>
<td>Deployed protected-water boom system extending from identified point to divert oil into the small cove on Exchange Island. Adjust boom angle as necessary. Establish shoreside recovery unit at point in the small cove that maximizes recovery of oil. Tend through out the tide.</td>
<td>Vessel platform - Staging area on point at the north mouth of Exchange Cove</td>
<td>Via marine waters - Chart 1782</td>
<td>SAME as SE03-05-02</td>
<td>Vessel master should have local knowledge.</td>
</tr>
<tr>
<td></td>
<td>Lat. 56º 13.1 N Long. 133º 03.5 W</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Strong currents are present in Kashevarof Passage. Tested: not yet Surveyed: 5/7/03 TLR</td>
</tr>
<tr>
<td>SE03-05-05</td>
<td>Exchange Cove</td>
<td>Passive Recovery</td>
<td>Place and anchor 3300 ft. of snare line or sorbent boom across cove south of Exchange Island, at or above the low tide line.</td>
<td>Place and anchor 3300 ft. of snare line or sorbent boom across cove south of Exchange Island, at or above the low tide line.</td>
<td>Vessel platform - Staging area on point at the north mouth of Exchange Cove</td>
<td>Via marine waters - Chart 1782</td>
<td>SAME as SE03-05-02</td>
<td>Vessel master should have local knowledge.</td>
</tr>
<tr>
<td></td>
<td>Lat. 56º 13.3 N Long. 133º 04.5 W</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Marine mammals - harbor seals - Fish - intertidal salmon (winter) - Birds - waterfowl concentration (winter) - Terrestrial mammals - deer - Habitat - kelp and eelgrass beds, sheltered tidal flats, marsh</td>
</tr>
</tbody>
</table>

**Southeast Alaska Geographic Response Strategies**

**June 26, 2003**
Windham Bay, SE 03-06

Center of map at 56° 33.1' N Lat., 133° 24.8' W Lon.

Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Tidal-seal Boom
Snare Line

SE03-06 Looking east into Windham Bay.
SE03-06-02 Looking south at the Chuck River.
SE03-06-03 Looking east at the head of Windham Bay.

This is not intended for navigational use.
<table>
<thead>
<tr>
<th>ID</th>
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<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE03-06-01</td>
<td><strong>Windham Bay / The Narrows</strong>&lt;br&gt;Nearshore waters in the general area of:&lt;br&gt;a. Lat. 57º 35.2 N Lon. 133º 26.9 W&lt;br&gt;b. Lat. 57º 35.08 N Lon. 133º 25.57 W</td>
<td>Free-oil Recovery - Shallow Water&lt;br&gt;Maximize free-oil recovery in the offshore &amp; nearshore environment at The Narrows in Windham Bay.</td>
<td>Deploy free-oil recovery strike teams upwind and up current of the head of Windham Bay, near The Narrows.&lt;br&gt;Use aerial surveillance to locate incoming slicks.&lt;br&gt;Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Juneau&lt;br&gt;Via marine waters&lt;br&gt;Chart 17360</td>
<td>Engle&lt;/br&gt;Vessel master should have local knowledge.</td>
<td>Same as SE03-06-01</td>
<td>Use snare line for persistent oils and sorbent boom for non-persistent oils.</td>
<td></td>
</tr>
<tr>
<td>SE03-06-02</td>
<td><strong>Windham Bay / Chuck River</strong>&lt;br&gt;Lat. 57º 35.3 N Lon. 133º 22.0 W</td>
<td>Exclusion&lt;br&gt;Exclude oil from entering the Chuck River and the adjacent tidal flats.</td>
<td>Use vessels with deck space to transport equipment to the site (class 3/4).&lt;br&gt;Use vessels (class 3/4/6) to deploy boom and set anchors.&lt;br&gt;Place 2200 ft. of protected-water boom across the mouth of the Chuck River.</td>
<td>Vessel platform&lt;br&gt;Via marine waters&lt;br&gt;Chart 17360</td>
<td>Marine mammals - harbor seals, Foss Historic Properties&lt;br&gt;Fish - salmon/trout concentrations &lt; 10000 (sockeye, pink, chum, coho, king, steelhead, Dolly Varden, cutthroat)&lt;br&gt;Birds - waterfowl concentrations (winter)&lt;br&gt;Habitat - marsh, estuary, sheltered tidal flat.&lt;br&gt;Vessel master should have local knowledge.&lt;br&gt;Specialist should MONITOR on-site operations.&lt;br&gt;Tested: Not yet</td>
<td>Same as SE03-06-01</td>
<td>Use snare line for persistent oils and sorbent boom for non-persistent oils.</td>
<td></td>
</tr>
<tr>
<td>SE03-06-03</td>
<td><strong>Head of Windham Bay</strong>&lt;br&gt;Lat. 57º 35.6 N Lon. 133º 21.0 W</td>
<td>Passive Recovery&lt;br&gt;Minimize impact to designated area through passive recovery using snare line or sorbent boom.</td>
<td>Place and anchor 3600 ft. of snare line or sorbent boom across the head of Windham Bay at or above the tidal flats.&lt;br&gt;Deployment&lt;br&gt;Equipment&lt;br&gt;3600 ft. snare line or sorbent boom&lt;br&gt;38 ea. anchor stakes&lt;br&gt;Vessels, Personnel, Tending&lt;br&gt;Same as SE03-06-02</td>
<td>Vessel platform&lt;br&gt;Via marine waters&lt;br&gt;Chart 17360</td>
<td>Use snare line for persistent oils and sorbent boom for non-persistent oils.</td>
<td>Same as SE03-06-01</td>
<td>Use snare line for persistent oils and sorbent boom for non-persistent oils.</td>
<td></td>
</tr>
</tbody>
</table>
Hobart Bay, SE 03-07

Legend

- Free-oil Containment and Recovery, Shallow Water
- Exclusion Booming
- Deflection Booming, Fixed
- Diversion Booming
- Passive Recovery and Debris Removal
- Protected-water Boom
- Snare Line
- Marine Recovery

Map

Photo

SE03-07-02 Looking north at Hobart Bay.

SE03-07-05a Looking south over North Hobart Bay.

SE03-07-05b Looking southeast in Hobart Bay.

SE03-07-03b & 05c Looking north at the head of Hobart Bay.

GEographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.

Soundings in fathoms

June 26, 2003

- Free-oil Containment and Recovery
- Exclusion Booming
- Deflection Booming, Fixed
- Diversion Booming
- Passive Recovery and Debris Removal
- Protected-water Boom
- Snare Line
- Marine Recovery

Scale

1 nm
1 mi.
1,000 yds.
<table>
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<th>Site Access</th>
<th>Resources Protected (units)</th>
<th>Special Considerations</th>
</tr>
</thead>
</table>
| SE03-07-01 | Hobart Bay  
Lat. 57º 25 N  
Lon. 133º 24 W  
(approximate location) | Free-oil Recovery  
Maximize recovery of oil at  
the mouth of Bay and east of  
"choke point". | Deploy free-oil recovery strike. Use aerial surveillance to locate areas of heavy slick concentrations. | Two free-oil recovery strike teams to intercept oil before it impacts sensitive areas. | Juneau, and/or  
Petersburg | Via marine  
waters  
Note: Bear  
threat of  
harassment along  
shoreline  

Marine mammals—harbor seals  
Fish—intertidal salmon/trout spawning (pink, chum, coho,  
steelhead, Dolly Varden, cutthroat)  
Birds—waterfowl concentrations  
>1000 (winter)  

Invertebrates—crab  

FOSC Historic Properties  
Specialist should inspect  
site prior to operations.  
See Figure G-3-6 for  
equipment locations. | Tested: not yet |
| SE03-07-02 | Hobart Bay  
Lat. 57º 25.17 N  
Lon. 133º 25.6 W  
(eastern end or location of recovery unit) | Divergence/Recovery  
Divert oil entering north of  
Entrance Island to shoreline or marine recovery unit. | Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy boom and set anchors. Use class 3/4 vessels for transport. | Two free-oil recovery strike teams to intercept oil before it impacts sensitive areas. | See SE03-07-01 | See SE03-07-01 | See SE03-07-01 | See SE03-07-01 |
| SE03-07-03 | Hobart Bay  
Lat. 57º 26.6 N  
Lon. 133º 26.4 W  
Lat. 57º 26.6 N  
Lon. 133º 21.2 W | Exclusion  
Protect mudflats and marsh using exclusion boom anchored to achieve a convex shape. | Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy boom and set anchors. Use class 3/4 vessels for transport. | 2400 ft. of protected-water boom. | See SE03-07-01 | See SE03-07-01 | See SE03-07-01 | See SE03-07-01 |
| SE03-07-04 | Hobart Bay  
Lat. 57º 25.3 N  
Lon. 133º 27.3 W  
Lat. 58º 42.54 N  
Lon. 136º 00.46 W | Deflection  
Deflect oil away from shoreline towards diversion/recovery boom. | Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy boom and set anchors. Use class 3/4 vessels for transport. | 500 ft. of protected-water boom. | See SE03-07-01 | See SE03-07-01 | See SE03-07-01 | See SE03-07-01 |
| SE03-07-05 | Hobart Bay  
Lat. 57º 26.0 N  
Lon. 133º 27.8 W  
Lat. 57º 26.9 N  
Lon. 133º 21.1 W  
Lat. 57º 25.2 N  
Lon. 133º 22.1 W | Passive Recovery  
Minimize impact to intertidal wetlands, mudflats and marsh through passive recovery using snare line or sorbent boom. | Place up to 7600 ft. of snare line or sorbent boom across mudflats. Anchor with stakes. Replace aided sections as needed. Use snare line for persistent oils and sorbent boom for non-persistent. | 7600 ft. of snare line or sorbent boom 80 ea. anchor stakes 1000 ft. of line | See SE03-07-01 | See SE03-07-01 | See SE03-07-01 | See SE03-07-01 |

**June 26, 2003**

**Southeast Alaska Geographic Response Strategies**

**SE03-07**
Salmon Bay, SE 03-08

Legend

- Free-oil Containment and Recovery, Shallow Water
- Exclusion Booming
- Deflection Booming, Fixed/Ebb Tide
- Deflection Booming, Fixed/Flood Tide
- Passive Recovery and Debris Removal
- Protected-water Boom
- Tidal-seal Boom
- Snare Line
- Shoreside Recovery, Marine Access
- Salmon Spawning Stream

June 26, 2003

Geographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE03-08-01</td>
<td>Salmon Bay Lat. 56º 18 N Lon. 133º 09 W (approximate location)</td>
<td>Free-oil Recovery</td>
<td>Maximize recovery of oil in the offshore and nearshore area</td>
<td>Deploy free-oil recovery strike team. Use aerial surveillance to locate areas of heavy slick concentrations. Three free-oil recovery strike teams to intercept oil before it impacts sensitive areas.</td>
<td>Wrangell or Whale Pass</td>
<td>Via marine waters</td>
<td>See SE03-08-02</td>
<td>Vessel masters should have local knowledge, many rocks to avoid.</td>
</tr>
<tr>
<td>SE03-08-02</td>
<td>Salmon Bay</td>
<td>Exclusion</td>
<td>Protect mudflats, marsh and intertidal habitats using exclusion boom.</td>
<td>Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy boom and set anchors. Deploy 6700 ft. of protected-water boom anchored every 500 ft. to achieve convex shape. NOTE: Alternative to SE03-08-02b is to divert oil to shoreside recovery on the gravel beach inside Salmon Bay.</td>
<td>Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy boom and set anchors. Deploy three arrays of protected-water boom depending on tidal currents. Adjust boom angle to maximize deflection. Tend throughout tide.</td>
<td>See SE03-08-01</td>
<td>See SE03-08-01</td>
<td>Marine mammals- harbor seals Fish-intertidal salmon/trout spawning (coho, pink, chum, Dolly Varden, cutthroat) Habitat-marsh Birds-waterfowl concentration, shore bird migration Terrestrial mammals- deer, black bear</td>
</tr>
<tr>
<td>SE03-08-03</td>
<td>Salmon Bay</td>
<td>Deflection</td>
<td>Deflect oil offshore away from intertidal areas.</td>
<td>Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy boom and set anchors. Deploy three arrays of protected-water boom depending on tidal currents.</td>
<td>Use resources listed in SE03-08-02</td>
<td>See SE03-08-01</td>
<td>See SE03-08-01</td>
<td>Check currents at various deployment points. Tested: not yet Surveyed: 5/7/03 TLR</td>
</tr>
<tr>
<td>SE03-08-04</td>
<td>Salmon Bay</td>
<td>Passive Recovery</td>
<td>Minimize impact to intertidal wetlands, mudflats and marsh through passive recovery using snare line or sorbent boom.</td>
<td>Place up to 3000 ft. of snare line or sorbent boom across mud flats or above low tide line. Anchor with stakes. Replace oiled sections as needed. Use snare line for persistent oils and sorbent boom for non-persistent.</td>
<td>See SE03-08-01</td>
<td>See SE03-08-01</td>
<td>See SE03-08-02</td>
<td>Surveyed: 5/7/03 TLR</td>
</tr>
</tbody>
</table>
Steamer Bay, SE 03-09

Center of map at 56° 09' N Lat., 132° 41' W Lon.

This is not intended for navigational use.

Free-oil Containment and Recovery, Shallow Water
Diversion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Tidal-seal Boom

Snare Line
Shoreside Recovery, Marine Access
Anchorage
Mooring Buoy
USFS Public Cabin

Flood Tide

Legend

Geographic Response Strategies for Southeast Alaska Subarea

Map & Photo

Soundings in fathoms

June 26, 2003

Free-oil Containment and Recovery, Shallow Water
Diversion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Tidal-seal Boom

Legend

Map & Photo

Soundings in fathoms

June 26, 2003
<table>
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<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (mental)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE03-09-01</td>
<td>Steamers Bay Lat. 56º 10 N Lon. 132º 42 W (approximate location)</td>
<td>Free-oil Recovery</td>
<td>Maximize recovery of oil at the mouth of Bay. Use aerial surveillance to locate areas of heavy slick concentrations.</td>
<td>Two or three free-oil recovery strike teams to intercept oil before it impacts sensitive areas.</td>
<td>Wrangell or marine vessel</td>
<td>Via marine waters</td>
<td>Forest Service public use cabin and mooring might be used by responders.</td>
<td>Prevailing wind are southeast out of the bay. North winds will push oil to eastern shore.</td>
</tr>
<tr>
<td>SE03-09-02</td>
<td>Steamers Bay a. Lat. 56º 09.43 N Lon. 132º 41.7 W b. Lat. 56º 09.3 N Lon. 132º 41.08 W c. Lat. 56º 09.3 N Lon. 132º 41.2 W d. Lat. 56º 08.9 N Lon. 132º 40.6 W</td>
<td>Diversion/Recovery</td>
<td>Divert oil entering mouth of Bay to shoreline for recovery. Combine with passive recovery (SE03-09-03) to protect adjacent areas.</td>
<td>Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy boom and set anchors. Place total of 3600 ft of boom to divert oil to shoreline for recovery. Boom (d) can be stepped in 600 ft sections or may be backed further into the bay if conditions require.</td>
<td>Deployment: Equipment 3600 ft protected water boom 30 ea. ~40 lbs anchor systems 4 ea. A anchor stakes. 1 ea. shore side recovery unit Vessels 2 ea. class 3/4 2 ea. class 6 Personnel/Shift 10 ea. vessel crew Tending Vehicles 1 ea. class 3/4 2 ea. class 6 Personnel/Shift 6 ea. vessel crew 2 ea. response techs</td>
<td>See SE03-09-02</td>
<td>See SE03-09-01 Fish intertidal salmon spawning (coho, pink, chum) Habitat-kelp and eelgrass beds Human use high recreational use Birds-waterfowl concentration Intertidal-clams and blue mussels Terrestrial mammals-deer</td>
<td>Vessel Masters should have local knowledge.</td>
</tr>
<tr>
<td>SE03-09-03</td>
<td>Steamers Bay a. Lat. 56º 10.0 N Lon. 132º 41.3 W b. Lat. 56º 9.4 N Lon. 132º 42.2 W c. Lat. 56º 9.4 N Lon. 132º 41.8 W d. Lat. 56º 9.3 N Lon. 132º 41.0 W e. Lat. 56º 9.1 N Lon. 132º 41.3 W f. Lat. 56º 8.9 N Lon. 132º 40.6 W</td>
<td>Passive Recovery</td>
<td>Minimize impact to intertidal mudflats through passive recovery using snare line or sorbent boom.</td>
<td>Place up to 2500 ft of snare line or sorbent boom across mud flats. Anchor with stakes. Replace oiled sections as needed. Use snare line for persistent oils and sorbent boom for non-persistent.</td>
<td>Deployment: Equipment 4400 ft snare line or sorbent boom 36 ea. anchor stakes. 1000 ft of line. Vessels/Personnel/Tending Use resources listed in SE03-09-02</td>
<td>See SE03-09-01</td>
<td>See SE03-09-01</td>
<td>See SE03-09-02</td>
</tr>
</tbody>
</table>
Stikine River Delta, SE 03-10

Legend

- Free-oil Containment and Recovery, Shallow Water
- Passive Recovery and Debris Removal
- Snare Line
- Staging Area
- Airport

SE03-10 Stikine River Delta looking north.

SE03-10 Stikine River Delta looking north over Kadin Island.

SE03-10 Stikine River Delta looking towards the northwest.

This is not intended for navigational use.
<table>
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<tr>
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<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE03-10-01</td>
<td>Stikine River Delta - South Arm</td>
<td>Free-oil Recovery</td>
<td>Deploy free-oil recovery strike teams at entrances to the Stikine River delta. Use aerial support to locate oil slicks.</td>
<td>Multiple free-oil recovery strike teams to intercept oil before it impacts sensitive areas.</td>
<td>Wrangell</td>
<td>Via marine waters</td>
<td>Marine mammals-harbor seals, Fish, intertidal salmon/mink, spawning (king, coho, chum, sockeye, pink, steelhead, Dolly Varden, cutthroat) Birds, waterfowl and shorebird concentrations of national significance, Habitat, marsh, sheltered tidal flats, Human use, subsistence, Land Management, International Shorebird Reserve</td>
<td>Aerial surveillance should identify areas of natural convergence where fresh water and brackish water may temporarily contain oil slicks, allowing more efficient marine recovery. Hazing shorebirds should be contacted, contact USFWS and ADFG. Tested: not yet Surveyed: 5/6/03 TLR</td>
</tr>
<tr>
<td>SE03-10-02</td>
<td>Stikine River Delta - South Arm</td>
<td>Passive Recovery</td>
<td>Place up to 6000 ft. of snare line or sorbent boom in each location across mudflats. Deploy on flood tides. Anchor with stakes. Replace oiled sections as needed. Use snare line for persistent oils and sorbent boom for non-persistent.</td>
<td>Deployment: Equipment: 18000 ft. snare line or sorbent boom 400 ea. anchor stakes 3000 ft. of line Vessels: 6 ea. shallow draft or jet driven vessels or air-boats supported by offshore vessel Personnel/Tending: 6 ea. to deploy and set up 6 ea. to tend, maintain, recover oily debris</td>
<td>Wrangell</td>
<td>Via marine waters</td>
<td>Same as SE-03-10-01</td>
<td>This area is extremely dynamic. Charts are not accurate. Tactics cannot be proscribed in detail. Site surveys must be conducted immediately before equipment deployment. FOSC Historic Properties Specialist should MONITOR on-site operations. See Figure G-3-6 for equipment locations. Care must be given to prevent harm to mud flat. In particular, precautions must be taken to prevent oil from being pushed into substrate. The river channels change yearly and require local knowledge to navigate safely. Very shallow waters with numerous bars, stranding is possible. Surveyed: 5/6/03 TLR</td>
</tr>
</tbody>
</table>
Tracy Arm, SE 03-11

Center of map at 57°33’ N Lat., 133°12’ W Lon.

Legend

- Free-oil Containment and Recovery, Shallow Water
- Exclusion Booming
- Containment and Recovery
- Protected-water Boom

Soundings in fathoms

Tracy Arm stream looking south.

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<th>Site Access</th>
<th>Resources Protected</th>
<th>Special Considerations</th>
</tr>
</thead>
</table>
| SE03-11-01 | Tracy Arm  
Lat. 57º 53 N  
Lon. 133º 12 W | **Containment and Recovery near source**  
Deploy boom around vessel casualty, taking care to avoid seal pupping areas. | Use class 2 and class 3 or 4 vessels with deck space to transport equipment. Place protected-water boom around vessel using class 6 skiffs.  
**Deployment**  
Equipment  
1500 ft. of calm-water boom. Deep water will likely prevent preclude use of anchors. Skiffs may be used to prevent boom from vessel hull.  
**Vessels/Personnel/Tending**  
See SE03-11-03 | Vessel platform  
Via marine waters | | Marine mammals: harbor seal haul-out & pupping on floating ice  
Fish: pink salmon  
Birds: gull colonies, kittlitz’s and marbled murrelet feeding area  
Human use: high recreational use | Must contend with floating ices, many of which may be occupied by seal pups.  
Communications back to Incident Command Post (including satellite phones) will be difficult due to steep fjords and remote location. |
| SE03-11-02 | Tracy Arm  
Lat. 57º 53 N  
Lon. 133º 11 W | **Free-oil Recovery**  
Maximize free-oil recovery in the waters of Tracy Arm fjord. | Deploy free-oil recovery strike teams. Ensure operations are not close to seal haul-outs & pupping.  
Multiple free-oil recovery strike teams as required to maximize interception of oil. | Juneau  
Via marine waters | Same as SE03-11-01 | FOSC Historic Properties  
Specialist should MONITOR on-site operations.  
See Figure G-3-6 for equipment locations.  
See SE03-11-01 | |
| SE03-11-03 | Tracy Arm  
a. Lat. 57º 52.5N  
Lon. 133º 18.5W  b. Lat. 57º 52.6 N  
Lon. 133º 12 W | **Exclusion**  
Protect streams, mudflats and marsh using exclusion boom anchored to achieve a convex shape. | Use class 2 and class 3 or 4 vessels with deck space to transport equipment. Place protected-water boom, with tidal-seal on each end using class 6 skiffs.  
**Boom Arrays**  
1500 ft.  
**Deployment**  
Equipment  
1500 ft. protected-water boom  
6 ea. ~40 lbs anchor systems for securing boom every 250 feet.  
2 ea. 50 ft. of tidal-seal boom units  
2 anchor stakes  
**Vessels**  
2 ea. class 2  
2 ea. class 3/4  
2 ea. class 6  
**Personnel Shift**  
18 ea vessel crew  
**Tending**  
Vessels  
1 ea. class 3/4  
2 ea. class 6  
**Personnel/shift**  
5 ea. vessel crew | Juneau  
Via marine waters | Same as SE03-11-01 | Tested: not yet |
D. SOUTHEAST ALASKA RESPONSE ZONE 4

Figure G-3-7 provides an overview of the Southeast Alaska response zone 4, identifying the location of each GRS site. Each GRS site has been assigned an identifying number, which has no relevance to the site's protection priority. This section contains geographic response strategies for each numbered site, in numerical order, beginning with SE04-01. Figure G-3-8 shows the location of oil spill response equipment throughout zone 4.

Figure G-3-7. Southeast Alaska Response Zone 4.
Big John Bay, SE 04-01

Center of map at 56° 48.1' N Lat., 133° 43.4' W Lon.

Legend

- **Free-oil Containment and Recovery, Shallow Water**
- **Exclusion Booming**
- **Diversion Booming**
- **Tidal-seal Boom**
- **Marine Recovery**
- **Aquaculture Pens (Oyster Farms)**
- **Protected-water Boom**

This is not intended for navigational use.

Soundings in fathoms

June 26, 2003

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Tidal-seal Boom
Aquaculture Pens (Oyster Farms)
Protected-water Boom

Horseshoe Island

3-4 kts current at max flood
7 kts current at max flood

Geographic Response Strategies for
Southeast Alaska Subarea

Big John Bay, looking towards the east. Note aquaculture site.

Note: This is not intended for navigational use.
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<th>Site Access</th>
<th>Resources Protected</th>
<th>Special Considerations</th>
</tr>
</thead>
</table>
| SE04-01-01 | Big John Bay Nearshore waters in the general area of:  
  a. Lat. 56º 48.1 N  
  Lon. 133º 47.0 W  
  b. Lat. 56º 47.6 N  
  Lon. 133º 42.8 W  
  c. Lat. 56º 47.4 N  
  Lon. 133º 46.2 W | Free-oil Recovery-Shallow Water | Deploy free-oil recovery strike teams inside the entrances to Big John Bay. Use aerial surveillance to locate incoming slicks. | Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas. | Vessel platform Kake | Via marine waters Chart 17372a | Same as SE04-01-02 | Vessel masters should have local knowledge. |
| SE04-01-02 | Big John Bay North Entrance  
  a. Lat. 56º 48.3 N  
  Lon. 133º 46.3 W  
  b. Lat. 56º 48.0 N  
  Lon. 133º 46.4 W | Diversion / Recovery | Divert oil entering the north entrance to Big John Bay to marine recovery. Use class 2 and class 3/4 vessels with deck space to transport equipment. Class 6 setnet or seine slides to deploy boom and set anchors. Place 1600 ft. of protected water boom in a chevron pattern, in the north entrance to Big John Bay, and 1000 ft. in a chevron pattern, between islands to divert oil to marine recovery vessels. | Use class 2 and class 3/4 vessels with deck space to transport equipment. Class 6 setnet or seine slides to deploy boom and set anchors. Place 1600 ft. of protected water boom in a chevron pattern, in the north entrance to Big John Bay, and 1000 ft. in a chevron pattern, between islands to divert oil to marine recovery vessels. | Vessel platform Kake | Via marine waters Chart 17360 | Same as SE04-01-02 | Tested: not yet |
| SE04-01-03 | Big John Bay  
  a. Lat. 56º 47.7 N  
  Lon. 133º 46.2 W  
  b. Lat. 56º 47.6 N  
  Lon. 133º 45.3 W | Exclusion | Exclude oil from entering Big John Bay between small islands  
  a. 600  
  b. 1500 | Place 600 ft. of protected water boom, with tidal seal on both ends, between small islands south of northern entrance to Big John Bay.  
  b. Place 1500 ft. of protected water boom to protect aquaculture pens. | Vessel platform Kake | Via marine waters Chart 17360 | Same as SE04-01-02 | Tested: not yet |
| SE04-01-04 | Big John Bay  
  Lat. 56º 47.8 N  
  Lon. 133º 46.2 W | Deflection | Deflect oil entering Big John Bay to free-oil task force  
  Place 600 ft. of protected water boom to deflect oil to free-oil task force. | Place 600 ft. of protected water boom to deflect oil to free-oil task force. | Vessel platform Kake | Via marine waters Chart 17360 | Same as SE04-01-02 | Tested: not yet |
Keku Islands, SE 04-02

Center of map at 56° 55.8’ N Lat., 134° 05.8’ W Lon.

This is not intended for navigational use.

Soundings in fathoms

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Deflection Booming, Fixed
Passive Recovery and Debris Removal
Protected-water Boom
Tidal-seal Boom
Shoreside Recovery, Marine Access

Net Flow

Legend

SE04-02-04d Keku Islands looking towards the north.
SE04-02-02d Keku Islands looking towards the northwest. Note spill response boom in photograph.
SE04-02-04a Keku Islands looking towards the north. Note spill response boom in photograph.
### Location and Description

**SE04-02-01**
Keku Islands
Nearshore waters in the general area of:
- a. Lat. 56º 57.3 N
  Lon. 134º 08.1 W
- b. Lat. 56º 56.1 N
  Lon. 134º 08.0 W
- c. Lat. 56º 55.2 N
  Lon. 134º 02.8 W

### Response Strategy

**Free-oil Recovery**
Maximize free-oil recovery inside of Keku Islands.

### Implementation

- Deploy nearshore free-oil recovery strike teams inside of Keku Islands. 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.

### Response Resources

- **Vessel platform**
- **Via marine waters**
- **Marine mammals—whales, sea otter**
- **Fish—herring**
- **Birds—waterfowl concentrations (summer, high winter use), shorebird concentrations (winter)**
- **Habitat—kelp beds and eelgrass, salt chuck, high intertidal diversity**
- **Human use—high subsistence use, salmon harvest, high recreational use, aquaculture**

### Staging Area

- **Vessel masters should have local knowledge.**
- **FOSC Historic Properties Specialist should MONITOR on-site operations.**

### Site Access

- **Tested: 8/20/02 SEAPRO**
- **Surveyed: 8/20/02 SEAPRO, USCG, TLR**

### Resources Protected

- **(months)**

### Special Considerations

- Use caution to not drive oil into the substrate.

### SE04-02-02
Payne Island

#### Deflection

- **Deflect oil from sensitive areas.**
- a. 800 ft.
- b. 200 ft.
- c. 600 ft.
- d. 1200 ft.

#### Deployment

- **Equipment**
  - 2800 ft. protected-water boom
  - 10 ea. anchor systems (~40 lbs.)
  - 2 ea. anchor stakes

#### Deployment

- **Equipment**
  - 2000 ft. protected-water boom
  - 22 ea. anchor systems (~40 lbs.)
  - 1 ea. marine recovery

#### Vessels

- 2 ea. class 2
- 2 ea. class 3/4
- 2 ea. class 6

#### Personnel / Shift

- 18 ea. vessel crew

#### Vessels

- **Tending**
  - 2 ea. class 2
  - 2 ea. class 3/4
  - 2 ea. class 6

- 6 ea. vessel crew

#### Vessel platform

- **Via marine waters**
- **Same as SE04-02-01**
- **Surveyed: 8/20/02 SEAPRO, USCG, TLR**

### SE04-02-03
Payne Island

#### Diversion

- **Divert oil to cove on Payne Island for shoreside recovery.**
- Use vessels with deck space (class 2/3/4) to transport equipment. Use skiffs (class 6) to deploy boom and set anchors. Place 2000 ft. of protected-water boom to divert oil to marine recovery in cove on Payne Island.

#### Deployment

- **Equipment**
  - 2000 ft. protected-water boom
  - 22 ea. anchor systems (~40 lbs.)
  - 1 ea. marine recovery

#### Vessels

- 2 ea. class 2
- 2 ea. class 3/4
- 2 ea. class 6

#### Personnel / Shift

- 18 ea. vessel crew

#### Vessels

- **Tending**
  - 2 ea. class 2
  - 2 ea. class 3/4
  - 2 ea. class 6

- 6 ea. vessel crew

#### Vessel platform

- **Via marine waters**
- **Same as SE04-02-01**
- **Surveyed: 8/20/02 SEAPRO, USCG, TLR**

### SE04-02-04

#### Exclusion

- **Exclude oil from entering area between islands as shown.**
- Place 8,800 ft. of protected-water boom in multiple arrays, with tidal-seal on all ends, between islands to exclude oil from areas shown.

#### Deployment

- **Equipment**
  - 8,800 ft. protected-water boom
  - 92 ea. anchor systems (~40 lbs.)
  - 14 ea. 50 ft. tidal-seal
  - 28 ea. anchor stakes

#### Vessels

- **Same as SE04-02-01**
- **Surveyed: 8/20/02 SEAPRO, USCG, TLR**

### SE04-02-05
Payne Island

#### Passive Recovery

- **Protect salt chuck with snare line and sorbent boom.**
- Place snare-line or sorbent boom across the entrance of the salt marsh at the back of the bay.

#### Deployment

- **Equipment**
  - 200 ft. snare line or sorbent boom
  - 2 ea. anchor stakes

#### Vessels

- **Via marine waters**
- **Same as SE04-02-01**
- **Surveyed: 8/20/02 SEAPRO, USCG, TLR**

### Special Considerations

- Use caution to not drive oil into the substrate.
- Surveyed: 8/20/02 SEAPRO, USCG, TLR
Gambier Bay, SE 04-03

Soundings in fathoms

Center of map at 57° 27.7' N Lat., 133° 58.8' W Lon.

Legend

- Free-oil Containment and Recovery, Shallow Water
- Exclusion Booming
- Protected-water Boom
- Tidal-seal Boom
- Public Use Cabin
- Bear in Area, Guards Needed

This is not intended for navigational use.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE04-03-01</td>
<td>Gambier Bay - NW Arm</td>
<td>Free-oil Recovery</td>
<td>Deploy nearshore free-oil recovery strike teams upwind and up-current of Gambier Bay. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple nearshore free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Vessel platform</td>
<td>Via marine waters</td>
<td>Marine mammals-harbor seals</td>
<td>Shallow and rocky waters. Vessel masters should have local knowledge. Bears in area.</td>
</tr>
<tr>
<td></td>
<td>Nearshore waters in the general area of:</td>
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<tr>
<td></td>
<td>Gambier Bay, Gain Island,</td>
<td>Exclusion</td>
<td>Exclude oil from Gambier Bay. Use class 2 and class 3/4 vessels with deck space to transport equipment. Place 5800 ft. of protected-water boom, in three arrays, with tidal-seal on each end between mainland and islands and between islands, to prevent oil from entering Gambier Bay.</td>
<td>Use class 2 and class 3/4 vessels with deck space to transport equipment. Place 5800 ft. of protected-water boom, in three arrays, with tidal-seal on each end between mainland and islands and between islands, to prevent oil from entering Gambier Bay.</td>
<td>Vessel platform</td>
<td>Via marine waters</td>
<td>Same as SE04-03-01</td>
<td>USFS Public use cabin. FOSC Historic Properties Specialist should MONITOR on-site operations. See Figure G-3-8 for equipment locations. Bears in area. Tested: not yet</td>
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<td>Church Pt. near Aid “Z”</td>
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<td>c. Lat. 57º 26.9 N Lon. 133º 54.9 W</td>
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<td></td>
<td>Entrance to North Arm and cove</td>
<td>Exclusion</td>
<td>Exclude oil from cove and north arm of Gambier Bay. Place 5200 ft. of protected-water boom, in two arrays, with tidal-seal on each end, from each end of Good Island to the mainland to prevent oil from entering North arm of Gambier Bay and one array, with tidal-seal on each end, across mouth of small cove.</td>
<td>Place 5200 ft. of protected-water boom, in two arrays, with tidal-seal on each end, from each end of Good Island to the mainland to prevent oil from entering North arm of Gambier Bay and one array, with tidal-seal on each end, across mouth of small cove.</td>
<td>Vessel platform</td>
<td>Via marine waters</td>
<td>Same as SE04-03-01</td>
<td>Tested: not yet</td>
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<td></td>
<td>a. Lat. 57º 29.2 N Lon. 133º 55.0 W</td>
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<td>b. Lat. 57º 29.3 N Lon. 133º 54.4 W</td>
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<td>c. Lat. 57º 28.7 N Lon. 133º 53.5 W</td>
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</tbody>
</table>
The Brothers, SE 04-04

Center of map at 57° 17.6’ N Lat., 133° 50.6’ W Lon.

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Deflection Booming, Fixed
Open-water Boom

This is not intended for navigational use.

Soundings in fathoms
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>SE04-04-01</td>
<td>The Brother Islands&lt;br&gt;Nearshore waters in the&lt;br&gt;general area of:&lt;br&gt;Lat. 57º 17.6 N&lt;br&gt;Lon. 133º 50.6 W</td>
<td>Free-oil Recovery-&lt;br&gt;Shallow Water</td>
<td>Deploy free-oil recovery strike teams upwind and up-current of The Brother Islands depending on spill source and trajectory.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Kake</td>
<td>Via marine waters&lt;br&gt;Chart 17320</td>
<td>Same as SE04-04-02</td>
<td>Vessel masters should have local knowledge.</td>
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<td>Use aerial surveillance to locate incoming slicks.</td>
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<tr>
<td>SE04-04-02</td>
<td>The Brother Islands&lt;br&gt;Lat. 57º 16.17 N&lt;br&gt;Lon. 133º 52.48 W&lt;br&gt;The southern most island in&lt;br&gt;the Brother Island group. Approx. 3500 ft. southwest of the West Island</td>
<td>Exclusion</td>
<td>Exclude oil from entering identified areas around The Brother Islands. Transport equipment by vessel (class 2/3/4). Place protected water boom and anchors in a diamond shape around the island. Tend throughout the tide.</td>
<td>Equipment&lt;br&gt;9000 ft open water boom&lt;br&gt;20 ea. anchor systems (~40 Lbs.)&lt;br&gt;Vessels&lt;br&gt;3 ea. class 2&lt;br&gt;3 ea. class 3/4&lt;br&gt;2 ea. class 6&lt;br&gt;Personnel / Shift&lt;br&gt;25 ea. vessel crew&lt;br&gt;Tending Vessels&lt;br&gt;1 ea. class 3/4&lt;br&gt;1 ea. class 6&lt;br&gt;Personnel / shift&lt;br&gt;4 ea. vessel crew</td>
<td>Vessel platform</td>
<td>Via marine waters&lt;br&gt;Chart 17320</td>
<td>Marine mammals-&lt;br&gt;harbor seals, Steller sea lion haulout(&lt;500 yd. exclusion zone) &amp; rookery (1/4 to 1/2 mile exclusion zone)&lt;br&gt;Birds-seabirds, waterfowl, shorebirds (all year-round)&lt;br&gt;Human use- High recreational use (May-September)</td>
<td>Vessel masters should have local knowledge. Consider the use of live deflection booms if sea state is marginal. FOSC Historic Properties Specialist should INSPECT site prior to operations. See Figure G-3-8 for equipment locations. Tested: not yet</td>
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<tr>
<td>SE04-04-03</td>
<td>The Brother Islands&lt;br&gt;a. West Brother Island&lt;br&gt;Lat. 57º 17.07 N&lt;br&gt;Lon. 133º 52.23 W&lt;br&gt;b. East Brother Island&lt;br&gt;Lat. 57º 17.38 N&lt;br&gt;Lon. 133º 48.73 W</td>
<td>Deflection Fixed</td>
<td>Place boom and anchor system with fishing vessels and skiffs (class 3/4/6). Position boom at appropriate angle to deflect oil from The Brother Islands and set up for nearshore free-oil recovery. Boom Length&lt;br&gt;a. 5800 ft.&lt;br&gt;b. 3800 ft.</td>
<td>Deployment&lt;br&gt;Equipment&lt;br&gt;9600 ft. open-water boom&lt;br&gt;25 ea. anchor systems (~40 Lbs.)&lt;br&gt;Vessels, Personnel / Shift&lt;br&gt;Same as SE04-04-02&lt;br&gt;Tending&lt;br&gt;Same as SE04-04-02</td>
<td>Vessel platform</td>
<td>Via marine waters&lt;br&gt;Chart 17320</td>
<td>Same as SE04-04-02</td>
<td>Vessel masters should have local knowledge. Tested: not yet</td>
</tr>
</tbody>
</table>
Cannery Cove/Donkey Bay, SE 04-05

Center of map at 57° 19.5' N Lat., 134° 0.80' W Lon.

June 26, 2003

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Deflection Booming, Fixed
Protected-water Boom
Tidal-seal Boom
Bears in Area, Guards Needed

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<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE04-05-01</td>
<td>Cannery Cove/ Donkey Bay Nearshore waters in the general area of: a. Lat. 57º 20.2 N Lon. 134º 09.3 W b. Lat. 57º 10.2 N Lon. 134º 07.2 W c. Lat. 57º 16.6 N Lon. 134º 07.8 W</td>
<td>Free-oil Recovery-Shallow Water</td>
<td>Deploy free-oil recovery strike teams upwind and up-current of Cannery Cove, Donkey Bay, and the entrance to the West Arm of Pybus Bay. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Kake</td>
<td>Via marine waters Chart 17320</td>
<td>Same as SE04-05-02</td>
<td>Same as SE04-05-02</td>
</tr>
<tr>
<td>SE04-05-02</td>
<td>Donkey Bay a. Lat. 57º 20.2 N Lon. 134º 10.1 W b. Lat. 57º 19.9 N Lon. 134º 10.1 W</td>
<td>Exclusion Exclude oil from entering the streams and intertidal areas at the head of Donkey Bay. Transport equipment to the site with vessels (class 2/3/4) Use fishing vessels and skiffs (class 3/4/6) to set anchors and deploy 2400 ft of protected water and tidal-seal boom outside of the tidal flats of Donkey Bay.</td>
<td>Deployment Equipment 2400 ft. protected-water boom 12 ea. anchor systems (~40 lbs.) 8 ea. anchor stakes Vessels 2 ea. class 2 2 ea. class 3/4 2 ea. class 6 Personnel / shift 18 ea. vessel crew Tending Vessels 3 ea. class 3/4 2 ea. class 6</td>
<td>Vessel platform Via marine waters Chart 17320 Marine mammals-harbor seals Fish-intertidal salmon/trout spawning (coho, pink, chum, Dolly Varden) Birds-waterfowl and shorebird migration, molting, and winter concentrations Habitat-kelp and eelgrass beds Human use-high recreational use (May-Sept.), intensive commercial salmon fishing Terrestrial mammals-bears</td>
<td>Same as SE04-05-02 Same as SE04-05-02</td>
<td>Same as SE04-05-02</td>
<td>Tested: not yet</td>
<td></td>
</tr>
<tr>
<td>SE04-05-03</td>
<td>Cannery Cove a. Lat. 57º 18.4 N Lon. 134º 9.3 W b. Lat. 57º 18.3 N Lon. 134º 8.6 W</td>
<td>Exclusion Exclude oil from entering the streams and intertidal areas at the head of Cannery Cove. Use fishing vessels and skiffs (class 3/4/6) to set anchors and deploy protected water and tidal-seal boom outside of the tidal flats across the mouth of Cannery Cove.</td>
<td>Deployment Equipment 4800 ft. protected-water boom 24 ea. anchor systems (~40 lbs.) 8 ea. anchor stakes 4 ea. &gt; 50 ft section tidal-seal Vessels, Personnel, Tending Same as SE07-03-02</td>
<td>Vessel platform Via marine waters Chart 17320</td>
<td>Same as SE04-05-02</td>
<td>Same as SE04-05-02</td>
<td>Tested: not yet</td>
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</tr>
<tr>
<td>SE04-05-04</td>
<td>Entrance to Pybus Bay NW Arm a. Lat. 57º 19.0 N Lon. 134º 07.5 W b. Lat. 57º 10.4 N Lon. 134º 06.7 W</td>
<td>Deflection Deflect oil entering West Arm of Pybus Bay to nearshore free-oil strike team working in the channel</td>
<td>Use fishing vessels and skiffs (class 3/4/6) to set anchors and deploy 1200 ft of protected water boom. Place boom in two arrays on each side of the West Arm of Pybus Bay to maximize deflection for recovery. Tend throughout the tide.</td>
<td>Vessel platform Via marine waters Chart 17320</td>
<td>Same as SE04-05-02</td>
<td>Same as SE04-05-02</td>
<td>Tested: not yet</td>
<td></td>
</tr>
</tbody>
</table>

Vessel masters should have local knowledge. Bears in area. FOSC Historic Properties Specialist should INSPECT site prior to operations. See Figure G-3-8 for equipment locations.
Pybus Bay NW Arm, SE 04-06

Center of map at 57° 22.0’ N Lat., 134° 09.5’ W Lon.

Legend

- FO-S: Free-oil Containment and Recovery, Shallow Water
- EX: Exclusion Booming
- PR: Passive Recovery and Debris Removal

Protected-water Boom
Tidal-seal Boom
Snare Line

Geographic Response Strategies for Southeast Alaska Subarea

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<table>
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<th>Resources Protected</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE04-06-01</td>
<td>Pybus Bay NW Arm   Nearshore waters in the general area of: Lat. 57º 22.0 N Lon. 134º 09.3 W</td>
<td>Free-oil Recovery- Shallow Water</td>
<td>Deploy free-oil recovery strike teams upwind and up-current of the head of Pybus Bay. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Kake</td>
<td>Via marine waters.</td>
<td>Chart 17320</td>
<td>Vessel masters should have local knowledge.</td>
</tr>
<tr>
<td>SE04-06-02</td>
<td>West Arm of Pybus Bay a. Lat. 57º 22.4 N Lon. 134º 11.1 W b. Lat. 57º 23.3 N Lon. 134º 10.3 W</td>
<td>Exclusion</td>
<td>Transport equipment by marine vessel to the site (class 2/3/4). Deploy anchors and boom with fishing vessels or skiffs (class 3/4/6). Place boom (a) beyond the small island in the Arm and outside of the tidal flats. Boom Lengths: a. 6400 ft. b. 1200 ft.</td>
<td>Deployment Equipment 7600 ft. protected-water boom 78 ea. anchor systems (~40 lbs.) 4 ea. 50 ft. section tidal-seal 8 ea. anchor stakes Vessels 2 ea. class 2 2 ea. class 3/4 2 ea. class 6 Personnel / Shift 18 ea. vessel crew Tending Vessels 1 ea. class 3/4 2 ea. class 6 Personnel / shift 7 ea. vessel crew</td>
<td>Vessel platform</td>
<td>Via marine waters.</td>
<td>Chart 17320</td>
<td>Marine mammals- harbor seals Fish- intertidal salmon spawning (coho, pink, chum) Birds-waterfowl and shorebird migration, molting, and winter concentrations Habitat- kelp and eelgrass beds Human use-High recreational use (May-Sept.), intensive commercial fishing Terrestrial mammals- bears</td>
</tr>
<tr>
<td>SE04-06-03</td>
<td>Stream entering Pybus Bay in the area of: Lat. 57º 22.3 N Lon. 134º 11.1 W</td>
<td>Passive Recovery</td>
<td>Place snare line or sorbent boom across the tidal flats at the mouth of stream located on the west side of Pybus Bay, outside of SE04-06-02a.</td>
<td>Deployment Equipment 500 ft. snare line or sorbent boom 6 ea. anchor stakes Vessels, Personnel, Tending Same as SE07-03-02</td>
<td>Vessel platform</td>
<td>Via marine waters.</td>
<td>Chart 17320</td>
<td>Use snare line for persistent oils and sorbent boom for non-persistent oils.</td>
</tr>
</tbody>
</table>

Southeast Alaska Geographic Response Strategies
June 26, 2003
<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>SE04-07.01</td>
<td>Eliza Harbor</td>
<td>Free-oil Recovery</td>
<td>Deploy nearshore free-oil recovery strike teams. Use aerial surveillance to locate areas of heavy slick concentrations.</td>
<td>Two (or more) nearshore free-oil recovery strike teams to intercept oil before it impacts sensitive areas.</td>
<td>Angoon, Petersburg, and/or Juneau</td>
<td>Via marine waters</td>
<td>See SE04-07-02</td>
<td>Strong currents possible at the mouth of the harbor. Oil is likely to impact the shoreline in the vicinity of Lienesor Island.</td>
</tr>
<tr>
<td>SE04-07.02</td>
<td>Eliza Harbor</td>
<td>Exclusion</td>
<td>Protect mudflats and marsh using exclusion boom anchored to achieve a convex shape.</td>
<td>Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy boom and set anchors. Deploy 3600 ft of protected-water boom anchored to achieve convex shape.</td>
<td>See SE04-07-01</td>
<td>See SE04-07-01</td>
<td>Fish-intertidal salmon/trout spawning (pink, coho, chum, Dolly Varden) Birds-waterfowl and shorebirds (winter) Habitat-marsh, wetlands Terrestrial mammals-bears</td>
<td>Deploy boom at high tide to prevent further damage to mudflats and marsh. Bears in area. FOSC Historic Properties Specialist should INSPECT site prior to operations. See Figure G-3-8 for equipment locations. Tested: not yet.</td>
</tr>
<tr>
<td>SE04-07.03</td>
<td>Eliza Harbor</td>
<td>Deflection</td>
<td>Deflect oil away from sensitive area to allow free-oil recovery.</td>
<td>Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy boom and set anchors. Deploy protected-water boom.</td>
<td>See SE04-07-01</td>
<td>See SE04-07-01</td>
<td>See SE04-07-01 See SE04-07-01</td>
<td>Deploy boom at high tide to prevent further damage to mudflats and marsh.</td>
</tr>
<tr>
<td>SE04-07.04</td>
<td>Eliza Harbor</td>
<td>Passive Recovery</td>
<td>Minimize impact to intertidal mudflats and marsh through passive recovery using snare line or sorbent boom.</td>
<td>Place up to 5400 ft of snare line or sorbent boom across mudflats and marsh. Anchor with stakes. Replace oiled sections as needed. Use snare line for persistent oils and sorbent boom for non-persistent.</td>
<td>See SE04-07-01</td>
<td>See SE04-07-01</td>
<td>See SE04-07-01 See SE04-07-01</td>
<td>Deploy boom at high tide to prevent further damage to mudflats and marsh.</td>
</tr>
</tbody>
</table>
E. SOUTHEAST ALASKA RESPONSE ZONE 5

Figure G-3-9 provides an overview of the Southeast Alaska response zone 5, identifying the location of each GRS site. Each GRS site has been assigned an identifying number, which has no relevance to the site's protection priority. This section contains geographic response strategies for each numbered site, in numerical order, beginning with SE05-01. Figure G-3-10 shows the location of oil spill response equipment throughout zone 5.

![Southeast Alaska Response Zone 5](image)

Figure G-3-9. Southeast Alaska Response Zone 5.

![Southeast Alaska Response Equipment Locator Map](image)

Figure G-3-10. Southeast Alaska Response Equipment Locator Map.
Mitchell Bay/Angoon, SE 05-01

Legend

Free-oil Containment and Recovery, Shallow Water
Deflection Booming
Diversion Booming
Protected-water Boom
Shoreside Recovery
Staging Area

SE05-01-02 Looking south at Angoon and Favorite Bay.

SE05-01-03 Looking east at Kootznahoo Inlet.

SE05-01-01 Danger Point and Mitchell Bay Entrance looking south.

Legend

Free-oil Containment and Recovery, Shallow Water
Deflection Booming
Diversion Booming
Protected-water Boom
Shoreside Recovery
Staging Area

Kootznahoo Inlet
FavoriteBay
MITCHELL BAY
Angoon
Sullivan Point

Geographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.

Soundings in fathoms

Center of map at 57° 30.4' N Lat., 134° 36.6' W Lon.

Mitchell Bay/Angoon, SE 05-01

Free-oil Containment and Recovery, Shallow Water
Deflection Booming
Diversion Booming
Protected-water Boom
Shoreside Recovery
Staging Area

Kootznahoo Inlet
FavoriteBay
MITCHELL BAY
Angoon
Sullivan Point

Geographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.

Soundings in fathoms

Center of map at 57° 30.4' N Lat., 134° 36.6' W Lon.
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</thead>
<tbody>
<tr>
<td>SE05-01-01</td>
<td>Mitchell Bay/Angoon Nearshore waters in the general area of: Lat. 57° 31.3 N Long. 134° 36.6 W</td>
<td>Free-oil Recovery</td>
<td>Deploy nearshore free-oil recovery strike teams upwind and up current of Turning Point Channel. Use aerial surveillance to locate incoming slicks. Deploy shallow water skimmer and booms in shallow water of Mitchell Bay.</td>
<td>Multiple nearshore free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Angoon/vessel platform</td>
<td>Via marine waters</td>
<td>Same as for SE05-01-02</td>
<td>Local knowledge needed for strength of current and natural recovery points.</td>
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<tr>
<td>SE05-01-02</td>
<td>Angoon a. Lat. 57° 30.2 N Lon. 134° 35.0 W b. Lat. 57° 29.8 N Lon. 134° 34.3 W</td>
<td>Diversion</td>
<td>Use class 2 and class 3/4 vessels with deck space to transport equipment and crane to set lg. anchors, class 6 setnet or seine skiffs to deploy boom and anchors. Place 1600 ft. of open-water boom in a cascade array. Deploy anchoring system in tandem due to high currents.</td>
<td>Deployment Equipment: 1600 ft. open-water boom 10 ea. anchor systems (-40 lbs.) 2 anchor stakes Vessels: 3 ea. class 2 2 ea. class 3/4 2 ea. class 6 Personnel/Shift: 22 ea. vessel crew Tending Vessels: 1 ea. class 3/4 with crane 2 ea. class 6</td>
<td>Angoon/vessel platform</td>
<td>Via marine waters</td>
<td>Marine mammals: harbor seal rookeries and haulouts, humpback whales, sea otters Fish: intertidal salmon/troll spawning (coho, pink, chum, steelhead, Dolly Varden, cutthroat) Birds: waterfowl and shorebird concentration (winter) Habitat: High intertidal diversity Human use: high subsistence use (salmon harvest), high recreational use</td>
<td>Consider permanent anchor systems. FOSC Historic Properties Specialist should MONITOR on-site operations. See Figure G-3-10 for equipment locations. Boom must be tended continuously due to strong tides. Tested: not yet Surveyed: 10/03/02 SEAPRO</td>
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<tr>
<td>SE05-01-03</td>
<td>Turn Point/Channel Point a. Lat. 57° 30.4 N Lon. 134° 34.8 W b. Lat. 57° 30.2 N Lon. 134° 34.3 W c. Lat. 57° 30.5 N Lon. 134° 34.5 W d. Lat. 57° 30.5 N Lon. 134° 34.9 W</td>
<td>Deflection</td>
<td>Place 2000 ft. of protected-water boom in four 500 ft. boom strings as shown.</td>
<td>Deployment Equipment: 2000 ft. protected-water boom 8 ea. anchor systems (-40 lbs.) 4 anchor stakes Vessels/Personnel/Tending: Same as SE05-01-02</td>
<td>Angoon/vessel platform</td>
<td>Via marine waters</td>
<td>Same as for SE05-01-02</td>
<td>Boom strings should be anchored every 250 ft. due to strong tidal currents. Tested: not yet Surveyed: 10/03/02 SEAPRO</td>
</tr>
</tbody>
</table>
Sandy Cove, SE 05-02

Center of map at 59° 59.0’ N Lat., 135° 22.4’ W Lon.

Legend

- **FO-S**: Free-oil Containment and Recovery, Shallow Water
- **EX**: Exclusion Booming
- **DF**: Deflection Booming
- **Protected-water Boom**
- **Tidal-seal Boom**
- **Marine Recovery**

Note: This is not intended for navigational use.

SE 05-02 Sandy Cove looking towards the south.

SE 05-02 Sandy Cove looking towards the southeast.

June 26, 2003

Free-oil Containment and Recovery, Shallow Water

Exclusion Booming

Deflection Booming

Marine Recovery

Scale

1 nm
1 mi.
1,000 yds.

This is not intended for navigational use.

Soundings in fathoms
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE05-02-01</td>
<td>Sandy Cove</td>
<td>Free-oil Recovery</td>
<td>Deploy nearshore free-oil recovery strike teams upwind and up current of Sandy Cove. Use aerial surveillance to locate incoming slicks. If winds and chop adverse, deploy skimmers within cove.</td>
<td>Multiple nearshore free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Sitkalidak Island platform</td>
<td>Via marine waters</td>
<td>Fish-Intertidal salmon spawning (pink, chum, coho)</td>
<td>Vessel master should have local knowledge</td>
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<tr>
<td>SE05-02-02</td>
<td>Sandy Cove</td>
<td>Exclusion</td>
<td>Use class 2 and class 3/4 vessels with deck space to transport equipment, class 6 skiff or seine skiffs to set boom and anchors. Place 1200 ft. of protected-water boom, in a chevron pattern, across large head of Sandy Cove and 500 ft. across each small entrance, with tidal-seal on each end, to exclude oil from entering Sandy Cove. Under ideal conditions, oil may be recovered by manual recovery at small cove east of EX 02a chevron.</td>
<td>Deployment: Equipment 2200 ft. protected-water boom 8 ea. anchor systems (~40 lbs.) 6 ea. 50 ft. tidal-seal 6 ea. anchor stakes Vessels: 3 ea. class 3/4 2 ea. class 6 Personnel / Shift: 14 ea. vessel crew Tending: Vessels: 1 ea. class 3/4 2 ea. class 6 Personnel / Shift: 5 ea. vessel crew</td>
<td>Sitkalidak Island platform</td>
<td>Via marine waters</td>
<td>Same as SE05-02-01</td>
<td>FOSC Historic Properties Specialist should inspect site prior to operations. See Figure G-3-10 for equipment locations. Tested: 3/5/03 SEAPRO Surveyed: 3/5/03 SEAPRO, ADEC, TLR</td>
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<tr>
<td>SE05-02-03</td>
<td>Sandy Cove</td>
<td>Deflection</td>
<td>Place 400 ft. protected-water boom between islet and promontory.</td>
<td>Deployment: Equipment 400 ft. protected-water boom 2 ea. anchor stakes 2 ea. anchor systems (~40 lbs.) Vessels / Personnel / Tending</td>
<td>Sitkalidak Island platform</td>
<td>Via marine waters</td>
<td>Same as SE05-02-01</td>
<td>Tested: 3/5/03 SEAPRO Surveyed: 3/5/03 SEAPRO, ADEC, TLR</td>
</tr>
</tbody>
</table>
Pirate Cove, SE 05-03

Legend

- FO-S: Free-oil Containment and Recovery, Shallow Water
- EX: Exclusion Boom
- Protected-water Boom
- Tidal-seal Boom
- Marine Recovery

June 26, 2003

Free-oil Containment and Recovery, Shallow Water
Exclusion Boom
Protected-water Boom
Tidal-seal Boom
Marine Recovery

Geographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.

Soundings in fathoms

Free-oil Containment and Recovery, Shallow Water
Exclusion Boom
Protected-water Boom
Tidal-seal Boom
Marine Recovery

Scale

1,000 yds.
1 nm
1 mi.
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<thead>
<tr>
<th>ID</th>
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<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected</th>
<th>Special Considerations</th>
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</thead>
</table>
| SE05-03-01 | **Pirate Cove** | Nearshore waters in the general area of:  
  a. Lat. 56º 59.3 N  
  Lon. 135º 22.7 W  
  b. Lat. 56º 59.2 N  
  Lon. 135º 22.8 W  | **Free-oil Recovery**  
  Maximize free-oil recovery in the offshore & nearshore environment at the mouth of Pirate Cove and west of Pirate Cove. |  
  Deploy nearshore free-oil recovery strike teams upwind and up current of Pirate Cove. 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. | Sitka Harbor/Vessel platform | Via marine waters | -  
  Resources Protected  
  (months)  
  Special Considerations  
  Vessel masters should have local knowledge | -  
  Fish-hunting spawning  
  Habitat-kelp and eelgrass beds, sheltered tidal flats, sheltered rocky shore, high intertidal diversity  
  Human use-High recreational use | -  
  Tested: 3/5/03 SEAPRO  
  Surveyed: 3/5/03 SEAPRO, ADEC, TLR |
| SE05-03-02 | **Pirate Cove - Mouth** | a. Lat. 56º 59.2 N  
  Lon. 135º 22.7 W  
  b. Lat. 56º 59.2 N  
  Lon. 135º 22.3 W  
  c. Lat. 56º 55.2 N  
  Lon. 135º 22.8 W  | **Exclusion**  
  Exclude oil from entering head of Pirate Cove. |  
  Use class 3/4 vessels with deck space to transport equipment, class 6 salinet or saline skiffs to deploy boom and set anchors. Place 1150 ft. of protected-water boom to exclude oil from entering head of Pirate Cove.  
  Boom Lengths:  
  a. 150 ft. (tidal-seal)  
  b. 500 ft.  
  c. 500 ft.  
  Place marine recovery unit on skimmer at apex of EX 02b and EX 02c. | Deployment:  
  Equipment:  
  1150 ft. protected-water boom  
  2 ea. anchor systems (~40 lbs.)  
  2 ea. 50 ft. tidal-seal  
  6 ea. anchor stakes  
  Vessels:  
  2 ea. class 3/4  
  2 ea. class 6  
  Personnel / Shift:  
  10 ea. vessel crew  
  Tending:  
  Vessels:  
  2 ea. class 3/4  
  2 ea. class 6  
  Personnel / Shift:  
  5 ea. vessel crew | Sitka Harbor/Vessel platform | Via marine waters | -  
  Same as SE05-03-01  
  REPORT any cultural resources found during operations to FOSC Historic Properties Specialist  
  See Figure G-3-10 for equipment locations  
  Tested: 3/5/03 SEAPRO  
  Surveyed: 3/5/03 SEAPRO, ADEC, TLR | -  
  Fish-hunting spawning  
  Habitat-kelp and eelgrass beds, sheltered tidal flats, sheltered rocky shore, high intertidal diversity  
  Human use-High recreational use |
Cosmos Cove, SE 05-04

Center of map at 57° 14.7' N Lat., 134° 51.7' W Lon.

Legend

FO-S Free-oil Containment and Recovery, Shallow Water
DF Deflection Booming, Fixed
DV Diversion Booming
PR Passive Recovery and Debris Removal
Protected-water Boom
Snare Line
Marine Recovery

SE05-04 Looking west into Cosmos Cove.
SE05-04-04 Looking west at head of Cosmos Cove.
SE05-04-02a Looking west into Cosmos Cove.

Geographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.

Soundings in fathoms
<table>
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<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
</table>
| SE05-04-01 | Cosmos Cove  
Nearshore waters in the general area of:  
Lat. 57º 14.7 N  
Lon. 134º 50.8 W | Free-oil Recovery: Shallow Water  
Maximize free-oil recovery in the offshore & nearshore environment in the entrance to Cosmos Cove. | Deploy free-oil recovery strike teams at the entrance to Cosmos Cove.  
Use aerial surveillance to locate incoming slicks. | Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas. | Kake or Angoon  
Via marine waters  
Chart 17337 | Same as SE05-04-02 | Vessel master should have local knowledge. |
| SE05-04-02 | Cosmos Cove  
Lat. 57º 14.8 N  
Lon. 134º 50.8 W  
Lat. 57º 14.3 N  
Lon. 134º 50.4 W | Deflection  
Deflect oil away from Cosmos Cove. | Use vessels with deck space to transport equipment to the site (class 2/3/4).  
Deploy boom and set anchors with fishing vessels and skiffs (class 3/4/6).  
Place cascaded arrays (200-400 ft.) of protected-water boom at the northern and southern entrances to Cosmos Cove to deflect oil away from the islands and to the free-oil strike team.  
Tend throughout the tide.  
**Boom Lengths:**  
a. 2600 ft.  
b. 800 ft. | Deployment  
**Equipment:**  
3400 ft. protected-water boom  
4 ea. anchor stakes  
36 ea. anchor systems (~40 lbs.)  
**Vessels:**  
1 ea. class 2  
2 ea. class 3/4  
2 ea. class 6  
**Personnel / Shift:**  
14 ea. vessel crew  
Tending  
**Vessels:**  
1 ea. class 3/4  
2 ea. class 6  
7 ea. vessel crew | Vessel platform  
Via marine waters  
Chart 17337 | Fish-intertidal salmon spawning (coho, pink, chum)  
Birds-waterfowl, shorebirds (winter, low density)  
Habitat-kelp/eelgrass beds  
Human use-High recreational use (May-Sept.) | Vessel master should have local knowledge.  
FOSC Historic Properties Specialist should MONITOR on-site operations.  
See Figure G:3-10 for equipment locations.  
Tested: not yet |
| SE05-04-03 | Cosmos Cove  
Lat. 57º 14.52 N  
Lon. 134º 52.63 W | Divert / Recover  
Divert oil entering Cosmos Cove to marine recovery. | Deploy anchors and boom with skiffs and fishing vessels (class 3/4/6).  
Place 2900 ft. of protected-water boom in a chevron pattern in Cosmos Cove.  
Establish marine recovery unit at the apex of the boom.  
Tend throughout the tide. | Deployment  
**Equipment:**  
2900 ft. protected-water boom  
31 ea. anchor systems (~70 lbs.)  
**Vessels:**  
1 ea. marine recovery unit  
**Personnel, Tending:**  
Same as SE05-04-02 | Vessel platform  
Via marine waters  
Chart 17337 | Same as SE05-04-02 | Vessel master should have local knowledge.  
Tested: not yet |
| SE05-04-04 | Head of Cosmos Cove  
Lat. 57º 14.4 N  
Lon. 134º 53.1 W | Passive Recovery  
Minimize impact to designated area through passive recovery using snare line or sorbent boom. | Place and anchor snare line or sorbent boom across the tidal flats at the head of Cosmos Cove. | Deployment  
**Equipment:**  
1800 ft. snare line or sorbent boom  
20 ea. anchor stakes  
**Vessels, Personnel, Tending:**  
Same as SE05-04-02 | Vessel platform  
Via marine waters  
Chart 17337 | Same as SE05-04-02 | Use snare line for persistent oils and sorbent boom for non-persistent oils. |
Indian River, SE 05-05

Legend

- Free-oil Containment and Recovery, Shallow Water
- Exclusion Booming
- Diversion Booming
- Shoreside Recovery
- Protected-water Boom
- Staging Area
- Boat Launch
- ATV Trail

Center of map at 59° 38.2' N Lat., 151° 31.1' W Lon.

Indian River, SE05-05-03 Indian River looking towards the west.

Indian River, SE05-05-02 Indian River looking towards the northwest.

Geographic Response Strategies for Southeast Alaska Subarea

Soundings in fathoms

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<th>Special Considerations</th>
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<tbody>
<tr>
<td>SE05-05-01</td>
<td>Indian River</td>
<td>Nearshore waters in the general area of:</td>
<td>Free-oil Recovery - Shallow Water</td>
<td>Deploy free-oil recovery strike teams upwind and up current of Indian River. Use</td>
<td>Sitka Harbor</td>
<td>Road access</td>
<td>Same as SE05-05-02</td>
<td>Vessel master should have local knowledge. FOSC Historic Properties: Should Monitor on-site operations. See Figure G-3-10 for equipment locations.</td>
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<td>a. Lat. 57º 02.5 N Lon. 134º 18.7 W</td>
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<td>aerial surveillance to locate incoming slicks.</td>
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<td>Chart 17327</td>
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<td>b. Lat. 57º 02.6 N Lon. 134º 18.3 W</td>
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<td>Multiple free-oil recovery strike teams as required to maximize interception of</td>
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<td>oil before it impacts sensitive areas.</td>
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<td>SE05-05-02</td>
<td>Indian River</td>
<td>a. Lat. 57º 02.7 N Lon. 134º 18.6 W</td>
<td>Exclusion</td>
<td>Transport equipment by road or by vessel (class 3/4) from Sitka. Use skiffs (class</td>
<td>Sitka</td>
<td>Road access</td>
<td>Chart 17327</td>
<td>Vessel master should have local knowledge. Exclusion strategy is first line of defense. The divert and recovery strategy is the second line of defense to be used if exclusion fails. Tested: not yet Surveyed: 8/26/02 TLR</td>
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<td>b. Lat. 57º 02.8 N Lon. 134º 18.7 W</td>
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<td>6) to deploy boom and set anchors. Place 900 ft of protected-water boom across</td>
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<td>the mouth of Indian River. Tend throughout tide.</td>
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<td>SE05-05-03</td>
<td>Indian River</td>
<td>Lat. 57º 02.8 N Lon. 134º 18.58 W</td>
<td>Divert and Recover</td>
<td>Deploy anchors and boom with skiffs (class 6). Place protected-water boom at the</td>
<td>Sitka</td>
<td>Road access</td>
<td>Same as SE05-05-02</td>
<td>Vessel master should have local knowledge. Tested: not yet Surveyed: 8/26/02 TLR</td>
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<td>proper angle to divert oil to recovery site. Set up recovery unit and tend through-</td>
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<td>900 ft. protected-water boom</td>
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<td>Response Strategy</td>
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<td>Staging Area</td>
<td>Site Access</td>
<td>Resources Protected (months)</td>
<td>Special Considerations</td>
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<tr>
<td>SE05-06-01</td>
<td>Kadashan Bay Nearshore waters in the general area of: Lat. 57º 44.5 N Lon. 135º 13.1 W</td>
<td>Free-oil Recovery- Shallow Water</td>
<td>Deploy free-oil recovery strike teams upwind and up current of Kadashan Bay. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Juneau Auke Bay,</td>
<td>V/marine waters</td>
<td>Same as SE05-06-02</td>
<td>Vessel master should have local knowledge.</td>
</tr>
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<td>Response Strategy</td>
<td>Implementation</td>
<td>Response Resources</td>
<td>Staging Area</td>
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<td>Special Considerations</td>
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<tr>
<td>SE05-06-02</td>
<td>Kadashan Bay a. Lat. 57º 44.420 N Lon. 135º 10.46W</td>
<td>Deflection-Fixed Deflect oil away from Kadashan Bay</td>
<td>Transport equipment to the site with marine vessels (class 2/3/4). Use fishing vessels and drifts (class 3/4/6) to deploy anchors and protected water boom. Place 6400 ft. of protected water boom in five sections. Establish angle to deflect the oil into Tenakee Inlet for free-oil recovery. Tend throughout the tide.</td>
<td>Deployment Equipment 6400 ft. protected water boom 32 ea. anchor systems (~40 lbs.) 10 anchor stakes Vessels 2 ea. class 2 2 ea. class 3/4 2 ea. class 6 Personnel / Shift 18 ea. vessel crew Tending Vessels 1 ea. class 3/4 2 ea. class 6 Personnel / Shift 5 ea. vessel crew</td>
<td>Vessel platform Corner Bay may be suitable staging area.</td>
<td>V/marine waters</td>
<td>Fish-intertidal salmon/trout spawning (coho, pink, chum, steelhead, Dolly Varden) Birds-waterfowl, shorebirds (winter) Habitat tidal flats, marsh Terrestrial mammals-bears</td>
<td>Vessel master should have local knowledge. Bears in area. FOSC Historic Properties Specialist should MONITOR on-site operations. Title 41 permit may be necessary. Contact ADNR. Tested: not yet</td>
</tr>
</tbody>
</table>
Kelp Bay, SE 05-07

Center of map at 57° 20.6’ N Lat., 135° 00.4’ W Lon.

This is not intended for navigational use.

Legend

- **Free-oil Containment and Recovery, Shallow Water**
- **Deflection Booming, Fixed**
- **Exclusion Booming**
- **Protected-water Boom**
- **Tidal-seal Boom**
- **Bears in Area, Guards Needed**

Map

- **FO-S**
- **DF**
- **EX**

Baranof Island

Kelp Bay

Middle Arm

Soundings in fathoms

June 26, 2003
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE05-07-01</td>
<td>Kelp Bay Middle Arm Nearshore waters in the general area of: Lat. 57º 20.0 N Lon. 134º 58.1 W</td>
<td>Free-oil Recovery-Shallow Water</td>
<td>Deploy free-oil recovery strike teams upwind and up current of cove and head of Middle Arm. Use aerial surveillance to locate incoming slicks. Multipl...</td>
<td>Deploy free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Angoon, Hoonah, Juneau</td>
<td>Via marine waters. Chart 17337B</td>
<td>Same as SE05-07-02</td>
<td>Vessel master should have local knowledge.</td>
</tr>
<tr>
<td>SE05-07-02</td>
<td>Kelp Bay Middle Arm a. Lat. 57º 20.1 N Lon. 135º 00.3 W b. Lat. 57º 20.5 N Lon. 135º 04.0 W</td>
<td>Exclusion</td>
<td>Exclude oil from cove in Middle Arm and at the head of Middle Arm. Use fishing vessels and skiffs (class 3/4/6) to deploy boom and set anchors. Place protected water and tidal-seal boom in two arrays immediately outside the tidal flats of the two rivers entering the Middle Arm of Kelp Bay. Tend throughout tide.</td>
<td>Use vessels with deck space to transport equipment to the site (class 2/3).Use fishing vessels and skiffs (class 3/4/6) to deploy boom and set anchors. Place protected water and tidal-seal boom in two arrays immediately outside the tidal flats of the two rivers entering the Middle Arm of Kelp Bay. Tend throughout tide.</td>
<td>Vessel platform</td>
<td>Via marine waters. Chart 17337B</td>
<td>Fish-inter tidal salmon spawning (coho, pink, chum) Birds-waterfowl concentrations ~170 (low count) Habitat-marsh, eel grass, sheltered tidal flats, sheltered rocky shoreline Human use-high recreational use (May-Sept.) Terrestrial mammals-bears</td>
<td>Vessel master should have local knowledge. REPORT any cultural resources found during operations to FOSC Historic Properties Specialist. See Figure G-3-10 for equipment locations. Title 41 permit may be necessary. Contact ADNR. Tested: not yet</td>
</tr>
<tr>
<td>SE05-07-03</td>
<td>Kelp Bay Middle Arm Lat. 57º 20.0 N Lon. 134º 58.2 W</td>
<td>Deflection</td>
<td>Deflect oil entering Middle Arm to free-oil strike teams in channel. Use fishing vessels and skiffs (class 3/4/6) to deploy boom and set anchors. Place protected water boom at or near the identified position at appropriate angle to maximize deflection for recovery.</td>
<td>Use fishing vessels and skiffs (class 3/4/6) to deploy boom and set anchors. Place protected water boom at or near the identified position at appropriate angle to maximize deflection for recovery.</td>
<td>Vessel platform</td>
<td>Via marine waters. Chart 17337B</td>
<td>Same as SE05-07-02</td>
<td>Vessel master should have local knowledge. Bears Tested: not yet</td>
</tr>
</tbody>
</table>
Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Deflection Booming, Live
Passive Recovery and Debris Removal
Protected-water Boom
Tidal-seal Boom
Snare Line
Bears in Area, Guards Needed

This is not intended for navigational use.

Center of map at 57° 26' N Lat., 135° 34' W Lon.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
</table>
| SE05-08-01 | Baby Bear Marine Park  
Lat. 57º 26N  
Lon. 135º 34 W (approximate location) | Free-oil Recovery  
Maximize recovery of oil in Peril Strait in the vicinity of Baby Bear Marine Park. | Deploy nearshore free-oil recovery strike teams. Use aerial surveillance to locate areas of heavy slick concentrations. | Two or more nearshore free-oil recovery strike teams to intercept oil before it impacts sensitive areas. | Sitka  
Angoon | Via marine waters  
Note: Bear hazard along shoreline | Marine mammals-harbor seals  
Fish-intertidal salmon spawning (coho, chum, pink)  
Birds-waterfowl, shorebirds (winter, low density)  
Habitat-habitat, intertidal mudflats, intertidal rocky shore, high intertidal diversity  
Human use-high recreational use  
Land management-State Marine Park  
Terrestrial mammals-bears | Bear hazard. FOSC Historic Properties Specialist should MONITOR on-site operations.  
See Figure G-3-10 for equipment locations. |
| SE05-08-02 | Baby Bear Marine Park  
a. Lat. 57º 26.3 N  
Lon. 135º 34.4 W  
b. Lat. 57º 25.6 N  
Lon. 135º 34.5 W  
c. Lat. 57º 25.2 N  
Lon. 135º 35.2 W | Deflection  
Deflect oil entering Bear Bay. | Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy boom and set anchors. Place total of 1900 ft of boom to deflect oil. | Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy boom and set anchors. Place total of 1900 ft of boom to deflect oil. | Sitka  
Angoon | Via marine waters  
Note: Bear hazard along shoreline | Marine mammals-harbor seals  
Fish-intertidal salmon spawning (coho, chum, pink)  
Birds-waterfowl, shorebirds (winter, low density)  
Habitat-habitat, intertidal mudflats, intertidal rocky shore, high intertidal diversity  
Human use-high recreational use  
Land management-State Marine Park  
Terrestrial mammals-bears | Bear hazard. FOSC Historic Properties Specialist should MONITOR on-site operations.  
See Figure G-3-10 for equipment locations. |
| SE05-08-03 | Baby Bear Marine Park  
a. Lat. 57º 26.08N  
Lon. 135º 33.9 W  
b. Lat. 57º 25.8 N  
Lon. 135º 34.3 W  
c. Lat. 57º 25.2 N  
Lon. 135º 34.2 W  
d. Lat. 57º 25.1 N  
Lon. 135º 34.2 W | Exclusion  
Protect sensitive areas in Bear Bay and Baby Bear Bay. | Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy boom and set anchors. Deploy 5000 ft of protected-water boom. | Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy boom and set anchors. Deploy 5000 ft of protected-water boom. | Sitka  
Angoon | Via marine waters  
Note: Bear hazard along shoreline | Marine mammals-harbor seals  
Fish-intertidal salmon spawning (coho, chum, pink)  
Birds-waterfowl, shorebirds (winter, low density)  
Habitat-habitat, intertidal mudflats, intertidal rocky shore, high intertidal diversity  
Human use-high recreational use  
Land management-State Marine Park  
Terrestrial mammals-bears | Bear hazard. FOSC Historic Properties Specialist should MONITOR on-site operations.  
See Figure G-3-10 for equipment locations. |
| SE05-08-04 | Baby Bear Marine Park  
a. Lat. 57º 26.14N  
Lon. 135º 33.9 W  
b. Lat. 57º 26 N  
Lon. 135º 34.0 W  
c. Lat. 57º 25.6 N  
Lon. 135º 34.3 W  
d. Lat. 57º 25.1 N  
Lon. 135º 34.2 W | Passive Recovery  
Minimize impact to intertidal mudflats and marsh through passive recovery using snare line or sorbent boom. Anchor with stakes. Replace oiled sections as needed. Use snare line for persistent oils and sorbent boom for non-persistent. | Place up to 1700 ft of snare line or sorbent boom across mudflats and marsh. Anchor with stakes. Replace oiled sections as needed. Use snare line for persistent oils and sorbent boom for non-persistent. | Place up to 1700 ft of snare line or sorbent boom across mudflats and marsh. Anchor with stakes. Replace oiled sections as needed. Use snare line for persistent oils and sorbent boom for non-persistent. | Sitka  
Angoon | Via marine waters  
Note: Bear hazard along shoreline | Marine mammals-harbor seals  
Fish-intertidal salmon spawning (coho, chum, pink)  
Birds-waterfowl, shorebirds (winter, low density)  
Habitat-habitat, intertidal mudflats, intertidal rocky shore, high intertidal diversity  
Human use-high recreational use  
Land management-State Marine Park  
Terrestrial mammals-bears | Bear hazard. FOSC Historic Properties Specialist should MONITOR on-site operations.  
See Figure G-3-10 for equipment locations. |
Chaik Bay, SE 05-09

Center of map at 57° 20' N Lat., 134° 31' W Lon.

Soundings in fathoms

SE05-09-02a,b,c looking northeast into the north arm of Chaik Bay.

Legend

- **FO-S**: Free-oil Containment and Recovery, Shallow Water
- **EX**: Exclusion Booming
- **DV**: Diversion Booming
- **PR**: Passive Recovery and Debris Removal
- **MR**: Tidal-seal Boom
- **DV 02d**: Diversion Booming 02d
- **EX 03a**: Exclusion Booming 03a
- **DV 02e**: Diversion Booming 02e
- **PR 04**: Passive Recovery and Debris Removal 04

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Passive Recovery and Debris Removal
Protected-water Boom
Tidal-seal Boom
Snare Line
Marine Recovery
Bears in Area, Guards Needed

Vector lines represent 1 nm, 1 mi., or 1,000 yds.

SE05-09 South arm of Chaik Bay looking west at tactics 02a,e, 03a,b and 04.

This is not intended for navigational use.

SOUNDINGS IN FATHOMS

Admiralty Island

Village Pt.
<table>
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<tr>
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<th>Resources Protected</th>
<th>Special Considerations</th>
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<tbody>
<tr>
<td>SE05-09-01</td>
<td>Chaik Bay (Northeast Arm) Lat. 57º 20 N Lon. 134º 31 W</td>
<td>Free-oil Recovery</td>
<td>Maximize recovery of oil in vicinity of northeast arm. Deploy nearshore free-oil recovery strike teams at the mouth of the arm and inside the arm as a backup to diversion/recovery booms. Multiple nearshore free-oil recovery strike teams to intercept oil before it impacts sensitive areas.</td>
<td>Aroon</td>
<td>Via marine waters</td>
<td>Fish-Intertidal salmon/trout spawning (coho, pink, chum, Dolly Varden) Birds-waterfowl (winter) Habitat-marsh, sheltered tidal flats Human use-subsistence (fishing)</td>
<td>FOSC Historic Properties Specialist should MONITOR on-site operations. See Figure G-3-10 for equipment locations. Bears in area. Tested: not yet</td>
<td></td>
</tr>
<tr>
<td>SE05-09-02</td>
<td>Chaik Bay Lat. 57º 20.2 N Lon. 134º 32.1 W</td>
<td>Diversion/Recovery</td>
<td>Divert oil to marine recovery. Note: If shoreline is suitable, may divert to shore for manual clean-up. Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy boom and set anchors. Place boom at locations a - e to divert oil to shore (or near shore depending on tide) to marine recovery. 5 marine recovery or shoreside recovery units. Boom Arrays: a. 600 ft b. 400 ft c. 600 ft d. 800 ft e. 600 ft</td>
<td>Deployment Equipment 3000 ft protected-water boom. 8 ea ~40 lbs anchor systems for securing each 500 ft array at 3 points. 5 ea 50 ft tidal-seal boom units. 5 ea. anchor stakes Marine Recovery Units 3 ea shallow water recovery Vessels 2 ea. class 2 or 3/4 2 ea. class 6 Personnel Shift 12 ea vessel crew Tending Vessels 1 ea. class 3/4 2 ea. class 6 Personnel/Shift 6 ea vessel crew</td>
<td>Same as SE05-09-01</td>
<td>Same as SE05-09-01</td>
<td>Same as SE05-09-01 Bears Tested: not yet</td>
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<tr>
<td>SE05-09-03</td>
<td>Chaik Bay (Southeast Arm) Lat. 57º 19.5 N Lon. 134º 29.8 W</td>
<td>Exclusion</td>
<td>Protect tidal mudflats and intertidal reefs using exclusion boom. Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy protected-water boom between islets and main shoreline. Boom Arrays: a. 3000 ft b. 1500 ft</td>
<td>Deployment Equipment 4500 ft protected-water boom. 6 ea ~40 lbs anchor systems for securing boom at mid-points. 10 ea. 50 ft tidal-seal boom units. 10 ea. anchor stakes.Vessel/Personnel/Tending See SE05-09-02</td>
<td>Same as SE05-09-01</td>
<td>Same as SE05-09-01</td>
<td>Same as SE05-09-01 Bears Deploy boom at high tide to avoid driving oil into the substrate. Tested: not yet</td>
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<tr>
<td>SE05-09-04</td>
<td>Chaik Bay (Southeast Arm) Lat. 57º 19.5 N Lon. 134º 29.8 W</td>
<td>Passive Recovery</td>
<td>Protect sensitive marshes at head of SE arm of bay using passive recovery snare line or sorbent boom to back-up exclusion boom (SE05-09-03b). Place up to 1500 ft. of snare line or sorbent boom across mudflats and marsh. Anchor with stakes. Replace oiled sections as needed. Use snare line for persistent oils and sorbent boom for non-persistent.</td>
<td>Deployment Equipment 1500 ft. snare line or sorbent boom 15 ea. anchor stakes 1500 ft. of line</td>
<td>Same as SE05-09-01</td>
<td>Same as SE05-09-01</td>
<td>Same as SE05-09-01 Bears Tested: not yet</td>
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</tbody>
</table>
Crab Bay, SE 05-10

Center of map at 57° 44.4' N Lat., 135° 20' W Lon.

Legend

- **FO-S**: Free-oil Containment and Recovery, Shallow Water
- **EX**: Exclusion Booming
- **PR**: Passive Recovery and Debris Removal
- **DV**: Diversion Booming

- Protected-water Boom
- Tidal-seal Boom
- Snare Line
- Shoreside Recovery, Marine Access
- Bears in Area, Guards Needed

Geographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.

Soundings in fathoms

June 26, 2003

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Passive Recovery and Debris Removal
Diversion Booming

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SE05-10 Crab Bay looking towards the south.

SE05-10 Crab Bay looking towards the west.
<table>
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<th>Resources Protected (species)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE05-10-01</td>
<td>Crab Bay</td>
<td>Free-oil Recovery</td>
<td>Maximize recovery of oil at mouth of Crab Bay.Deployment nearshore free-oil recovery strike teams. Use aerial surveillance to locate areas of heavy slick concentrations.</td>
<td>Two or more nearshore free-oil recovery strike teams to intercept oil before it impacts sensitive areas.</td>
<td>Corner Bay</td>
<td>Via marine waters</td>
<td>Marine mammals; harbor seal haulout (rock at entrance); Fish; intertidal spawning (coho, pink, chum); Birds; waterfowl (winter concentration); shorebirds; Habitat; marsh, kelp and eelgrass beds, sheltered tidal flats, sheltered rocky shore; Human use; high recreational use, subsistence (fish and invertebrates), Terrestrial mammals, bears</td>
<td>Bear hazard; FOSC Historic Properties; Specialist should MONITOR on-site operations; See Figure G-3-10 for equipment locations; Tested: not yet</td>
</tr>
<tr>
<td>SE05-10-02</td>
<td>Crab Bay</td>
<td>Diversion/Recovery</td>
<td>Divert oil entering Crab Bay to shoreline recovery unit. Boon array; 2000 ft in 500 ft stepped array. Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 5 skits to deploy boom and set anchors. Place total of 2000 ft of boom to divert oil to shoreside recovery.</td>
<td>Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 5 skits to deploy boom and set anchors. Place total of 2000 ft of boom to divert oil to shoreside recovery.</td>
<td>See SE05-10-01</td>
<td>See SE05-10-01</td>
<td>See SE05-10-01</td>
<td>Tested: not yet</td>
</tr>
<tr>
<td>SE05-10-03</td>
<td>Crab Bay</td>
<td>Exclusion</td>
<td>Protect sensitive areas at stream mouth. Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 5 skits to deploy boom and set anchors. Deploy 7000 ft of protected-water boom.</td>
<td>Use class 2 or class 3/4 vessels with deck space to transport equipment. Use class 5 skits to deploy boom and set anchors. Deploy 7000 ft of protected-water boom.</td>
<td>See SE05-08-01</td>
<td>See SE05-08-01</td>
<td>See SE05-08-01</td>
<td>Avoid physical contact with the tide flat during low tides; Deploy boom at high tide to avoid driving oil into the substrate; Tested: not yet</td>
</tr>
<tr>
<td>SE05-10-04</td>
<td>Crab Bay</td>
<td>Passive Recovery</td>
<td>Minimize impact to intertidal mudflats and marsh through passive recovery using snare line or sorbent boom. Placed in tandem with exclusion boom (see SE05-10-03).</td>
<td>Place up to 4200 ft. of snare line or sorbent boom across mudflats and marsh. Anchor with stakes. Replace oiled sections as needed. Use snare line for persistent oils and sorbent boom for non-persistent.</td>
<td>See SE05-08-01</td>
<td>See SE05-08-01</td>
<td>See SE05-08-01</td>
<td>Deploy boom at high tide to avoid driving oil into the substrate; Tested: not yet</td>
</tr>
</tbody>
</table>
Middle Island, SE 05-11

Center of map at 57° 06.0' N Lat., 135° 27.0' W Lon.

*This is not intended for navigational use.*

**Legend**
- FO-S: Free-oil Containment and Recovery, Shallow Water
- EX: Exclusion Booming
- DV: Diversion Booming
- Protected-water Boom
- SR: Shoreside Recovery, Marine Access

**Image Descriptions**
- Middle Island looking towards the east.
- Middle Island looking towards the north.

**Geographic Response Strategies for Southeast Alaska Subarea**

June 26, 2003

Scale

1 nm

1 mi.

1,000 yds.
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<th>Resources Protected (mental)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE05-11-01</td>
<td>Middle Island</td>
<td>Free-oil Recovery</td>
<td>Deploy nearshore free-oil recovery strike teams. Use aerial surveillance to locate areas of heavy slick concentrations.</td>
<td>Multiple nearshore free-oil recovery strike teams to intercept oil before it impacts sensitive areas.</td>
<td>Sitka Harbor, Sitka Ferry Terminal</td>
<td>Via marine waters</td>
<td>See SE05-11-02</td>
<td>REPORT any cultural resources found during operations to FOSC Historic Properties Specialist. See Figure G-3-10 for equipment locations.</td>
</tr>
<tr>
<td></td>
<td>(Southwest cove)</td>
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<td>Lat. 57º 05 N Lon. 139º27 W</td>
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</tbody>
</table>
| SE05-11-02 | Middle Island            | Diversion/Recovery                | Use class 2 and class 3/4 vessels with deck space to transport equipment. Place protected-water boom, with tidal-seal on each end using class 6 skiffs. | Deployment:
  Equipment:
  1400 ft. protected-water boom,
  5 ea ~40 lbs. anchor systems for securing boom at approximately 300 ft. intervals,
  6 ea. 50 ft. of tidal-seal boom units,
  6 anchor stakes,
  2 ea. shallow-water recovery units,
  6 ea. class 2,
  2 ea. class 3/4,
  2 ea. class 6,
  Personnel/Shift:
  18 ea vessel crew,
  2 Tending:
  1 ea. class 3/4,
  2 ea. class 6,
  Personnel/Shift:
  5 ea. vessel crew | Deployment:
  Equipment:
  1400 ft. protected-water boom,
  5 ea ~40 lbs. anchor systems for securing boom at approximately 300 ft. intervals,
  6 ea. 50 ft. of tidal-seal boom units,
  6 anchor stakes,
  2 ea. shallow-water recovery units,
  6 ea. class 2,
  2 ea. class 3/4,
  2 ea. class 6,
  Personnel/Shift:
  18 ea vessel crew,
  2 Tending:
  1 ea. class 3/4,
  2 ea. class 6,
  Personnel/Shift:
  5 ea. vessel crew | SEE SE05-11-01 SEE SE05-11-01 | Marine mammals—harbor seals, whales,
  Fish—herring spawning,
  Habitat—kelp and eelgrass beds, sheltered tidal flats, sheltered rocky shore, intertidal diversity,
  Marine invertebrates,
  Human use—subsistence use, high recreational use, private residences | Tested: not yet.
Surveyed: 8/27/02 TLR |                                                                                       |
|          | (South end)              |                                  |                |                                                                                      |                        |                 |                             |                                                                                       |
|          | a. Lat. 57º 05.3 N Lon. 139º27.0 W |                                  |                |                                                                                      |                        |                 |                             |                                                                                       |
|          | b. Lat. 57º 05.3 N Lon. 139º26.6 W |                                  |                |                                                                                      |                        |                 |                             |                                                                                       |
|          |                          |                                  |                |                                                                                      |                        |                 |                             |                                                                                       |
| SE05-11-03 | Middle Island            | Exclusion                         | Use class 2 and class 3/4 vessels with deck space to transport equipment. Place protected-water boom, with tidal-seal on each end using class 6 skiffs. | Deployment:
  Equipment:
  2700 ft. protected-water boom,
  6 ea ~40 lbs. anchor systems for securing boom at mid-points, if needed,
  10 ea. 50 ft. of tidal-seal boom units,
  12 anchor stakes,
  Vessels/Personnel/Tending:
  See SE05-11-02 | Deployment:
  Equipment:
  2700 ft. protected-water boom,
  6 ea ~40 lbs. anchor systems for securing boom at mid-points, if needed,
  10 ea. 50 ft. of tidal-seal boom units,
  12 anchor stakes,
  Vessels/Personnel/Tending:
  See SE05-11-02 | SEE SE05-11-01 SEE SE05-11-01 SEE SE05-11-02 | Tested: not yet.
Surveyed: 8/27/02 TLR |                                                                                       |
|          | (South end)              |                                  |                |                                                                                      |                        |                 |                             |                                                                                       |
|          | a. (apex or mid-point)   |                                  |                |                                                                                      |                        |                 |                             |                                                                                       |
|          | Lat. 57º 05.57 N Lon. 139º27.64 W |                                  |                |                                                                                      |                        |                 |                             |                                                                                       |
|          | b. Lat. 57º 05.5 N Lon. 139º27.6 W |                                  |                |                                                                                      |                        |                 |                             |                                                                                       |
|          | c. Lat. 57º 05.5 N Lon. 139º26.3 W |                                  |                |                                                                                      |                        |                 |                             |                                                                                       |
Basket Bay, SE 05-12

Center of map at 57°39' N Lat., 134°54' W Lon.

Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Protected-water Boom
Tidal-seal Boom
Marine Recovery
Bears in Area, Guards Needed

This is not intended for navigational use.

Soundings in fathoms

Scale
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<tr>
<th>ID</th>
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<th>Response Strategy</th>
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<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE05-12-01</td>
<td>Basket Bay</td>
<td>Free-oil Recovery</td>
<td>Deploy nearshore free-oil recovery strike teams in calm waters inside mouth of Basket Bay. Use aerial surveillance to locate areas of heavy slick concentrations.</td>
<td>Multiple nearshore free-oil recovery strike teams as required to maximize interception of oil before it reaches the head of the Bay.</td>
<td>Juneau; Angoon; Vessel platform</td>
<td>Via marine waters</td>
<td>Multiple nearshore free-oil recovery strike teams as required to maximize interception of oil before it reaches the head of the Bay.</td>
<td>Bears in area. Forest Service Oil Spill Contingency (FOSC) Historic Properties Specialist should inspect site prior to operations. Cave mouth (unique geological formation) See Figure G-3-10 for equipment locations.</td>
</tr>
<tr>
<td>SE05-12-02</td>
<td>Basket Bay</td>
<td>Exclusion</td>
<td>Deploy 1500 ft of boom roughly north to south inside the 7-fathom line. Boom should bow westward.</td>
<td>1500 ft protected-water boom. 12 ea ~40 lbs anchor systems for securing boom every 250 feet. 6 ea. anchor stakes. 2 ea. class 2 2 ea. class 3/4 2 ea. class 6 Personnel Shift: 18 ea vessel crew Tending Vessels: 2 ea. class 3/4 2 ea. class 6</td>
<td>Juneau; Angoon; Vessel platform</td>
<td>Via marine waters</td>
<td>Same as SE05-12-01</td>
<td>Bears in area. Tested: not yet.</td>
</tr>
</tbody>
</table>
F. SOUTHEAST ALASKA RESPONSE ZONE 6

Figure G-3-11 provides an overview of the Southeast Alaska response zone 6, identifying the location of each GRS site. Each GRS site has been assigned an identifying number, which has no relevance to the site’s protection priority. This section contains geographic response strategies for each numbered site, in numerical order, beginning with SE06-01. Figure G-3-12 shows the location of oil spill response equipment throughout zone 6.

Figure G-3-11. Southeast Alaska Response Zone 6.

Figure G-3-12. Southeast Alaska Response Equipment Locator Map.
Pt. Carolus, SE 06-01

Center of map at 58° 21.9' N Lat., 136° 04.5' W Lon.

Legend

- **EX** Free-oil Containment and Recovery, Shallow Water
- **EX** Exclusion Boom
- **DF** Deflection Boom, Ebb Tide
- **DF** Deflection Boom, Flood Tide
- **DF** Protected-water Boom
- **DF** Open-water Boom
- **DF** Tidal-seal Boom
- **DF** Bear Guard Needed

Map

- Carolus River
- Pt. Carolus

Photo

- SE06-01 Looking southwest at Point Carolus.
- SE06-01 Looking west at Point Carolus.
- SE06-01-02 Looking north at the Carolus River.

Free-oil Containment and Recovery, Shallow Water
Exclusion Boom
Deflection Boom, Ebb Tide
Deflection Boom, Flood Tide
Protected-water Boom
Open-water Boom
Tidal-seal Boom
Bear Guard Needed

Geographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.

Soundings in fathoms
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<tr>
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<th>Implementation</th>
<th>Response/Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE06-01-01</td>
<td>Point Carolus (Carolus River) Nearshore waters in the general area of:</td>
<td>Free-oil Recovery</td>
<td>Deploy nearshore free-oil recovery strike teams upwind and up current of Point Carolus and Carolus River. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple nearshore free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Public access dock, Bartlett Cove</td>
<td>Via marines waters</td>
<td>Same as for SE06-01-02</td>
<td>Vessel masters should have local knowledge.</td>
</tr>
<tr>
<td></td>
<td>Lat. 58º 21.7 NLon. 136º 02.7 W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE06-01-02</td>
<td>Carolus River</td>
<td>Exclusion</td>
<td>Use class 2 and class 3/4 vessels with dock space to transport equipment, class 6 skeleton or seine skiffs to deploy boom and set anchors. Place 800 ft. of protected water boom, with tidal-seal on both ends, across the mouth of Carolus River.</td>
<td>Use class 2 and class 3/4 vessels with dock space to transport equipment, class 6 skeleton or seine skiffs to deploy boom and set anchors. Place 800 ft. of protected water boom, with tidal-seal on both ends, across the mouth of Carolus River.</td>
<td>Public access dock, Bartlett Cove</td>
<td>Via marines waters</td>
<td>Marine mammals-harbor seal and Stellar Sea Lion rookeries and haulouts (summer - 500 yd. exclusion zone around haulout), humpback whale concentration (April – October)</td>
<td>Marine mammals-harbor seal and Stellar Sea Lion rookeries and haulouts (summer - 500 yd. exclusion zone around haulout), humpback whale concentration (April – October)</td>
</tr>
<tr>
<td></td>
<td>Lat. 58º 22.2 N Lon. 136º 03.9 W</td>
<td></td>
<td>Deployment Equipment 800 ft protected water boom 10 ea. anchor systems (~40 lbs.) 2 ea. 50 ft. tidal-seal 4 ea. anchor stakes. Vessels 2 ea. class 2 2 ea. class 3/4 2 ea. class 6 Personnel Shift 18 ea. vessel crew Tending Vessels 1 ea. class 3/4 2 ea. class 6 Personnel 7 ea. vessel crew</td>
<td>Deployment Equipment 800 ft protected water boom 10 ea. anchor systems (~40 lbs.) 2 ea. 50 ft. tidal-seal 4 ea. anchor stakes. Vessels 2 ea. class 2 2 ea. class 3/4 2 ea. class 6 Personnel Shift 18 ea. vessel crew Tending Vessels 1 ea. class 3/4 2 ea. class 6 Personnel 7 ea. vessel crew</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE06-01-03</td>
<td>Point Carolus DF-03</td>
<td>Deflection (ebb)</td>
<td>Place open-water boom in cascade arrays, with 660 ft sections, to deflect oil traveling northeast away from Carolus River and Pt. Carolus reef.</td>
<td>Place open-water boom in cascade arrays, with 660 ft sections, to deflect oil traveling northeast away from Carolus River and Pt. Carolus reef.</td>
<td>Public access dock, Bartlett Cove</td>
<td>Via marines waters</td>
<td>Same as for SE06-01-02</td>
<td>This tactic for flood tides, let booms flag during ebb. Currents up to 4 kts. Tested: 06/04/03 SEAPRO, NPS Surveyed: 5/02 NPS, TLR</td>
</tr>
<tr>
<td></td>
<td>b. Lat. 58º 22.2 N Lon. 136º 02.9 W</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Lat. 58º 22.3 N Lon. 136º 02.2 W</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE06-01-04</td>
<td>Point Carolus DF-04</td>
<td>Deflection (flood)</td>
<td>Place open-water boom in cascade arrays, with 660 ft sections, to deflect oil traveling southwest away from reef at Pt. Carolus.</td>
<td>Place open-water boom in cascade arrays, with 660 ft sections, to deflect oil traveling southwest away from reef at Pt. Carolus.</td>
<td>Public access dock, Bartlett Cove</td>
<td>Via marines waters</td>
<td>Same as for SE06-01-02</td>
<td>This tactic for ebb tides, let boom flag during ebb. Currents up to 4 kts. Tested: 06/04/03 SEAPRO, NPS Surveyed: 5/02 NPS, TLR</td>
</tr>
<tr>
<td></td>
<td>b. Lat. 58º 23.4 N Lon. 136º 01.9 W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Bartlett Cove, SE 06-02

Soundings in fathoms

Center of map at 58° 28.4' N Lat., 135° 53.6' W Lon.

Legend

- Free-oil Containment and Recovery, Shallow Water
- Diversion Booming
- Protected-water Boom
- Tidal-seal Boom
- Shoreside Recovery
- Marine Recovery
- Staging Area
- Road
- Dock

June 26, 2003

Geographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.

Scale

1 nm
1 mi.
1,000 yds.

Gustavus 8 miles

Lester Island

Boat Dock
Park Headquarters

Lodge
Fuel Depot

Alder Creek
Bartlett River

Gustavus 8 miles

SE06-02 Bartlett Cove looking north.

SE06-02 Bartlett Cove looking east.

SE06-02 Bartlett Cove looking southeast.

Lester Island

Boat Dock
Park Headquarters

Lodge
Fuel Depot

Alder Creek
Bartlett River

Gustavus 8 miles
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<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE06-02-01</td>
<td>Bartlett Cove</td>
<td>Free-oil Recovery- Shallow Water</td>
<td>Deploy free-oil recovery strike teams upwind and upcurrent of head of Bartlett Cove. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Public use dock or fuel dock</td>
<td>Via marine waters</td>
<td>Same as SE06-02-02</td>
<td>See Figure G-3-12 for equipment locations. Vessel masters should have local knowledge.</td>
</tr>
<tr>
<td>SE06-02-02</td>
<td>Bartlett River Mouth</td>
<td>Diversion / Recovery</td>
<td>Divert oil to the designated shoreline recovery site at mouth of inner lagoon.</td>
<td>Deploy tactic from the shoreline by placing 2000 ft. of protected-water boom in a cascade array, with 10 sections and tidal-seal on the end. Divert oil to shoreline recovery site.</td>
<td>Public use dock or fuel dock</td>
<td>Maintenance road to &quot;cut&quot; at mouth of inner lagoon</td>
<td>Marine mammals-humpback whale concentration area (summer) Fish-intertidal salmon/trout spawning (coho, chum, pink sockeye, steelhead, Dolly Varden) Birds-waterfowl and shorebird migratory and feeding concentration area (year-round) Habitat-marsh, sheltered rocky shores, eel grass (inside public use dock) Human-use-high recreational use</td>
<td>Same as SE06-02-01 See Figure G-3-12 for equipment locations. This area is located in Glacial Bay National Park FOSC Historic Properties Specialist should MONITOR on-site operations. Tested: 5/29/02 NPS, SEAPRO Surveyed: 5/29/02 NPS, SEAPRO, TLR</td>
</tr>
<tr>
<td>SE06-02-03</td>
<td>Bartlett River Mouth</td>
<td>Diversion / Recovery</td>
<td>Deploy from shore by placing 1600 ft. of protected-water boom in a cascade array, with 8 sections and tidal-seal on the end. Divert oil to marine recovery site.</td>
<td>Deployment equipment: 1600 ft. protected-water boom 18 ea. anchor systems (~40 lbs.) 50 ft. tidal-seal boom 2 ea. anchor stakes 1 ea. marine recovery unit Vessels: class 3/4 2 ea. class 6 Personnel / Shift 10 ea. vessel crew</td>
<td>Public use dock or fuel dock</td>
<td>Via marine waters</td>
<td>Same as SE06-02-02</td>
<td>Same as SE06-02-01 Tested: 5/29/02 NPS, SEAPRO Surveyed: 5/29/02 NPS, SEAPRO, TLR</td>
</tr>
<tr>
<td>SE06-02-04</td>
<td>Alder Creek</td>
<td>Passive Recovery</td>
<td>Minimize impact to designated area through passive recovery using snare line or sorbent boom.</td>
<td>Place 60 ft. snare line or sorbent boom across mudflats. Anchor with stakes. Replace oiled sections as needed. Use snare line for persistent oils and sorbent boom for non-persistent.</td>
<td>Deployment equipment: 60 ft. snare line or sorbent boom 4 ea. anchor stakes Vessels: Personnel / Tending Same as SE06-02-02</td>
<td>Public use dock or fuel dock</td>
<td>Maintenance road to &quot;cut&quot; at mouth of inner lagoon or via marine waters at high tide</td>
<td>Same as SE06-02-02 Tested: 5/24/02 NPS, SEAPRO Title 14 permit may be required by ANDR. If heavy oiling is expected, consider adding an array of calm-water boom behind the passive recovery. Surveyed: 5/29/02 NPS, SEAPRO, TLR</td>
</tr>
</tbody>
</table>
Geographic Response Strategies for Neka Bay, SE 06-03

Legend

- **FO-S**: Free-oil Containment and Recovery, Shallow Water
- **EX**: Exclusion Booming
- **DV**: Diversion Booming
- **DF**: Deflection Booming, Fixed
- **PR**: Passive Recovery and Debris
- **EX****: Protected-water Boom
- **Snare Line**
- **Calm-water Boom**
- **Tidal-seal Boom**
- **Marine Recovery**
- **Bears in Area, Guards Needed**

Map

Center of map at 58° 02.3' N Lat., 135° 37.3' W Lon.

Soundings in fathoms

This map is not intended to be used for navigation.

SE06-03 Looking northwest over the North and South Bight of Neka Bay.

SE06-03 Looking west into Neka Bay.

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<th>Resources Protected</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE06-03-01</td>
<td>Mouth of Neka Bay (&lt;br&gt;Nearshore waters in the general area of: (&lt;br&gt;Lat. 58°02.4 N Long. 135°37.3 W)</td>
<td>Free-oil Recovery (&lt;br&gt;Maximize free-oil recovery in the offshore &amp; nearshore environment.)</td>
<td>Deploy free-oil recovery strike teams upwind and up-current. Use aerial surveillance to locate incoming slicks. Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Vessel platform</td>
<td>Via marine waters</td>
<td>Same as SE06-03-02</td>
<td>Bears in area. Fish &amp; wildlife in area. See Figure G-3-12 for equipment locations.</td>
<td></td>
</tr>
<tr>
<td>SE06-03-02</td>
<td>Neka River mouth (&lt;br&gt;Lat. 58°02.1 N Long. 139°40.5 W)</td>
<td>Diversion / Recovery (&lt;br&gt;Divert oil entering mouth of Neka River to marine recovery.)</td>
<td>Use class 2 and class 3/4 vessels with deck space to transport equipment. Class 6 snelt or seine skiffs to deploy boom and set anchors. Place 3200 ft. of protected-water boom at the head of Neka Bay, in a chevron pattern, to divert oil to marine recovery.</td>
<td>Deployment Equipment (&lt;br&gt;- 3200 ft. protected-water boom (&lt;br&gt;- 34 ea. anchor systems (~40 lbs.) (&lt;br&gt;- 1 marine recovery unit (&lt;br&gt;- 2 ea. class 2 (&lt;br&gt;- 2 ea. class 3/4 (&lt;br&gt;- 2 ea. class 6 Personnel / Shift (&lt;br&gt;- 18 ea. vessel crew Tending Vessels (&lt;br&gt;- 1 ea. class 3/4 (&lt;br&gt;- 2 ea. class 6 Personnel / Shift (&lt;br&gt;- 5 ea. vessel crew Vessel platform or Hoonah</td>
<td>Vessel platform or Hoonah</td>
<td>Via marine waters</td>
<td>Marine mammals—harbor seal rookeries and haulouts, whale and seal feeding areas. Fish—intertidal salmon/trotal spawning (&lt;br&gt;—coho, pink, chum, sockeye, king, Dolly Varden) (&lt;br&gt;—May-Aug.) Birds—High density pigeon guillemots at Chimney Rock, waterfowl and shorebird concentration area (year-round) Habitat—sheltered tidal flats, extensive eelgrass beds Human use—subsistence use area, shellfish harvesting/shell flat, high recreational use Terrestrial mammals—bears. See Figure G-3-12 for equipment locations.</td>
<td></td>
</tr>
<tr>
<td>SE06-03-03</td>
<td>Cove in Neka Bay (&lt;br&gt;a. Lat. 58°03.0 N Long. 135°41.0 W) (&lt;br&gt;b. Lat. 58°02.1 N Long. 139°38.7 W)</td>
<td>Exclusion (&lt;br&gt;Exclude oil from entering North Bight.)</td>
<td>Place protected-water boom in two arrays, with tidal-seal on each end, from small island to headlands of cove to exclude oil from entering cove.</td>
<td>Deployment Equipment (&lt;br&gt;- 7600 ft. protected-water boom (&lt;br&gt;- 78 ea. anchor systems (~40 lbs.) Vessels / Personnel / Tending Same as SE06-03-02</td>
<td>Vessel platform or Hoonah</td>
<td>Via marine waters</td>
<td>Same as SE06-03-02</td>
<td>Consider using log boom in front of oil boom. Tested: not yet</td>
</tr>
<tr>
<td>SE06-03-04</td>
<td>Neka Island /Open Water between North Bight and Chimney Rock (&lt;br&gt;a. Lat. 58°01.9 N Long. 135°36.0 W) (&lt;br&gt;b. Lat. 58°01.8 N Long. 139°37.1 W) (&lt;br&gt;c. Lat. 58°01.4 N Long. 139°36.8 W) (&lt;br&gt;d. Lat. 58°01.1 N Long. 139°37.2 W)</td>
<td>Deflection (&lt;br&gt;Deflect oil away from Neka Bay.)</td>
<td>Place array(s) at the southeast point of Neka Island, array b. offshore between Neka Island and Chimney Rock, array c. around Chimney Rock to deflect oil coming from the north and array d. south of chimney rock to deflect oil coming from the south. Swing boom with tide.</td>
<td>Deployment Equipment (&lt;br&gt;- 7600 ft. protected-water boom (&lt;br&gt;- 78 ea. anchor systems (~40 lbs.) Vessels / Personnel / Tending Same as SE06-03-02</td>
<td>Vessel platform or Hoonah</td>
<td>Via marine waters</td>
<td>Same as SE06-03-02</td>
<td>Consider placing a harbor boom behind passive recovery. Tested: not yet</td>
</tr>
<tr>
<td>SE06-03-05</td>
<td>Mouth of Neka River (&lt;br&gt;Lat. 58°03.2 N Long. 139°41.7 W)</td>
<td>Passive Recovery (&lt;br&gt;Exclude oil from entering mouth of Neka Bay.)</td>
<td>Place 2000 ft. of snare line or sorbent boom around mouth of Neka River to exclude oil from entering Neka River. Use snare line for persistent oils and sorbent boom for non-persistent.</td>
<td>Deployment Equipment (&lt;br&gt;- 2000 ft. protected-water boom (&lt;br&gt;- 22 ea. anchor systems (~40 lbs.) Vessels / Personnel / Tending Same as SE06-03-02</td>
<td>Vessel platform or Hoonah</td>
<td>Via marine waters</td>
<td>Same as SE06-03-02</td>
<td></td>
</tr>
</tbody>
</table>

June 26, 2003
Berg Bay, SE 06-04

Soundings in fathoms

Center of map at 58° 31.5' N Lat., 136° 09.7' W Lon.

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Deflection Booming, Fixed
Passive Recovery and Debris Removal
Protected-water Boom
Tidal-seal Boom
Snare Line
Marine Recovery
Shoreside Recovery, Marine Access
Bears in Area, Guards Needed

Map
Photo
Legend

This is not intended for navigational use.

Berg Bay, SE 06-04

Head of Berg Bay looking west.

Looking west into intertidal cove in Berg Bay.

Looking west into intertidal cove in Berg Bay.
<table>
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<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response/Equipment</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
</table>
| **SE06-04-01** | Berg Bay Nearshore waters in the general area of:  
  a. Lat. 59º32.4 N  
  Lon. 136º07.9 W  
  b. Lat. 59º31.9 N  
  Lon. 136º07.4 W | Freewater Recovery-Shallow Water                          | Deploy free-oil recovery strike teams upwind and up-current of Berg Bay. Use aerial surveillance to locate incoming slicks. | Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas. | Bartlett Cove and vessel platform | Via marine waters  
  Chart 17318 | Same as SE06-04-02  
  Vessel master should have local knowledge. |                                                                 |
| **SE06-04-02** | Berg Bay  
  a. Lat. 59º32.8 N  
  Lon. 136º08.2 W  
  b. Lat. 59º31.1 N  
  Lon. 136º06.6 W | Definition  
  Deflect oil away from the entrance to Berg Bay. | Transport equipment to the site by marine vessel (class 2/3/4). Place booms on both sides of the entrance to Berg Bay in 200 ft. cascaded arrays with fishing vessels and skiffs (class 3/4/6) at appropriate angles to deflect to free-oil strike teams. | Deployment  
  Equipment  
  2400 ft. protected-water boom  
  30 ea. anchor systems (~40 lbs.)  
  2 ea. anchor stakes  
  Vessels  
  2 ea. class 2  
  3 ea. class 3/4  
  2 ea. class 6  
  Personnel / Shift  
  24 ea. vessel crew  
  Tending  
  Vessels  
  2 ea. class 3/4  
  2 ea. class 6  
  Personnel / Shift  
  10 ea. vessel crew | Bartlett Cove and vessel platform | Via marine waters  
  Chart 17318 | Marine mammals-humpback whale feeding (sumner).  
  Fish-intertidal salmon spawning  
  100000 (pink, chum, sockeye)  
  Birds-waterfowl and shorebirds  
  Habitat-marsh/estuary, sheltered rocky shore, high intertidal diversity  
  Human use-high recreational use (May-Sept.)  
  Terrestrial mammals-bears  
  Vessel master should have local knowledge. | This area is located in Glacier Bay National Park.  
  FOSC Historic Properties Specialist should MONITOR on-site operations.  
  See Figure G-3-12 for equipment locations.  
  Title 41 permit may be necessary. Contact ADNR. Surveyed: 5/15/02 NPS, TLR  
  Tested: not yet |                                                                 |
| **SE06-04-03** | Berg Bay Entrance  
  Lat. 59º31.6 N  
  Lon. 136º09.0 W  
  Alternative shoreline locations:  
  a. Lat. 59º31.82 N  
  Lon. 136º08.54 W  
  b. Lat. 59º31.51 N  
  Lon. 136º08.27 W | Divert / Recover  
  Divert oil coming in the main entrance to Berg Bay to marine recovery. | Use fishing vessels and skiffs (class 3/4/6) to place protected-water and tidal-seal boom in a chevron pattern. Establish marine recovery at the apex. If current is too high, detach marine recovery and operate as free-oil recovery. Consider alternative divert and recovery tactics using shoreline recovery. | Deployment  
  Equipment  
  4600 ft. protected-water boom  
  2 ea. <50 ft. section tidal-seal boom  
  14 ea. anchor stakes  
  1 ea. marine recovery unit  
  Vessels  
  Same as SE07-03-02  
  Personnel  
  Same as SE07-03-02  
  Tending  
  Vessels  
  Same as SE07-03-02  
  Personnel / Shift  
  Same as SE07-03-02 | Bartlett Cove and vessel platform | Via marine waters  
  Chart 17318 | Marine mammals-humpback whale feeding (sumner).  
  Fish-intertidal salmon spawning  
  100000 (pink, chum, sockeye)  
  Birds-waterfowl and shorebirds  
  Habitat-marsh/estuary, sheltered rocky shore, high intertidal diversity  
  Human use-high recreational use (May-Sept.)  
  Terrestrial mammals-bears  
  Vessel master should have local knowledge. | This area is located in Glacier Bay National Park.  
  FOSC Historic Properties Specialist should MONITOR on-site operations.  
  See Figure G-3-12 for equipment locations.  
  Title 41 permit may be necessary. Contact ADNR. Surveyed: 5/15/02 NPS, TLR  
  Tested: not yet |                                                                 |
| **SE06-04-04** | Berg Bay Southeast Cove  
  Lat. 59º31.2 N  
  Lon. 136º08.2 W | Exclusion  
  Exclude oil from entering cove on southeast side of Berg Bay. | Use fishing vessels and skiffs (class 3/4/6) to place protected-water and tidal-seal boom across entrance to cove on the southeast side of Berg Bay. | Deployment  
  Equipment  
  1400 ft. protected-water boom  
  16 ea. anchor systems (~30 lbs.)  
  2 ea. <50 ft. section tidal-seal boom  
  4 ea. anchor stakes  
  Vessels  
  Personnel / Tending  
  Same as SE07-03-02 | Bartlett Cove and vessel platform | Via marine waters  
  Chart 17318 | Marine mammals-humpback whale feeding (sumner).  
  Fish-intertidal salmon spawning  
  100000 (pink, chum, sockeye)  
  Birds-waterfowl and shorebirds  
  Habitat-marsh/estuary, sheltered rocky shore, high intertidal diversity  
  Human use-high recreational use (May-Sept.)  
  Terrestrial mammals-bears  
  Vessel master should have local knowledge. | This area is located in Glacier Bay National Park.  
  FOSC Historic Properties Specialist should MONITOR on-site operations.  
  See Figure G-3-12 for equipment locations.  
  Title 41 permit may be necessary. Contact ADNR. Surveyed: 5/15/02 NPS, TLR  
  Tested: not yet |                                                                 |
| **SE06-04-05** | Berg Bay Coves and Streams  
  a. Lat. 59º32.2 N  
  Lon. 136º10.6 W  
  b. Lat. 59º31.4 N  
  Lon. 136º10.8 W  
  c. Lat. 59º31.3 N  
  Lon. 136º13.8 W  
  d. Lat. 59º30.7 N  
  Lon. 136º13.7 W | Passive Recovery  
  Minimize impact to designated area through passive recovery using shoreline or sorbent boom. | Place and anchor shoreline or sorbent boom across the tidal flats at the mouth of cove on the northeast side of Berg Bay and across tidal flats at streams at the head of the bay. | Deployment  
  Equipment  
  6400 ft. shoreline or sorbent boom  
  64 ea. anchor stakes  
  Vessels  
  Personnel / Tending  
  Same as SE07-03-02 | Bartlett Cove and vessel platform | Via marine waters  
  Chart 17318 | Marine mammals-humpback whale feeding (sumner).  
  Fish-intertidal salmon spawning  
  100000 (pink, chum, sockeye)  
  Birds-waterfowl and shorebirds  
  Habitat-marsh/estuary, sheltered rocky shore, high intertidal diversity  
  Human use-high recreational use (May-Sept.)  
  Terrestrial mammals-bears  
  Vessel master should have local knowledge. | This area is located in Glacier Bay National Park.  
  FOSC Historic Properties Specialist should MONITOR on-site operations.  
  See Figure G-3-12 for equipment locations.  
  Title 41 permit may be necessary. Contact ADNR. Surveyed: 5/15/02 NPS, TLR  
  Tested: not yet | Use shoreline for persistent oils and sorbent boom for nonpersistent oils. Surveyed: 5/15/02 NPS, TLR  
  Bears in area |
Hugh Miller Inlet, SE 06-05

Center of map at 58° 45.8' N Lat., 136° 30.2' W Lon.

Legend

- **Free-oil Containment and Recovery, Shallow Water**
- **EX** Exclusion Booming
- **DF** Deflection Booming, Fixed
- **DV** Diversion Booming
- **SR** Protected-water Boom
- **Tidal-seal Boom**
- **Shoreside Recovery, Marine Access**

Map

- **SE06-05 Looking northwest into Blue Mouse Cove and Hugh Miller Inlet.**
- **SE06-05 Looking southwest into Blue Mouse Cove.**
- **SE06-05-03 Looking north at the head of Hugh Miller Inlet.**

Geographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
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<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE06-05-01</td>
<td>Blue Mouse Cove</td>
<td>Free-oil Recovery - Shallow Water</td>
<td>Deploy free-oil recovery strike teams upwind and up-current of Hugh Miller Inlet and Blue Mouse Cove. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Bartlett Cove</td>
<td>Via marine waters</td>
<td>Same as SE06-05-02</td>
<td>Vessel master should have local knowledge.</td>
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<td>Chart 17318</td>
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<tr>
<td>SE06-05-02</td>
<td>Blue Mouse Cove</td>
<td>Deflection - Fixed</td>
<td>Transport equipment to sites by vessel (class 2/3/4). Establish boom position in designated areas around Blue Mouse Cove and Hugh Miller Inlet to maximize the deflection of oil to the center of the inlet.</td>
<td>Deployment Equipment: 10,400 ft. protected-water boom 15 ea. anchor stakes 104 anchor systems (~30 lbs)</td>
<td>Vessel platform</td>
<td>Via marine waters</td>
<td>Chart 17318</td>
<td>Marine mammals - humpback whales (summer) Birds - waterfowl and shorebirds - migration, molting, and winter concentration Human use - High recreational use (May-Sept.) Habitat-management, sheltered rocky shoreline, high intertidal diversity</td>
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<td>Chart 17318</td>
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<tr>
<td></td>
<td>Hugh Miller Inlet</td>
<td>Exclusion</td>
<td>Deploy tidal-seal boom and protected-water boom across identified area. Tend throughout the tide.</td>
<td>Deployment Equipment: 2 ea. &gt;50 ft. tidal-seal boom 1600 ft. calm-water boom 6 ea. anchor stakes 16 anchor systems (~30 lbs)</td>
<td>Vessel platform</td>
<td>Via marine waters</td>
<td>Chart 17318</td>
<td>Vessel master should have local knowledge.</td>
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<td>Chart 17318</td>
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<tr>
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<td>Hugh Miller Inlet Stream</td>
<td>Divert and Recover</td>
<td>Deploy anchors and boom with fishing vessels and skiffs (class 3/4/6). Place protected-water boom at the proper angle to divert oil to recovery sites. Set up recovery units and tend throughout the tide.</td>
<td>Deployment Equipment: 2000 ft. protected-water boom 2 sections &gt;50 ft. tidal-seal boom 10 ea. anchor stakes 4 ea. anchor stakes 2 ea. shoreline recovery units</td>
<td>Vessel platform</td>
<td>Via marine waters</td>
<td>Chart 17318</td>
<td>Take appropriate measures as outlined in Part 2 of this document to protect the beach at the recovery site.</td>
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<td>Chart 17318</td>
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<td>Chart 17318</td>
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</table>
North Beardslee Islands, SE 06-06

Center of map at 58° 32.6' N Lat., 135° 57.8' W Lon.

Legend

- FO-S: Free-oil Containment and Recovery, Shallow Water
- DF-L: Deflection Booming, Live
- Protected-water Boom

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<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE06-06-01</td>
<td>North Beardslee Islands Nearshore waters in the general area of: a. Lat. 58º 34.50 N Lon. 136º 00.61 W b. Lat. SP 29. 65 N Lon. 136º 00.64 W</td>
<td>Free-oil Recovery-Shallow Water</td>
<td>Deploy free-oil recovery strike teams upwind and up-current of N. Beardslee Islands. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Gustavus or Bartlett Cove</td>
<td>Via marine waters Chart 17318</td>
<td>Same as SE-06-06-02</td>
<td>Vessel masters should have local knowledge. There are many submerged rocks in the immediate area.</td>
</tr>
<tr>
<td>SE06-06-02</td>
<td>North Beardslee Islands a. Lat. 58º 35.05 N Lon. 135º 59.68 W b. Lat. 58º 33.57 N Lon. 135º 58.72 W c. Lat. 58º 31.47 N Lon. 135º 58.09 W</td>
<td>Deflection-Live</td>
<td>Transport equipment to site by marine vessel (class 2/3/4). Place booms and hold in place with fishing vessel (class 3/4). Position booms at adequate angle to deflect oil from the N. Beardslee Islands and set up for free-oil recovery.</td>
<td>Boom lengths: a. 600 ft. b. 600 ft. c. 600 ft.</td>
<td>Vessel platform</td>
<td>Via marine waters Chart 17318</td>
<td>Maritime mammals-harbor seals, humpback whales (summer) Fish-juvenile salmon Birds-waterfowl and shorebirds migration, molting, and winter concentration Habitat-manifests, sheltered rocky shoreline, kelp/eed grass beds, high intertidal diversity High recreational use (May-Sept.) Land management-National Park Terrestrial mammals-bears</td>
<td>Vessel master should have local knowledge. See Figure G-3-12 for equipment locations. This area is located in Glacier Bay National Park. Bears in area. Surveyed: 5/15/02 NPS, TLR Tested not yet</td>
</tr>
</tbody>
</table>
Dundas Bay, SE 06-07

Legend

- **Free-oil Containment and Recovery, Shallow Water** (FO-S)
- **Exclusion Booming** (EX)
- **Deflection Booming, Fixed** (DF)
- **Passive Recovery and Debris Removal** (PR)
- **Protected-water Boom**
- **Snare Line**
- **Tidal-seal Boom**
- **Bears in Area, Guards Needed**

This is not intended for navigational use.

Map 

*SE06-07 Dundas Bay entrance looking towards the northwest.*

*SE06-07-04 Looking north at a stream in Dundas Bay.*

*SE06-07-02 & 03 Looking northwest at the islands in Dundas Bay.*

*SE06-07-02d & e Looking southwest in Dundas Bay.*

*SE06-07-04 Looking north at a stream in Dundas Bay.*

*SE06-07-02d & e Looking southwest in Dundas Bay.*

Soundings in fathoms

Center of map at 58°27' N Lat., 136° 31' W Lon.
<table>
<thead>
<tr>
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<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE06-07-01</td>
<td>Dundas Bay (confluence of NW and SW arms) at: Lat. 58º 24.05 N Lon. 136º 28.4 W</td>
<td>Free-oil Recovery</td>
<td>Deploy free-oil recovery strike teams in areas immediately adjacent to the vessel casualty. Use aerial surveillance to locate areas of heavy slick concentrations.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Bartlett Cove, Glacier Bay National Park, or Gustavus</td>
<td>Via marine waters.</td>
<td>Marine mammals-harbor seals, Fish- obtaining salmon spawning (pink, chum) (summer-fall), Birds-waterfowl and shore birds (year-round), Habitat-marsh, tidal mudflats and wetlands, Human use-high recreational use, Land management-National Park, Terrestrial mammals-bears</td>
<td>Bear hazard along shoreline. See Figure G-3-12 for equipment locations.</td>
</tr>
<tr>
<td>SE06-07-02</td>
<td>Dundas Bay (confluence of NW and SW arms) Between islets along northeast &amp; southeast shoreline at: a. Lat. 58º 24.0 N Lon. 136º 27.4 W b. Lat. 58º 23.8 N Lon. 136º 27.0 W c. Lat. 58º 23.3 N Lon. 136º 25.4 W d. Lat. 58º 22.4 N Lon. 136º 24.3 W e. Lat. 58º 22.15 N Lon. 136º 23.7 W</td>
<td>Exclusion</td>
<td>Exclude oil from entering wetlands north of islets. Use class 2 and class 3/4 vessels with deck space to transport equipment. Place protected water boom with tidal seal on each end between islets using class 6 skiffs. Boom should roughly follow the line of the channel.</td>
<td>Deployment Equipment 6800 ft. protected-water boom. 9 ea ~40 lbs. anchor systems for boom every 500 feet. 10 ea. 50 ft. of tidal-seal boom units. 10 ea Anchor stakes. Vessels 2 ea. class 2 2 ea. class 3/4 2 ea. class 6 Personnel Shift 1 ea. vessel crew Tending Vessels 1 ea. class 3/4 2 ea. class 6 Personnel/Shift 5 ea vessel crew</td>
<td>Bartlett Cove, Glacier Bay National Park, or Gustavus</td>
<td>Via marine waters.</td>
<td>See SE06-07-02</td>
<td>Bear hazard along shoreline. This area is located in Glacier Bay National Park. Title 41 permit may be necessary. Contact ADNR. FOSC Historic Properties Specialist should MONITOR on-site operations. See Figure G-3-12 for equipment locations. Tested: not yet Surveyed: 5/15/02 NPS, TLR</td>
</tr>
<tr>
<td>SE06-07-03</td>
<td>Dundas Bay (confluence of NW and SW arms) a. Lat. 58º 23.2 N Lon. 136º 25.0 W b. Lat. 58º 22.7 N Lon. 136º 23.8 W</td>
<td>Deflection</td>
<td>Deploy 1500 ft. of boom at angle appropriate for current velocity. Heaviest concentration of oil is likely to be from northeast.</td>
<td>Deployment Equipment 1500 ft. protected-water boom. 4 ea. ~40 lbs. anchor systems. 7 ea. ~40 lbs. anchor systems for securing boom every 500 ft. 1 ea. anchor stakes. Vessels/Personal/Tending</td>
<td>See SE06-07-02</td>
<td>See SE06-07-02</td>
<td>See SE06-07-02</td>
<td>See SE06-07-02</td>
</tr>
<tr>
<td>SE06-07-04</td>
<td>Dundas Bay Old Dundas River mouth (fossil river) Lat. 58º 22.7 N Lon. 136º 23.8 W</td>
<td>Passive Recovery</td>
<td>Place 500 ft. snare line or sorbent boom across mudflats. Anchor with stakes. Replace oiled sections as needed. Use snare line for persistent oils and sorbent boom for non-persistent.</td>
<td>Deployment Equipment 500 ft. snare line or sorbent boom. 10 ea. anchor stakes. Vessels/ Personnel / Tending</td>
<td>See SE06-07-02</td>
<td>See SE06-07-02</td>
<td>See SE06-07-02</td>
<td>See SE06-07-02</td>
</tr>
</tbody>
</table>
South Marble Island, SE 06-08

Legend

- Free-oil Containment and Recovery, Shallow Water
- Deflection Booming, Live
- Protected-water Boom

SE06-08 Looking northeast towards South Marble Island.

SE06-08 Looking southwest at South Marble Island.

SE06-08 Looking northwest at South Marble Island.

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<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE06-08-01</td>
<td>South Marble Island (Glacier Bay) Lat. 58º 38 N Lon. 136º 02 W</td>
<td>Free-oil Recovery</td>
<td>Deploy free-oil recovery strike teams. Ensure operations do not disturb sea lions and seals on haulouts. Maintain 100 yds. off north shore and 50 yds off south shore.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts South Marble Island.</td>
<td>Bartlett Cove or vessel platform</td>
<td>Via marine waters</td>
<td>Marine mammals-seal and Steller sea lion haulout (500 yd. exclusion zone/year-round), humpback whale feeding area (summer) Birds-puffins, gulls, pigeon guillemots, oystercatchers, cormorants (extensive colonies) Habitat-sheltered rocky shores Human use-High recreational use Land management-National Park</td>
<td>Exposed conditions, shoal water/rocks and marine mammal haul-out prohibit any direct approach, landing or attachment of equipment to the island.</td>
</tr>
<tr>
<td>SE06-08-02</td>
<td>South Marble Island (Glacier Bay) Lat. 58º 38 N Lon. 136º 02 W</td>
<td>Deflection - Live</td>
<td>Deflect oil away from island using boom tethered to response vessels: Boom may not be attached to the island. Deep water precludes anchoring along the nearshore. Arrays of boom must be positioned and held in place by small vessels.</td>
<td>Tow and position 600 ft. of boom using class 3/4 vessels (2 vessels per 600 ft. boom string). Use aerial surveillance to position boom. Deflect oil away from island and into open water of Glacier Bay.</td>
<td>Deployment Equipment 2400 ft. protected-water boom Vessels 8 ea. class 3/4 Personnel/Shift 16 ea. vessel crew Tending Vessels 2 ea. class 2 2 ea. class 6 Personnel/Shift 12 ea. vessel crew</td>
<td>Same as SE06-08-02 Same as SE06-08-02 Same as SE06-08-02 Same as SE06-08-02</td>
<td>Towing required. See Figure G-3-12 for equipment locations. This area is located in Glacier Bay National Park. Tested: not yet Surveyed: 5/15/02 NPS, TLR</td>
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</tbody>
</table>
Spokane/Sandy Cove, SE 06-09

Center of map at 58° 42' N Lat., 135° 58' W Lon.

Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Deflection Booming, Fixed
Diversion Booming
Protected-water Boom
Tidal-seal Boom
Shoreside Recovery, Marine Access
Marine Recovery
Bears in Area, Guards Needed

This is not intended for navigational use.

Soundings in fathoms
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<th>Site Access</th>
<th>Resources Protected (mga)</th>
<th>Special Considerations</th>
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<tbody>
<tr>
<td>SE06-09-01</td>
<td>Spokane/Sandy Cove</td>
<td>Free-oil Recovery</td>
<td>Deploy free-oil recovery strikes. Use aerial surveillance to locate areas of heavy slick concentrations.</td>
<td>Four free-oil recovery strikes to prevent movement of oil before it impacts sensitive areas.</td>
<td>Bartlett Cove, Glacier Bay National Park.</td>
<td>Via marine waters</td>
<td>See SE06-09-02</td>
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<td></td>
<td>Lat. 58º 42.5 N Lon. 135º 57.1 W</td>
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<td>Spokane/Sandy Cove</td>
<td>Diversion/Recovery</td>
<td>Divert oil entering South Sandy Cove to shoreline or marine recovery unit.</td>
<td>Use class 2 or 3/4 vessels with deck space to transport equipment. Use class 6 vessels to deploy boom and set anchors. Phase total of 5600 ft. of boom to divert oil to shoreline (or nearshore) depending on tide to marine recovery.</td>
<td>Sailboat, Glacier Bay National Park.</td>
<td>Via marine waters</td>
<td>See SE06-09-01</td>
<td>Divert oil away from mouth of South Sandy Cove.</td>
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<td>a. Lat. 58º 42.7 N Lon. 135º 59.0 W</td>
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<td>b. Lat. 58º 42.5 N Lon. 135º 59.0 W</td>
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<td>c. Lat. 58º 42.5 N Lon. 135º 57.1 W</td>
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<td>Diversion/Recovery</td>
<td>Equipment</td>
<td>5600 ft. protected-water boom. Use class 6 vessels to deploy boom and set anchors. Phase total of 5600 ft. of boom to divert oil to shoreline (or nearshore) depending on tide to marine recovery.</td>
<td>Use class 2 or 3/4 vessels with deck space to transport equipment. Use class 6 vessels to deploy boom and set anchors. Phase total of 5600 ft. of boom to divert oil to shoreline (or nearshore) depending on tide to marine recovery.</td>
<td>Sailboat, Glacier Bay National Park.</td>
<td>Via marine waters</td>
<td>See SE06-09-01</td>
<td>Divert oil away from mouth of South Sandy Cove.</td>
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<td>Spokane/Sandy Cove</td>
<td>Exclusion</td>
<td>Protect mudflats and marsh between Little Puffin and Big Puffin Island. Use exclusion boom to achieve a concave shape.</td>
<td>Use class 2 or 3/4 vessels with deck space to transport equipment. Use class 6 vessels to deploy boom and set anchors. Deploy 2500 ft. of protected-water boom in 1000 and 1500 ft. sections at an angle appropriate for current velocity and direction.</td>
<td>Sailboat, Glacier Bay National Park.</td>
<td>Via marine waters</td>
<td>See SE06-09-01</td>
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<td>Exclusion</td>
<td>Equipment</td>
<td>2500 ft. protected-water boom. Use class 6 vessels to deploy boom and set anchors. Deploy 2500 ft. of protected-water boom in 1000 and 1500 ft. sections at an angle appropriate for current velocity and direction.</td>
<td>Use class 2 or 3/4 vessels with deck space to transport equipment. Use class 6 vessels to deploy boom and set anchors. Deploy 2500 ft. of protected-water boom in 1000 and 1500 ft. sections at an angle appropriate for current velocity and direction.</td>
<td>Sailboat, Glacier Bay National Park.</td>
<td>Via marine waters</td>
<td>See SE06-09-01</td>
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<td>Exclusion</td>
<td>Equipment</td>
<td>2000 ft. protected-water boom. Use class 6 vessels to deploy boom and set anchors. Deploy 2000 ft. of protected-water boom in 1000 and 1500 ft. sections at an angle appropriate for current velocity and direction.</td>
<td>Use class 2 or 3/4 vessels with deck space to transport equipment. Use class 6 vessels to deploy boom and set anchors. Deploy 2000 ft. of protected-water boom in 1000 and 1500 ft. sections at an angle appropriate for current velocity and direction.</td>
<td>Sailboat, Glacier Bay National Park.</td>
<td>Via marine waters</td>
<td>See SE06-09-01</td>
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**SE06-09**

Southeast Alaska Geographic Response Strategies  
June 26, 2003
G. SOUTHEAST ALASKA RESPONSE ZONE 7

Figure G-3-13 provides an overview of the Southeast Alaska response zone 7, identifying the location of each GRS site. Each GRS site has been assigned an identifying number, which has no relevance to the site's protection priority. This section contains geographic response strategies for each numbered site, in numerical order, beginning with SE07-01. Figure G-3-14 shows the location of oil spill response equipment throughout zone 7.

Figure G-3-13. Southeast Alaska Response Zone 7.

Figure G-3-14. Southeast Alaska Response Equipment Locator Map.
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Mendenhall River, SE 07-01

Center of map at 58° 20.1’ N Lat., 134° 37.0’ W Lon.

Legend

- Free-oil Containment and Recovery, Shallow Water
- Diversion Booming
- Protected-water Boom
- Marine Recovery
- Tidal-seal Boom
- Navigational Markers (seasonal)
- Boat Ramp
- Road
- Airport

June 26, 2003

Geographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE07-01-01</td>
<td>Fritz Cove Nearshore waters in the general area of: Lat. 58º 19.6 N Lon. 134º 39.2 W</td>
<td>Free-oil Recovery Maximize free-oil recovery in the offshore &amp; nearshore environment near Mendenhall River</td>
<td>Deploy free-oil recovery strike teams upwind and up-current of Mendenhall River. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>N. Douglas boat ramp or Auke Bay public dock</td>
<td>Via marine waters</td>
<td>Same as SE07-01-02</td>
<td>Vessel masters should have local knowledge.</td>
</tr>
<tr>
<td>SE07-01-02</td>
<td>Mendenhall Bar Boom Segment Locations: Segment a Northwest end Lat. 58º 20.47 N Lon. 134º 38.25 W Southeast end Lat. 58º 19.01 N Lon. 134º 37.10 W Segment b West end Lat. 58º 19.85 N Lon. 134º 36.77 W East end Lat. 58º 19.01 N Lon. 134º 36.38 W</td>
<td>Exclusion Exclude oil for the Mendenhall Bar where the flood tide currents are less than 1 kt.</td>
<td>Use class 2 and class 3/4 vessels with deck space to transport equipment, class 6 setnet or seine skiffs to deploy boom and set sm. anchors. Place boom segment a, ~5,500 ft. of protected-water, boom from Mendenhall Peninsula to entrance of Gastineau Channel. Place boom segment b, ~1,200 ft. of protected-water, boom from entrance of Gastineau Channel to Entrance Point. Tend boom throughout tide. If current exceeds boom’s ability to exclude oil, convert to Divert/Recovery as shown in SE07-01-03.</td>
<td>Use class 2 and class 3/4 vessels with deck space to transport equipment, class 6 setnet or seine skiffs to deploy boom and set sm. anchors. Place three 1,000 protected-water U-boom arrays in the gap of the exclusion boom to collect oil moving on the flood tide current. The mouth of each U-boom should be approximately 330 ft. wide. Use marine recovery units to recover oil collected in booms or gate the U-boom arrays and recover oil concentrated at the gate. Tend throughout the flood tide.</td>
<td>N. Douglas boat ramp or Auke Bay public dock</td>
<td>Via marine waters</td>
<td>Same as SE07-01-02</td>
<td>Fish-krill/tidal salmon/trout spawning (pink, chum, coho, sockeye, steelhead, Dolly Varden, cutthroat) Birds-waterfowl (year-round) and shorebirds (spring and fall) concentrations Habitat: sheltered tidal flats, marsh Human use: high recreational use</td>
</tr>
<tr>
<td>SE07-01-03</td>
<td>Northern End of Gastineau Channel In the general area of: Lat. 58º 19.87 N Lon. 134º 39.95 W</td>
<td>Diversion / Recovery Divert oil to designated marine recovery in areas where the flood tide currents exceed 1 kt.</td>
<td>Use class 2 and class 3/4 vessels with deck space to transport equipment, class 6 setnet or seine skiffs to deploy boom and set sm. anchors. Place three 1,000 protected-water U-boom arrays in the gap of the exclusion boom to collect oil moving on the flood tide current. The mouth of each U-boom should be approximately 330 ft. wide. Use marine recovery units to recover oil collected in booms or gate the U-boom arrays and recover oil concentrated at the gate. Tend throughout the flood tide.</td>
<td>Use class 2 and class 3/4 vessels with deck space to transport equipment, class 6 setnet or seine skiffs to deploy boom and set sm. anchors. Place three 1,000 protected-water U-boom arrays in the gap of the exclusion boom to collect oil moving on the flood tide current. The mouth of each U-boom should be approximately 330 ft. wide. Use marine recovery units to recover oil collected in booms or gate the U-boom arrays and recover oil concentrated at the gate. Tend throughout the flood tide.</td>
<td>N. Douglas boat ramp or Auke Bay public dock</td>
<td>Via marine waters</td>
<td>Same as SE07-01-02</td>
<td>Vessel masters should have local knowledge.</td>
</tr>
</tbody>
</table>

Report any cultural resources found during operations to FOSC Historic Properties Specialist. See Figure G-3-14 for equipment locations. Title 41 permit may be necessary. Contact ADNR. Tested: 6/17/03 SEAPRO Surveyed: 5/2/03, 6/17/03 TLR, SEAPRO, ADEC
Auke Bay West, SE 07-02
Center of map at 58° 22.5' N Lat., 134° 42.6' W Lon.

Soundings in fathoms

Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Deflection Booming
Protected-water Boom
Calm-water Boom
Tidal-seal Boom
Staging Area
Road

Scale

1 nm
1 mi.
1,000 yds.

Legend

Map
Photo
&

1 nm
1 mi.
1,000 yds.

Auke Cape
Indian Pt.
Indian Island
Point Louisa

FO-S
EX
DF

This is not intended for navigational use.

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Deflection Booming
Protected-water Boom
Calm-water Boom
Tidal-seal Boom
Staging Area
Road

Scale

1 nm
1 mile
1,000 yds.

Legend

Map
Photo
&

1 nm
1 mile
1,000 yds.

Auke Cape
Indian Pt.
Indian Island
Point Louisa

FO-S
EX
DF

This is not intended for navigational use.

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Deflection Booming
Protected-water Boom
Calm-water Boom
Tidal-seal Boom
Staging Area
Road

Scale

1 nm
1 mile
1,000 yds.

Legend

Map
Photo
&

1 nm
1 mile
1,000 yds.

Auke Cape
Indian Pt.
Indian Island
Point Louisa

FO-S
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DF

This is not intended for navigational use.
<table>
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<tr>
<th>ID</th>
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<th>Response Strategy</th>
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<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE07-02-01</td>
<td>West Auke Bay (Auke Rec.)</td>
<td>Free-oil Recovery</td>
<td>Deploy free-oil recovery strike teams upwind and up-current of tidal flats. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Auke Bay public dock or state ferry terminal</td>
<td>Via marine waters</td>
<td>Same as SE07-02-02</td>
<td>Vessel masters should have local knowledge.</td>
</tr>
<tr>
<td>SE07-02-02</td>
<td>West Auke Bay (Auke Nu Cove)</td>
<td>Exclusion</td>
<td>Use class 3/4 vessels with deck space to transport equipment. Class 6 seatnet or seine drifts to deploy boom and set anchors.</td>
<td>02a - Place 900 ft. of calm-water boom with tidal seal on each end, at or above low tide line, in Auke Nu Cove. 02b - Deploy at high tide. Place 1700 ft protected-water boom between Indian Island and Indian Point.</td>
<td>Auke Bay public dock or state ferry terminal</td>
<td>Via marine waters</td>
<td>Human use-high recreational use (year-round)  Birds-waterfowl and shorebird concentrations (winter)  Invertebrates-clam bed  Habitat-marsh, kelp and eelgrass beds</td>
<td>Same as SE07-02-01  FOSC Historic Properties  Specialist should MONITOR on-site operations. See Figure G-3-14 for equipment locations.  Tested: not yet  Surveyed: 5/2/03 TLR</td>
</tr>
<tr>
<td>SE07-02-03</td>
<td>West Auke Bay (Indian Point)</td>
<td>Deflection</td>
<td>Place 400 ft. of protected-water boom in a cascade pattern, in 2 sections, to divert oil away from Indian Cove.</td>
<td>Deployment  Equipment  400 ft. protected-water boom  4 ea. anchor systems (~40 lbs.)  Vessels, Personnel, Tending</td>
<td>Auke Bay public dock or state ferry terminal</td>
<td>Via marine waters</td>
<td>Same as SE07-02-02</td>
<td>Close bay to marine traffic. Tested: 6/17/03 SEAPRO  Surveyed: 5/2/03 TLR</td>
</tr>
</tbody>
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**SE07-02**
Point Couverden, SE 07-03

This is not intended for navigational use.

Soundings in fathoms

Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Passive Recovery and Debris Removal
Deflection Booming, Fixed
Protected-water Boom
Gate
Marine Recovery
Tidal-seal Boom
Salmon Spawning Stream
Private Cabin

SE07-03-02b and 03a-e Looking southwest into the cove behind Couverden Island.

SE07-03-02a Looking north at the salmon stream at the head of Swanson Harbor.

SE07-03-03a-h Looking north over Couverden Island.
<table>
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<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected</th>
<th>Special Considerations</th>
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<tbody>
<tr>
<td>SE07-03-01</td>
<td>Point Couverden - NE and NW Nearshore waters in the general area of: Lat. 58º 11.0 N Lon. 135º 02.7 W</td>
<td>Free-oil Recovery</td>
<td>Deploy free-oil recovery strike teams upwind and up-current of Pt. Couverden. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Auke Bay or vessel platform</td>
<td>Via marine waters NOAA chart 17316</td>
<td>Same as SE07-03-02</td>
<td>Vessel masters should have local knowledge. Tactics on the west side of Couverden Island should only be deployed when winds are from the SE.</td>
</tr>
<tr>
<td>SE07-03-02</td>
<td>Point Couverden West Boom Arrays a. Lat. 58º 13.22 N Lon. 135º 08.17 W b. Lat. 58º 14.06 N Lon. 135º 05.69W</td>
<td>Exclusion</td>
<td>Exclude oil from salmon stream in Swanson Harbor and entering the eastern entrance to Swanson Harbor. Establish a gate in the eastern array.</td>
<td>Use protected-water boom with tidal-seal to exclude oil from salmon stream and Swanson Harbor.</td>
<td>Auke Bay or vessel platform</td>
<td>Via marine waters NOAA chart 17316</td>
<td>--</td>
<td>Types of animals and habitats that are protected</td>
</tr>
<tr>
<td>SE07-03-03</td>
<td>Point Couverden East Boom Arrays a. Lat. 58º 13.3 N Lon. 139º 08.0 W b. Lat. 58º 14.03 N Lon. 139º 04.35 W c. Lat. 58º 13.06 N Lon. 139º 02.97W d. Lat. 58º 13.55 N Lon. 139º 04.99 W e. Lat. 58º 13.29 N Lon. 139º 04.8 W f. Lat. 58º 12.86 N Lon. 139º 04.57W g. Lat. 58º 11.97N Lon. 139º 03.88W h. Lat. 58º 11.48N Lon. 139º 03.33W</td>
<td>Deflection</td>
<td>Deflect oil away from northeast side of Couverden Island towards free oil strike teams.</td>
<td>Place protected-water boom at given locations on the northeast side of Couverden Island to deflect oil traveling south and west.</td>
<td>Auke Bay or vessel platform</td>
<td>Via marine waters NOAA chart 17316</td>
<td>See SE07-03-02</td>
<td>This tactic is based on currents flowing south and the presumption that oil is spilled north of Pt. Couverden in Lynn Canal.</td>
</tr>
<tr>
<td>SE07-03-04</td>
<td>Point Couverden Lat. 58º 14.1 N Lon. 139º 06.24W</td>
<td>Passive Recovery</td>
<td>Minimize impact to designated area through passive recovery using snare line or sorbent boom.</td>
<td>Place 800 ft. of snare line or sorbent boom across the tidal flats and stream mouth.</td>
<td>Auke Bay or vessel platform</td>
<td>Via marine waters NOAA chart 17316</td>
<td>See SE07-03-02</td>
<td>Use snare line for persistent oils and sorbent boom for non-persistent oils.</td>
</tr>
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**Resources Protected:**
- Fish
- Intertidal salmon spawners (pink, coho, chum)
- Birds: waterfowl (year-round) and shorebird (spring-fall) concentrations
- Habitat: high intertidal diversity, marsh, sheltered tidal flats
- Human use: high recreational use
- Invertebrates: crabs, blue mussels

**Special Considerations:**
- Vessel masters should have local knowledge.
- Tactics on the west side of Couverden Island should only be deployed when winds are from the SE.
- Surface current always flows south on the west side of Lynn Canal. Oil will move toward Whitestone Harbor.
- FOSC Historic Properties Specialist should inspect site prior to operations.
Point Bridget/Echo Cove, SE 07-04

Center of map at 58° 40.9' N Lat., 134° 57.4' W Lon.

SE07-04-02 & 05 Point Bridget looking south towards Cowee Creek.

Legend

- Free-oil Containment and Recovery, Shallow Water
- Exclusion Booming
- Deflection Booming, Fixed
- Passive Recovery and Debris Removal
- Tidal-seal Boom
- Snare Line
- Public Use Cabin
- Mooring
- ATV Trail
- Road
- Boat Ramp
- Protected-water Boom

SE07-04-03a,b & 04 Looking south into Echo Cove.

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<tbody>
<tr>
<td>SE07-04-01</td>
<td>Point Bridget, Echo Cove</td>
<td>Free-oil Recovery -</td>
<td>Deploy free-oil recovery strike teams upwind and up-current of Bridget Cove.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of</td>
<td>Juneau</td>
<td>Via mariner water</td>
<td>Same as SE04-07-02</td>
<td>Vessel master should have local knowledge.</td>
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<td>Nearshore waters in the general area of:</td>
<td>Shallow Water -</td>
<td>Use aerial surveillance to locate incoming slicks.</td>
<td>oil before it impacts sensitive areas.</td>
<td>Echo Cove</td>
<td>Chart 17316</td>
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<td>Lat. 58º 41.1 N</td>
<td>Maximize free-oil recovery in the offshore &amp; nearshore environment of Point Bridget and Echo Cove depending on spill source and trajectory.</td>
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<td>Vessel platform</td>
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<tr>
<td>SE07-04-02</td>
<td>Cowee Creek Lagoon</td>
<td>Exclusion</td>
<td>Deploy tidal-seal boom and protected water boom with fishing vessels and skiffs across the entrance to Cowee Creek and adjacent tidal marsh. Establish apex to maximize deflection of oil. Tend throughout the tides.</td>
<td>Deployment: 1800 ft. protected water boom 2 ea. 25 ft. sections tidal-seal boom 18 ea. anchor systems (~20 lbs.) 4 ea. anchor stakes Vessels: 2 ea. class 3/4 2 ea. class 6 Personnel/Shift: 10 ea. vessel crew Tending: Vessels: 1 ea. class 3/4 1 ea. class 6 Personnel/Shift: 3 ea. vessel crew</td>
<td>See SE07-04-01</td>
<td>Via mariner waters</td>
<td>Chart 17316</td>
<td>Vehicles should have local knowledge. The church camp at Echo Cove has a landing craft that might be available for response efforts. The area is a natural collection spot during winds. See Figure G-3-14 for equipment locations. FOSC Historic Properties Specialist should INSPECT site prior to operations. Tested: not yet Surveyed: 4/28/03 TLR</td>
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<tr>
<td>SE07-04-03</td>
<td>Entrance to Echo Cove</td>
<td>Definition-Fixed</td>
<td>Transport equipment to site by marine vessel (class 2/3/4). Place boom and anchors with fishing vessels and skiffs. Position boom at appropriate angle to deflect oil from Echo Cove and set up for shore side recovery.</td>
<td>Deployment: Equipment 1200 ft. protected water boom 4 ea. anchor stakes 10 ea. anchor systems (~40 lbs.) Vessel: Personnel/Shift: Tending Same as SE07-04-02</td>
<td>See SE07-04-01</td>
<td>Via mariner waters</td>
<td>Chart 17316</td>
<td>State Park lands. Uncharted submerged rocks are present in the immediate area. Bears in area. Title 41 permit may be necessary. Contact ADNR. Tested: not yet Surveyed: 4/28/03 TLR</td>
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<tr>
<td>SE07-04-04</td>
<td>Entrance to Echo Cove</td>
<td>Diversion/Recovery</td>
<td>Use class 6 skills to deploy boom and set anchors. Place 600 ft. of boom to divert oil to shore side for recovery. Establish recovery site on the sandbar extending into the mouth of the cove.</td>
<td>Deployment: Equipment 600 ft. protected water boom 6 ea. ~40 lbs anchor systems 2 ea. Anchor stakes 3 ea. shore side recovery unit Vessel: Personnel/Shift: Tending Same as SE07-04-02 plus 2 ea. response techs</td>
<td>See SE07-04-01</td>
<td></td>
<td>Chart 17316</td>
<td>Tested: not yet Surveyed: 4/28/02 TLR. Prevailing SE winds.</td>
</tr>
<tr>
<td></td>
<td>Lat. 58º 40.3 N</td>
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<td></td>
<td>Lon. 134º 55.68 W</td>
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<tr>
<td>SE07-04-05</td>
<td>Cowee Creek Lagoon</td>
<td>Passive Recovery</td>
<td>Place 1000 ft. of shoreline or sorbent boom across the tidal flats and stream mouth in the entrance to the lagoon.</td>
<td>Deployment: Equipment 1000 ft. shoreline or sorbent boom 10 ea. anchor stakes Vessels, Personnel, Tending Same as SE07-04-02</td>
<td>See SE07-04-01</td>
<td>Via mariner waters</td>
<td>Chart 17316</td>
<td>Use shoreline for persistent oils and sorbent boom for non-persistent oils. Surveyed: 4/28/02 TLR</td>
</tr>
<tr>
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<td>Lat. 58º 40.4 N</td>
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<td></td>
<td>Lon. 134º 57.0 W</td>
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</table>
St. James Bay, SE 07-05

Legend

- Free-oil Containment and Recovery, Shallow Water
- Exclusion Booming
- Diversion Booming, Fixed
- Passive Recovery and Debris Removal
- Protected-water Boom
- Calm-water Boom
- Tidal-seal Boom
- Snare Line
- Marine Recovery
- Shoreside Recover, Marine Access
- Bears in Area, Guards Needed
- Salmon Spawning Stream
- Public Use Cabin

June 26, 2003

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming, Fixed
Passive Recovery and Debris Removal
Protected-water Boom
Calm-water Boom
Tidal-seal Boom
Snare Line
Marine Recovery
Shoreside Recover, Marine Access
Bears in Area, Guards Needed
Salmon Spawning Stream
Public Use Cabin

Map

Photo

SE07-05 Looking north into St. James Bay.

SE07-05 Looking southwest at the Lynn Brothers Islands.

SE07-05 Looking northwest in St. James Bay.

SE07-05-02d Overlooking the stream at the mouth of St. James Bay.

This is not intended for navigational use.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE07-05-01</td>
<td>St. James Bay</td>
<td>Nearshore waters in the general area of: Lat. 58º35.9 N Lon. 135º10.7 W</td>
<td>Free-oil Recovery-Shallow Water</td>
<td>Maximize free-oil recovery in the offshore &amp; nearshore environment of St. James Bay depending on spill source and trajectory.</td>
<td>Junesau Harbor Amaiglo Harbor Echo Cove</td>
<td>Same as SE07-05-02</td>
<td>Same as SE07-05-02</td>
<td>Vessel master should have local knowledge.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Deploy free-oil recovery strike teams upwind and up-current of St. James Bay. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td></td>
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<tr>
<td>SE07-05-02</td>
<td>St. James Bay</td>
<td>Lat. 58º34.39 N Lon. 135º10.93 W</td>
<td>Exclusion</td>
<td>Exclude oil from entering the west side of St. James Bay and the estuary mouth of the Bay.</td>
<td>Same as SE07-05-02</td>
<td>Same as SE07-05-02</td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td>Deploy tid-line (on boom (c)), protected water boom and anchors with fishing vessels and skiffs (class 3/4/6) across identified areas to exclude oil from entering the identified environmentally sensitive areas.</td>
<td>Tend throughout the tide.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Boom Lengths</td>
<td>a. 1300 ft.</td>
<td>5 ea. vessel crew</td>
<td>Tending</td>
<td>Vessels</td>
<td>1 ea. class 3/4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>b. 2000 ft</td>
<td>2 ea. class 3/4</td>
<td></td>
<td></td>
<td>2 ea. class 6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>c. 900 ft</td>
<td>2 ea. class 2 (transport equipment)</td>
<td></td>
<td></td>
<td>Personnel SNR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>d. 1000 ft</td>
<td>2 ea. class 6</td>
<td></td>
<td></td>
<td>5 ea. vessel crew</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Deployment Equipment</td>
<td>1200 ft. protected-water boom</td>
<td>44 ea. anchor systems (~20 lbs.)</td>
<td>2400 ft. calm-water boom</td>
<td>2 ea. vessel crew and 1 ea. shoreside recovery unit</td>
<td>1 ea. class 3/4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 ea. class 2 (transport equipment)</td>
<td>2 ea. class 3/4</td>
<td></td>
<td>Vessels</td>
<td>Personnel SNR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 ea. class 6</td>
<td>20 ea. anchor stakes</td>
<td></td>
<td></td>
<td>5 ea. vessel crew</td>
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<tr>
<td>SE07-05-03</td>
<td>St. James Bay</td>
<td>Lat. 58º34.81 N Lon. 135º11.04 W</td>
<td>Divert / Shoreside Recovery</td>
<td>Divert oil entering behind the Lynn Brothers for shoreside recovery.</td>
<td>Same as SE07-05-03</td>
<td>Same as SE07-05-02</td>
<td></td>
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<td></td>
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<td></td>
<td>Deploy anchors and boom with skiffs and fishing vessels (class 3/4/6). Place 5000 ft. sections of calm water boom extending from identified point to divert oil into a collection area in St. James Bay.</td>
<td>Establish shoreside recovery unit at a point that maximizes recovery of oil.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Tend throughout the tide.</td>
<td>Boom Lengths</td>
<td>a. 1300 ft.</td>
<td>Same as SE07-05-02</td>
<td>Same as SE07-05-02</td>
<td>Tested: not yet</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>b. 2000 ft</td>
<td>Same as SE07-05-02</td>
<td>Same as SE07-05-02</td>
<td></td>
<td>Surveyed: 4/28/03 TLR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>c. 900 ft</td>
<td>Same as SE07-05-02</td>
<td>Same as SE07-05-02</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>d. 1000 ft</td>
<td>Same as SE07-05-02</td>
<td>Same as SE07-05-02</td>
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<td></td>
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<tr>
<td>SE07-05-04</td>
<td>St. James Bay Anchor Locations</td>
<td>Lat. 58º20.20 N Lon. 134º38.23 W</td>
<td>Diversion / Marine Recovery</td>
<td>Divert oil to designated recovery vessels.</td>
<td>Same as SE07-05-04</td>
<td>Same as SE07-05-02</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Use class 3/4 setnet or seine skiffs to deploy boom and set anchors. Place calm-water boom in a chevron pattern to maximize the recovery of oil between the islands.</td>
<td>Recover oil with marine vessels at the apex.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Deployment Equipment</td>
<td>3000 ft. calm-water boom</td>
<td>20 ea. anchor stakes</td>
<td>2400 ft. calm-water boom</td>
<td>6 ea. anchor stakes</td>
<td>1 ea. marine recovery unit</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td>4 ea. anchor stakes</td>
<td>2 ea. anchor systems (~40 lbs.)</td>
<td>4 ea. anchor stakes</td>
<td>1 ea. anchor system (~40 lbs.)</td>
<td>1 ea. response techs</td>
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<td></td>
<td></td>
<td></td>
<td>30 ea. anchor systems (~40 lbs.)</td>
<td>1 ea. shoreside recovery unit</td>
<td></td>
<td></td>
<td>5200 ft. protected-water boom</td>
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<td></td>
<td></td>
<td></td>
<td>1 ea. class 3/4</td>
<td>20 ea. anchor stakes</td>
<td></td>
<td></td>
<td>4 ea. anchor stakes</td>
</tr>
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<td></td>
<td></td>
<td>2 ea. class 6</td>
<td>18 ea. vessel crew</td>
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<td>Personnel SNR</td>
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<td></td>
<td></td>
<td></td>
<td>5 ea. vessel crew</td>
<td>Same as SE07-05-02</td>
<td>Same as SE07-05-02</td>
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<tr>
<td>SE07-05-05</td>
<td>St. James Bay Tidal Flats</td>
<td>a. Lat. 58º39.95 N Lon. 135º12.93 W b. Lat. 58º37.35 N Lon. 135º12.03 W c. Lat. 58º37.35 N Lon. 135º11.13 W</td>
<td>Passive Recovery</td>
<td>Use passive recovery as dictated by conditions to minimize impact to the tidal flats.</td>
<td>Same as SE07-05-05</td>
<td>Same as SE07-05-05</td>
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<tr>
<td></td>
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<td></td>
<td>Place snare line or sorbent boom across the entrance to the tidal flats.</td>
<td>Anchor with stakes. Replace as necessary to maximize recovery of oil.</td>
<td>Same as SE07-05-05</td>
<td>Same as SE07-05-05</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Boom Lengths</td>
<td>a. 2000 ft.</td>
<td>Same as SE07-05-05</td>
<td>Same as SE07-05-05</td>
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<tr>
<td></td>
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<td></td>
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<td>b. 1200 ft.</td>
<td>Same as SE07-05-05</td>
<td>Same as SE07-05-05</td>
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</tbody>
</table>
Berners Bay, SE 07-06

Center of map at 58° 44' N Lat., 134° 59' W Lon.

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Passive Recovery and Debris Removal
Calm-water Boom
Snare Line
Road
Cabin

This is not intended for navigational use.

Legend

Map & Photo

SE07-06 Looking northwest in Berners Bay.

SE07-06-02 & 03a Looking north over Slate Creek in Berners Bay.

SE07-06-03b & 04 The northeast corner of Berners Bay.

Map

Photo

Soundings in fathoms

June 26, 2003

Geographic Response Strategies for Southeast Alaska Subarea

FO-S
PR
EX
02a
01
02b
01
03a
03b

Flood Tide
Fresh Water
<table>
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<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE07-06-01</td>
<td>Berners Bay</td>
<td>Free-oil Recovery</td>
<td>Deploy free-oil recovery strike teams. Use aerial surveillance to locate areas of heavy slick concentrations.</td>
<td>Two free-oil recovery strike teams to intercept oil before it impacts sensitive areas.</td>
<td>Juneau</td>
<td>Via marine waters</td>
<td>See SE07-06-03</td>
<td>Title-41 permit may be necessary. Contact ADNR. Bears in area. See Figure G-3-14 for equipment locations.</td>
</tr>
<tr>
<td></td>
<td>Lat. 58º 44 N Lon. 134º 59 W (approximate location)</td>
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<td></td>
<td>Amalga Harbor Echo Cove</td>
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<td></td>
<td></td>
<td>Same as SE07-06-01</td>
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<td></td>
</tr>
<tr>
<td>SE07-06-02</td>
<td>Berners Bay</td>
<td>Exclusion</td>
<td>Transport equipment by vessel (class 2/3/4) from staging area. Deploy calm-water boom and anchors with fishing vessels and skiffs (class 3/4/6) across the mouth of Slate Creek and the creek on the east side of the bay to exclude oil from entering the identified environmentally sensitive areas.</td>
<td>Transport equipment by vessel (class 2/3/4) from staging area. Deploy calm-water boom and anchors with fishing vessels and skiffs (class 3/4/6) across the mouth of Slate Creek and the creek on the east side of the bay to exclude oil from entering the identified environmentally sensitive areas.</td>
<td>Vessel platform</td>
<td>Same as SE07-06-01</td>
<td>See SE07-06-03</td>
<td>Vessel master should have local knowledge. FOSIC Historic Properties Specialist should INSPECT site prior to operations. See Figure G-3-14 for equipment locations. Echo Cove launch may be restricted by low tide and winter road conditions. Bears in area. Tested: not yet Surveyed: 4/28/03 TLR</td>
</tr>
<tr>
<td></td>
<td>Lat. 58º 47.3 N Lon. 135º 01.8 W</td>
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<td></td>
<td>Same as SE07-06-01</td>
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<tr>
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<td>Lat. 58º 46.88 N Lon. 134º 56.79W</td>
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<td>Same as SE07-06-01</td>
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<td></td>
<td>Same as SE07-06-01</td>
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</tr>
<tr>
<td>SE07-06-03</td>
<td>Berners Bay</td>
<td>Passive Recovery</td>
<td>Place snare line or sorbent boom across intertidal areas in front of Slate Creek and on the east side in areas where high tides may flow through low spots in the storm boom. Replace oiled sections as needed using marine vessels.</td>
<td>Place snare line or sorbent boom across intertidal areas in front of Slate Creek and on the east side in areas where high tides may flow through low spots in the storm boom. Replace oiled sections as needed using marine vessels.</td>
<td>Same as SE07-06-01</td>
<td>marine mammals-harbor seals haulout, Steller sea lion feeding (spring-eulachon run) Fish-intertidal salmon/trout spawning (coho, pink, chum, sockeye, Dolly Varden, cutthroat) (summer-fall), herring spawning (spring), eulachon spawning (spring) Birds-waterfowl, gulls, shorebirds Habitat-marsh, tidal flats Human use-high recreational use Terrestrial mammals-bears</td>
<td>Approximate locations (Note: This is a dynamic river delta, particularly the east side. Site survey required immediately before deployment to identify best deployment locations.) Higher tides (~16 ft.) require additional boom. Use snare line for persistent oils and sorbent boom for non-persistent. Place boom during high tide to ensure oil is not pushed into substrate by deployment activity.</td>
<td>Surveyed: 4/28/03 TLR</td>
</tr>
<tr>
<td></td>
<td>Lat. 58º 47.3 N Lon. 135º 01.8 W</td>
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<td>Same as SE07-06-01</td>
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<tr>
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<td>Lat. 58º 46.9 N Lon. 134º 56.9 W</td>
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<td>Same as SE07-06-01</td>
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<td></td>
<td></td>
<td>Same as SE07-06-01</td>
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</table>
**H. SOUTHEAST ALASKA RESPONSE ZONE 8**

Figure G-3-15 provides an overview of the Southeast Alaska response zone 8, identifying the location of each GRS site. Each GRS site has been assigned an identifying number, which has no relevance to the site's protection priority. This section contains geographic response strategies for each numbered site, in numerical order, beginning with SE08-01. Figure G-3-16 shows the location of oil spill response equipment throughout zone 8.

Figure G-3-15. Southeast Alaska Response Zone 8.

### SELECTED SITES for GEOGRAPHIC RESPONSE STRATEGIES

<table>
<thead>
<tr>
<th>Site</th>
<th>Location</th>
<th>SEAPRO</th>
<th>USCG</th>
<th>ADEC</th>
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<tr>
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<td>Chilkat River</td>
<td>X</td>
<td>X</td>
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<tr>
<td>8-02</td>
<td>Taiya River</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8-03</td>
<td>Lutak/Chilkoot River</td>
<td>X</td>
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</tr>
</tbody>
</table>

Figure G-3-16. Southeast Alaska Response Equipment Locator Map.
Chilkat River, SE 08-01

Map

Legend

Free-oil Containment and Recovery, Shallow Water
Diversion Booming
Deflection Booming, Fixed
Protected-water Boom
Tidal-seal Boom
Shoreside Recovery

Soundings in fathoms

Center of map at 59° 06.4' N Lat., 135° 22.4' W Lon.

June 26, 2003

Free-oil Containment and Recovery, Shallow Water
Diversion Booming
Deflection Booming, Fixed
Protected-water Boom
Tidal-seal Boom
Shoreside Recovery

Geographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
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<tbody>
<tr>
<td>SE08-01-01</td>
<td>Chilkat River Nearshore waters in the general area of Lat. 59º 06.5 N Lon. 135º 22.65W</td>
<td>Free-oil Recovery-Shallow Water</td>
<td>Deploy free-oil recovery strike teams upwind and up-current of Chilkat River depending on spill source and trajectory. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Haines Harbor</td>
<td>Via marine waters Chart 17317</td>
<td>Same as SE08-01-02</td>
<td>Vessel master should have local knowledge. Tested: not yet</td>
</tr>
<tr>
<td>SE08-01-02</td>
<td>Kalhagu Cove Lat. 59º 06.57N Lon. 135º 21.68W</td>
<td>Divert and Recove Divert oil to shore-side recovery points within Kalhagu Cove determined by spill source and trajectory. Transport equipment by vessel (class 2/3/4) from Haines. Deploy anchors and boom with fishing vessels and skiffs (class 3/4/6). Place protected-water boom at the proper angle to divert oil to recovery site. Set-up recovery unit and tend throughout the tide.</td>
<td>Deployment Equipment: 1600 ft. protected-water boom 1 section x 50 ft. section tidal-seal boom 16 ea. anchor systems (~40 lbs.) 4 ea. anchor stakes 1 ea. shore-side recovery unit. Vessels 2 ea. class 3/4 2 ea. class 6 Personnel / Shift: 10 ea. vessel crew 3 ea. response techs. Tending Vessels: 1 ea. class 3/4 1 ea. class 6 Personnel / Shift: 4 ea. vessel crew 2 ea. response techs.</td>
<td>Vessel platform</td>
<td>Via marine waters</td>
<td>Fish-eulachon spawning, intertidal salmon/trout spawning (~10,000 coho, pink, chum, king, sockeye, steelhead, Dolly Varden, cutthroat) (summer-fall), herring spawning, whitefish spawning Bird's waterfowl and shorebirds migration, molting, and winter concentration, bald eagle concentration &gt;3000 (late fall-early winter) Human use High-use substance (salmon), intensive commercial salmon fishing, high recreational use Territorial mammals-bears</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE08-01-03</td>
<td>Glacier Point Lat. 59º 06.22N Lon. 135º 23.38W</td>
<td>Deflection-Fixed Deflect oil from Glacier Point away from the mouth of the nearby river back into the channel for recovery. Maximize the deflection of oil to the center of the inlet for free-oil recovery.</td>
<td>Place boom and anchor system with fishing vessels and skiffs (class 3/4/6) Position boom at adequate angle to deflect oil from the mouth of nearby river and set up free-oil recovery</td>
<td>Deployment Equipment: 1600 ft. protected-water boom 1 ea. 50 ft. tidal-seal boom 3 ea. anchor stakes 10 ea. anchor systems (~30 lbs.) Vessels, Personnel / Shift, Tending: Same as SE-08-01-02</td>
<td>Vessel platform</td>
<td>Via marine waters</td>
<td>Same as SE08-01-02</td>
<td>Vessel master should have local knowledge. Tested: not yet</td>
</tr>
</tbody>
</table>
Taiya River, SE 08-02

Center of map at 59° 28.6’ N Lat., 135° 19.9’ W Lon.

Legend
- Free-oil Containment and Recovery, Shallow Water
- Diversion Booming
- Protected-water Boom
- Tidal-seal Boom
- Shoreside Recovery
- Road
- Campground

June 26, 2003

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<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE08-02-01</td>
<td>Taiya River Nearshore waters in the general area of: Lat. 59º 27.9 N Lon. 135º 21.3 W</td>
<td>Free-oil Recovery</td>
<td>Maximize free-oil recovery in the offshore &amp; nearshore environment at the head of Taiya Bay.</td>
<td>Deploy free-oil recovery strike teams upwind and up-current of Taiya River. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams, as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Skagway and along road</td>
<td>Same as SE08-02-02</td>
<td>Sand flat full of historical pilings (navigation hazard). Prevailing wind from south. Choppy waters common. Vessel masters should have local knowledge. Taiya River is within National Park. Title 41 permit may be necessary. Contact ADNR.</td>
</tr>
<tr>
<td>SE08-02-02</td>
<td>Taiya River Lat. 59º 28.9 N Lon. 135º 21.3 W</td>
<td>Diversion / Recovery</td>
<td>Divert oil to east side of bay for shoreside recovery.</td>
<td>Transport equipment by truck: class 6 river skiffs to set boom and anchors. Place 4600 ft. of protected-water boom, with tidal-seal on the end, to divert oil to shoreside recovery site on east side of bay. Deploy at high tide. Tend on flood tide.</td>
<td>Deployment: Equipment 4600 ft. protected-water boom 48 ea. anchor systems (~40 lbs.) 50 ft. tidal-seal boom 2 ea. anchor stakes 1 ea. shoreside recovery unit Vessels/Vehicles 3 ea. 4 wheeler 2 ea. 4x4 truck 1 ea. transport truck 2 ea. class 6 Personnel / Shift 11 ea. crew</td>
<td>Skagway and along road</td>
<td>May be able to access road from Skagway. Dirt road along middle of Taiya River flat (sand). Dirt road across delta on sand bar.</td>
<td>Marine mammals—harbor seal concentration, high concentration Steller sea lion feeding (spring-eulachon runs) Fish-eulachon spawning, intertidal salmon/tidal spawning (coho, chum, pink, king, Dolly Varden) Birds—waterfowl and shorebird concentration (spring &amp; fall) Habitat—marsh, sheltered tidal flats, sheltered rocky shore Human use—high recreational use Land management—National Park</td>
</tr>
<tr>
<td>SE08-02-03</td>
<td>Taiya River Lat. 59º 29.4 N Lon. 135º 20.9 W</td>
<td>Diversion / Recovery</td>
<td>Divert oil to east side of bay for shoreside recovery.</td>
<td>Place 1600 ft. of protected-water boom, in a cascade array, with eight 200 ft. sections, and tidal-seal on the end, to divert oil to shoreside recovery site on east side of bay.</td>
<td>Deployment: Equipment 1600 ft. protected-water boom 17 ea. anchor systems (~40 lbs.) 50 ft. tidal-seal boom 2 ea. anchor stakes 1 ea. shoreside recovery unit Vessels/Vehicles 2 ea. 4x4 truck 3 ea. 4 wheeler 2 ea. class 6 Personnel / Shift 6 ea. crew</td>
<td>Skagway and along road</td>
<td>Same as SE08-02-02</td>
<td>Marine mammals—harbor seal concentration, high concentration Steller sea lion feeding (spring-eulachon runs) Fish-eulachon spawning, intertidal salmon/tidal spawning (coho, chum, pink, king, Dolly Varden) Birds—waterfowl and shorebird concentration (spring &amp; fall) Habitat—marsh, sheltered tidal flats, sheltered rocky shore Human use—high recreational use Land management—National Park</td>
</tr>
<tr>
<td>SE08-02-04</td>
<td>Taiya River Lat. 59º 29.8 N Lon. 135º 20.9 W</td>
<td>Diversion / Recovery</td>
<td>Divert oil to east side of bay for shoreside recovery.</td>
<td>Place 1000 ft. of protected-water boom, in a cascade array, with five 200 ft. sections, and tidal-seal on the end, to divert oil to shoreside recovery site on east side of bay.</td>
<td>Deployment: Equipment 1000 ft. protected-water boom 12 ea. anchor systems (~40 lbs.) 50 ft. tidal-seal boom 2 ea. anchor stakes 1 ea. shoreside recovery unit Vessels/Vehicles 2 ea. 4x4 truck 3 ea. 4 wheeler 2 ea. class 6 Personnel / Shift 6 ea. crew</td>
<td>Skagway and along road</td>
<td>Same as SE08-02-02</td>
<td>Marine mammals—harbor seal concentration, high concentration Steller sea lion feeding (spring-eulachon runs) Fish-eulachon spawning, intertidal salmon/tidal spawning (coho, chum, pink, king, Dolly Varden) Birds—waterfowl and shorebird concentration (spring &amp; fall) Habitat—marsh, sheltered tidal flats, sheltered rocky shore Human use—high recreational use Land management—National Park</td>
</tr>
</tbody>
</table>
Chilkoot River, SE 08-03

Legend

- Free-oil Containment and Recovery, Shallow Water
- Passive Recovery and Debris Removal
- Diversion Booming
- Protected-water Boom
- Tidal-seal Boom
- Snare Line
- Marine Recovery
- Bears in Area, Guards Needed
- Road
- ATV Trail
- Campground

Map

Photo

June 26, 2003

Geographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location and Description</th>
<th>Response Strategy</th>
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<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE08-03-01</td>
<td>Lutak Inlet Nearshore waters in the general area of: Lat. 59º 17.8 N Lon. 135º 28.6 W</td>
<td>Free-oil Recovery - Shallow Water</td>
<td>Deploy free-oil recovery strike teams upwind and up-current of Chilkoot River depending on spill source and trajectory. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Haines Ferry Terminal</td>
<td>Via marine waters Chart 17317</td>
<td>Same as SE08-03-02</td>
<td>Vessel master should have local knowledge. Tested: not yet. Use snare line for persistent oils and sorbent boom for non-persistent oils. FOSC Historic Properties Specialist should MONITOR on-site operations. Title 41 permit may be necessary. Contact ADNR. See Figure G-3-16 for equipment locations. Fish weirs may be present. Bears in area. Tested: not yet.</td>
</tr>
<tr>
<td>SE08-03-02</td>
<td>Chilkoot River Chilkoot River Lat. 59º 10.27 N Lon. 135º 33.32 W Taiyasanka Harbor Lat. 59º 18.64 N Lon. 135º 25.94 W</td>
<td>Passive Recovery Minimize impact to the tidal flats through use of passive recovery of oil.</td>
<td>Place snare line or sorbent boom, depending on oil types, across the entrance to the tidal flats at both locations. Anchor with stakes. Replace as necessary to maximize recovery of oil. Boom Lengths a. 2000 ft. b. 2400 ft.</td>
<td>Deployment Equipment 4400 ft. of snare line or sorbent boom, 50 anchor stakes.</td>
<td>Vessel platform Campground on river</td>
<td>Via marine waters Chart 17317</td>
<td>Same as SE08-03-02</td>
<td>Fish-eulachon spawning, salmon/trout spawning (coho, pink, chum, sockeye, Dolly Varden, cutthroat) Birds-waterfowl concentration, particularly along lower southern shore of Lutak Inlet (year-round) Human use-subistence (fish and intertidal invertebrates), commercial fishing (salmon), high recreational use Terrestrial mammals-bears</td>
</tr>
<tr>
<td>SE08-03-03</td>
<td>Taiyasanka Harbor Lat. 59º 17.86 N Lon. 135º 25.81 W</td>
<td>Divert and Recover Divert oil to shoreside recovery points determined by spill source and course.</td>
<td>Deploy anchors and boom with fishing vessels and skiffs (class 3/4/6). Place protected-water boom across the entrance to the harbor at the proper angle to divert oil to recovery site. Set-up recovery unit and tend throughout the tide.</td>
<td>Deployment Equipment 600 ft. protected-water boom 1 ea. 250 ft. section tidal-seal boom 6 ea. anchor systems (~30 lbs.) 6 ea. anchor stakes 1 ea. shoreside or marine recovery unit</td>
<td>Vessel platform Campground on river</td>
<td>Via marine waters Chart 17317</td>
<td>Same as SE08-03-02</td>
<td>Take appropriate measures as outlined in Part 2 of this document to protect the beach at the recovery site. Tested: not yet.</td>
</tr>
</tbody>
</table>
I. **SOUTHEAST ALASKA RESPONSE ZONE 9**

Figure G-3-17 provides an overview of the Southeast Alaska response zone 9, identifying the location of each GRS site. Each GRS site has been assigned an identifying number, which has no relevance to the site’s protection priority. This section contains geographic response strategies for each numbered site, in numerical order, beginning with SE09-01. Figure G-3-18 shows the location of oil spill response equipment throughout zone 9.

![Figure G-3-17. Southeast Alaska Response Zone 9.](image)

![Figure G-3-18. Southeast Alaska Response Equipment Locator Map.](image)
Ankau Lagoon, SE 09-01

Legend

- Free-oil Containment and Recovery, Shallow Water
- Exclusion Booming
- Diversion Booming
- Protected-water Boom
- Tidal-seal Boom
- Shoreside Recovery, Marine Access
- Marsh
- Arctic and Aleutian Terns Nesting

June 26, 2003

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
Protected-water Boom
Tidal-seal Boom

Shoreside Recovery, Marine Access
Marsh
Arctic and Aleutian Terns Nesting

Geographic Response Strategies for Southeast Alaska Subarea

This is not intended for navigational use.
<table>
<thead>
<tr>
<th>ID</th>
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<th>Response Strategy</th>
<th>Implementation</th>
<th>Response Resources</th>
<th>Staging Area</th>
<th>Site Access</th>
<th>Resources Protected (months)</th>
<th>Special Considerations</th>
</tr>
</thead>
</table>
| SE09-01-01 | **Ankau Lagoon**  
Nearshore waters in the general area of:  
\( a \). Lat. 59º 32.90 N  
Lon. 139º 47.53 W  
\( b \). Lat. 59º 32.74 N  
Lon. 139º 49.17 W  
\( c \). Lat. 59º 32.53 N  
Lon. 139º 49.92 W | Free-oil Recovery-Shallow Water  
Maximize free-oil recovery in the offshore & nearshore environment of Ankau Lagoon. | Deploy free-oil recovery strike teams near Ankau Lagoon.  
Use aerial surveillance to locate incoming slicks. | Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas. | Yakutat harbor | Via marine waters  
Chart 36761-1 | Same as SE09-01-02 | Vessel masters should have local knowledge |
| SE09-01-02 | **Ankau Lagoon**  
Lat. 59º 32.64 N  
Lon. 139º 48.36 W | Divert and Recover  
Divert oil to shoreside recovery points determined by spill source and course. | Transport equipment by vessel (class 3/4).  
Deploy anchors and boom with fishing vessels and shift (class 6).  
Place protected-water boom in 2 arrays of four 200 ft. boom strings deployed as indicated on chart on the north shore to divert oil to recovery site on beach.  
Place 2 arrays on south shore as indicated to recovery point.  
Set up recovery unit and tend throughout the tide. | Deployment  
Equipment  
1200 ft. protected-water boom  
2 sections 50 ft. tidal-seal boom  
12 ea. anchor systems (~20 lbs.)  
8 ea. anchor systems (~40 lbs.)  
2 ea. shoreside recovery units.  
\( \text{Vessels} \)  
2 ea. class 3/4  
2 ea. class 3/4  
Withdraw  
\( \text{Personnel/Shift} \)  
10 ea. vessel crew  
3 ea. response techs.  

Tending  
\( \text{Vessels} \)  
1 ea. class 3/4  
1 ea. class 3/4  
\( \text{Personnel/Shift} \)  
5 ea. vessel crew  
2 ea. response techs. | Yakutat harbor | Vessel platform  
Chart 36761-1 | Same as SE09-01-02 |  
Marine mammals-harbor seals  
Fish-intertidal salmon/trout spawning (coho, sockeye, steelhead, Dolly Varden, cutthroat), herring spawning  
Birds-waterfowl and shorebird concentration, Arctic & Aleutian tern colony (~200)  
Human use-high recreational use, commercial fishing, herring and salmon, subsistence use fish and invertebrates  
Take appropriate measures as outlined in Part 2 of this document to protect the beach at the recovery site.  
\( \text{Title 41 permit may be necessary. Contact ADNR. FOSC Historic Properties Specialist should inspect site prior to operations.} \)  
See Figure G-3-18 for equipment locations.  
Recovery of recovered oil must be by vessel.  
Tested: 7/11/02 SEAPRO  
Surveyed: 7/11/02 SEAPRO, ADEC, TLR |
| SE09-01-03 | **Ankau Lagoon**  
Lat. 59º 34.0 N  
Lon. 139º 46.7 W | Exclusion  
Exclude oil from entering Ankau Lagoon. | Use class 3/4 vessels with deck space to transport equipment.  
Place 600 ft. of protected-water boom, with tidal-seal on each end, across the entrance to Ankau Lagoon to exclude oil.  
Tend throughout the tide. | Deployment  
Equipment  
600 ft. protected-water boom  
2 sections 50 ft. tidal-seal boom  
6 ea. anchor systems (~40 lbs.)  
4 ea. anchor stakes.  
\( \text{Vessels/Personnel/Shift} \)  
Same as SE09-01-02  
Withdraw  
Tending  
\( \text{Vessels/Personnel/Shift} \)  
Same as SE09-01-02 | Yakutat harbor | Vessel platform  
Chart 36761-1 | Same as SE09-01-02 |  
Vessel masters should have local knowledge  
Tested: 7/11/02 SEAPRO  
Surveyed: 7/11/02 SEAPRO, ADEC, TLR |
Blizhni Point, SE 09-02

Center of map at 59° 50.2’ N Lat., 139° 47.2’ W Lon.

Legend

Free-oil Containment and Recovery, Shallow Water
Exclusion Booming
Diversion Booming
--- Protected-water Boom
Shoreside Recovery, Marine Access

June 26, 2003

Geographic Response Strategies for Southeast Alaska Subarea

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Soundings in fathoms
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<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE09-02-01</td>
<td>Blizhni Point</td>
<td>Nearshore waters</td>
<td>Deploy free-oil recovery strike teams upwind and up-current of Blizhni Point. Use aerial surveillance to locate incoming slicks.</td>
<td>Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.</td>
<td>Yukutal Harbor</td>
<td>Via marine waters Chart 16760-1</td>
<td>Same as SE-09-02-02</td>
<td>Vessel master should have local knowledge.</td>
</tr>
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<tr>
<td>SE09-02-02</td>
<td>Blizhni Point</td>
<td>Nearshore waters</td>
<td>Transport equipment by vessel (class 2/3/4) from Yukutal. Deploy protected-water boom across identified sites around Blizhni Point.</td>
<td>Deployment</td>
<td>Vessel platform</td>
<td>Via marine waters Chart 16760-1</td>
<td>Marine mammals-harbor seals Birds-marbled murrelet nearshore feeding concentrations, kittlitz murrelet feeding habitat, sea ducks (scoters) Habitat-mandatory Human use-set-net fishery Land management National Park</td>
<td>Vessel master should have local knowledge. Dynamic shoreline sand bars are in the immediate area. Deployment locations should be verified by site survey. This site is in a National Park. REPORT any cultural resources found during operations to FOSIC Historic Properties Specialist. See Figure G-3-18 for equipment locations. Floating grounded icebergs (winter &amp; spring) Tested: not yet</td>
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</tr>
<tr>
<td>SE09-02-03</td>
<td>Blizhni Point Streams</td>
<td>Nearshore waters</td>
<td>Deploy anchors and boom in cascaded arrays with vessels (class 6). Place protected-water boom at the proper angle to divert oil to recovery site. Set-up recovery unit and tend throughout the tides.</td>
<td>Deployment</td>
<td>Vessel platform</td>
<td>Via marine waters Chart 16760-1</td>
<td>Same as SE-09-02-02</td>
<td>Vessel master should have local knowledge. Recovered oil must be removed by vessel. No road access. Tested: not yet</td>
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<tr>
<td>SE09-02-04</td>
<td>Blizhni Point Streams</td>
<td>Nearshore waters</td>
<td>Deploy protected water boom across the mouth of each identified creek.</td>
<td>Deployment</td>
<td>Vessel platform</td>
<td>Via marine waters Chart 16760-1</td>
<td>Same as SE-09-02-02</td>
<td>Vessel master should have local knowledge. Tested: not yet</td>
</tr>
</tbody>
</table>
Situk River, SE 09-03

Center of map at 59° 26’ N Lat., 139° 32’ W Lon.

Legend

- **FO-S**: Free-oil Containment and Recovery, Shallow Water
- **DV**: Diversion Booming
- **DF**: Deflection Booming, Fixed
- **PR**: Passive Recovery and Debris Removal
- **--------**: Protected-water Boom
- **:\**: Snare Line
- **\ \ \ \ \ \ \ \ \ **: Shoreside Recovery
- **\ \ **: Shoreside Recovery, Marine Access
- **\ \ **: Bears in Area, Guards Needed

**Map & Photo**

**SE 09-03 Looking east across Blacksand Spit at Lost River and Situk River.**

**SE 09-03 Looking northwest out of Situk River lagoon.**

**June 26, 2003**

**Free-oil Containment and Recovery, Shallow Water**

**Deflection Booming, Fixed**

**Diversion Booming**

**Shoreside Recovery, Marine Access**

**Bears in Area, Guards Needed**

**This is not intended for navigational use.**

**Soundings in fathoms**
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<th>Resources Protected (miles)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE09-03-01</td>
<td>Situk River Lat. 59º 26 N Lon. 139º 32 W (approximate location)</td>
<td>Free-oil Recovery</td>
<td>Deploy free-oil recovery strike team. Use aerial surveillance to locate areas of heavy slick concentrations.</td>
<td>One free-oil recovery strike team (or more) to intercept oil before it impacts sensitive areas.</td>
<td>Yakutat</td>
<td>Via marine waters</td>
<td>See SE09-03-02</td>
<td>Do not attempt open ocean recovery except during optimal weather conditions.</td>
</tr>
<tr>
<td>SE09-03-01</td>
<td>Situk River Lat. 59º 26 N Lon. 139º 32 W (approximate location)</td>
<td>Diversion/Recovery</td>
<td>Use class 2 or 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy boom and set anchors. Place total of 3500 ft of boom in 500 ft strings to divert oil to shoreside for manual recovery.</td>
<td>Use class 2 or 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy boom and set anchors. Place total of 3500 ft of boom in 500 ft strings to divert oil to shoreside for manual recovery.</td>
<td>Yakutat</td>
<td>Via marine waters</td>
<td>See SE09-03-01</td>
<td>Marine mammals–harbor seals Fish–salmon and steelhead spawning, eulachon spawning Birds–waterfowl concentrations Habitat–tidal flats, marsh Human use–salmon fishery, sport fishing, subsistence (fish) Terrestrial mammals–bears Bears in area. REPORT any cultural resources found during operations to FOSC Historic Properties Specialist. See Figure G-3-18 for equipment locations. Note: This area is extremely dynamic. Charts are not accurate. Tactics cannot be prescribed in detail. Sites surveys must be conducted immediately before equipment deployment. Tested: not yet Surveyed: 7/11/02 TLR, ADEC</td>
</tr>
<tr>
<td>SE09-03-03</td>
<td>Situk River Lat. 59º 26 N Lon. 139º 32 W (approximate location)</td>
<td>Deflection</td>
<td>Use class 2 or 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy boom and set anchors. Place total of 1000 ft of boom in 500 ft strings to deflect away from river mouths during incoming tides.</td>
<td>Use class 2 or 3/4 vessels with deck space to transport equipment. Use class 6 skiffs to deploy boom and set anchors. Place total of 1000 ft of boom in 500 ft strings to deflect away from river mouths during incoming tides.</td>
<td>Yakutat</td>
<td>Via marine waters</td>
<td>See SE09-03-01 &amp; 02</td>
<td>Tested: not yet Surveyed: 7/11/02 TLR, ADEC</td>
</tr>
<tr>
<td>SE09-03-04</td>
<td>Situk River Lat. 59º 26 N Lon. 139º 32 W (approximate location)</td>
<td>Minimize impact to intertidal marshes through passive recovery using snare line or sorbent boom.</td>
<td>Place up to 2000 ft. of snare line on oil or sorbent boom across mudflats. Anchor with stakes. Replace oiled sections as needed. Use snare line for persistent oils and sorbent boom for non-persistent.</td>
<td>Place up to 2000 ft. of snare line on oil or sorbent boom across mudflats. Anchor with stakes. Replace oiled sections as needed. Use snare line for persistent oils and sorbent boom for non-persistent.</td>
<td>Yakutat</td>
<td>Via marine waters</td>
<td>See SE09-03-01 &amp; 02</td>
<td>Tested: not yet Surveyed: 7/11/02 TLR, ADEC</td>
</tr>
</tbody>
</table>
### Equipment Resource Information

- Snare Line
- Sorbent Boom
- Harbor Boom
- Tidal-seal Boom
- Calm-water Boom
- Protected-water Boom
- Protected-water Boom, Flood Tide
- Open-water Boom
- Open-water Boom, Flood Tide
- Dam
- Gate
- Anchor

### Symbols Used on the Tactic Maps

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<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
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<tr>
<td><img src="image" alt="Improved Gravel Road" /></td>
<td>Improved Gravel Road</td>
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<tr>
<td><img src="image" alt="Un-improved Gravel Road" /></td>
<td>Un-improved Gravel Road</td>
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<td><img src="image" alt="Buildings" /></td>
<td>Buildings</td>
</tr>
<tr>
<td><img src="image" alt="Water Depths, fathoms and tenths" /></td>
<td>Water Depths, fathoms and tenths</td>
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<td><img src="image" alt="Rocks Awash at Low Tide" /></td>
<td>Rocks Awash at Low Tide</td>
</tr>
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<td><img src="image" alt="Bears in Area, guards needed" /></td>
<td>Bears in Area, guards needed</td>
</tr>
<tr>
<td><img src="image" alt="Campground" /></td>
<td>Campground</td>
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<tr>
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PART FOUR – REFERENCES

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U.S. Forest Service ......................................................................................................................................... Region 7 Spill Response Coordinator, Anchorage