REGIONAL STAKEHOLDER COMMITTEE

ADDITIONAL CONTEXT:

PRINCE WILLIAM SOUND OIL SPILL RESPONSE SYSTEM

What does the RSC need to know?

RSC members do not need to understand all the technical or operational aspects of the spill response, but it is helpful to have a basic understanding of the key participants and some of the elements of that system that will be mentioned in briefings.

This section covers:

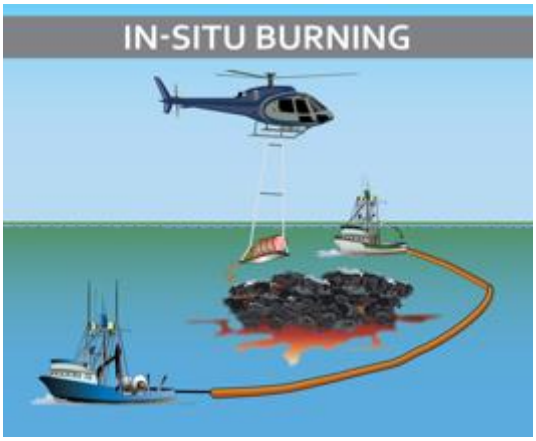
Basic Overview of Oil Spill Response Strategies

Oil spill response, including in Prince William Sound, involves strategies to recover oil (mechanical recovery), chemically disperse it (dispersants), and burn it (in-situ burning). It also includes many other critical tactics and elements, such as tracking or finding the oil slick over time; protecting shoreline areas before the oil reaches them; storing and managing recovered oil/water and other wastes; housing, feeding, and otherwise caring for the needs of response personnel coming in from out of the region; communications; shoreline cleanup; protecting wildlife; and many other pieces that must all come together.

Response plans may need to be altered due to wind, waves, precipitation, fog, or other conditions. Local knowledge can be helpful to suggest potential alternatives such as sheltered areas where response activities may still be safely conducted.

Mechanical response describes spill response tactics and methods where specialized equipment (e.g., boom, skimmers, vessels, etc.) is used to divert, collect, and ultimately physically remove spilled oil from the environment. This includes not just oil, but oil contaminated water, oiled soil, or oily debris such as seaweed or other marine debris. Alaska regulations prioritize planning for mechanical recovery.

Chemical dispersants may be sprayed on spilled oil while it is floating on the water's surface to speed up its mixing into the upper water column, promoting its eventual degradation. Dispersants are usually applied as a spray from an airplane, helicopter, or boat (some tugs in Prince William Sound have this capability). Dispersants are most effective on fresh oil. Dispersant use is pre-authorized in some areas by the FOSC, and in others requires authorization and concurrence of the Alaska Regional Response Team.



Oil may be **burned** in place on the water's surface, or oiled vegetation may be burned on shore. Similar to dispersants, use of in-situ burning, or ISB, requires agency authorization.

Activities undertaken to minimize impacts to wildlife, ranging from hazing (deterring wildlife from approaching oil) to rescuing or rehabilitating injured wildlife.

FOR MORE INFORMATION:

Spill Tactics for Alaska Responders (STAR) manual and videos

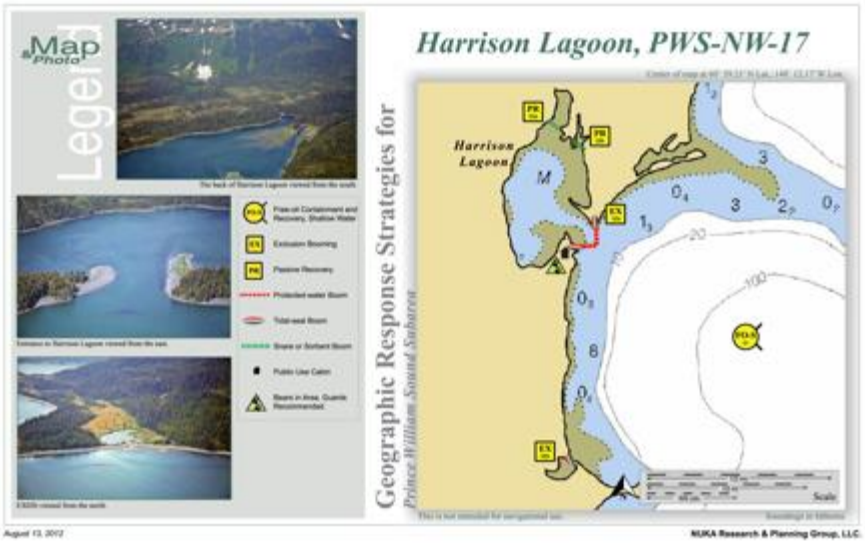
https://dec.alaska.gov/spar/ppr/response-resources/star-manual/

Shoreline cleanup and assessment technique (SCAT) manual

https://response.restoration.noaa.gov/oil-and-chemical-spills/oil-spills/resources/shoreline-cleanup-and-assessment-technique-scat.html

Sensitive Area Protection

RSC members are likely to bring concerns about the protection of specific sensitive areas in or near their communities. Sensitive Area Protection typically takes the form of deploying boom with the goal of protecting particular stretches of shoreline or specific resources, such as hatcheries. Dozens of location-specific strategies, called Geographic Response Strategies (GRS), have been developed for prioritized sensitive areas in the Prince William Sound region. However, these are not the only sensitive sites and the deployment of Sensitive Area Protection strategies should be prioritized on a case-by-case basis during the response. Likewise, while GRSs seek to facilitate prompt deployment and planning by identifying locations, boom configurations, and resource needs, these also may need to be adapted to the conditions encountered at the time of the spill.



Part of an example Geographic Response Strategy (GRS) with site photos and potential deployment locations and configurations for booming and on-water oil recovery.

FOR MORE INFORMATION:

Prince William Sound GRS on ADEC website

https://dec.alaska.gov/spar/ppr/response-resources/grs/pws/

Ship Escort/Response Vessel System (SERVS)

The Ship Escort/Response Vessel System (SERVS) is the organization approved by both the state and federal government to act on behalf of Alyeska Pipeline Service Company and oil shippers in Prince William Sound to *respond* to a spill. (Under federal regulations they are an "Oil Spill Removal Organization" and under state regulations they are a "Primary Response Action Contractor".)

SERVS provides personnel, response equipment, barges, tugs, and other vessels to implement the response, both directly and through various contractual relationships. For example, Edison Chouest Offshore (ECO) owns and operates the tugs and barges that are crucial pieces of the SERVS-operated and managed prevention and response system.

The SERVS Duty Office, similar to an air traffic controller, manages and coordinates tanker traffic and the associated tug escorts, applying consistent procedures regardless of what tanker company is operating.

If a spill involves either a crude oil tanker in Prince William Sound or at the Valdez Marine Terminal, SERVS tugs are likely to be first on scene. The SERVS Duty Office would shift to a response role, initiating notification phone calls to state and federal agencies among others, standing up the Incident Management Team, and beginning to direct the initial response actions.

SERVS Fishing Vessel Program

RSC members should be aware that approximately 400 fishing and other vessels in the area are already signed on to be part of the response through a SERVS program that contracts and trains vessel captains and crews. This not only leverages local assets to complement the response, but deep experience and familiarity with the local waters as well. There are three tiers of vessels in that program.

F/V Category	Description	Activity
Tier I	Vessels in Valdez, Cordova, and Whittier already contracted and trained to respond within 6 hours. (A few Tier 1 fishing vessels, known as "Rapid Responders," are expected to respond in an hour.)	Most likely involved in "open-water" response, helping move skimmers and boom to recover the thickest oil.
Tier II	Vessels primarily based in Valdez, Cordova, Whittier, Seward, Homer, and Kodiak that are already contracted and trained to respond within 24 hours.	Supporting equipment such as skimmers, boom, and small storage devices closer to shore as part of the "nearshore" response.
Tier III	Vessels that are not necessarily pre-contracted or trained, but are identified at the time of the response. Crews are trained on an as-needed basis.	Transporting people or resources, trash collection, etc. to support an ongoing response.

FOR MORE INFORMATION:

SERVS information on Alyeska Pipeline Services Co. website

https://www.alyeska-pipe.com/TAPS/SERVS

Alyeska Pipeline Services Co. video showing a major response scenario

https://www.youtube.com/watch?v=x5RXiG7eUsE

Sign up with SERVS to participate in the Fishing Vessel Program

https://www.alyeska-pipe.com/TAPS/SERVS/VesselOfOpportunity

PWSRCAC fact sheet on vessel types in the SERVS Fishing Vessel Program

https://www.pwsrcac.org/wp-content/uploads/filebase/programs/oil_spill_response_operations/fishing_vessel_training/fishing_vessel_types_fact_sheet.pdf

Summary of Mechanical Recovery Elements

The Prince William Sound response system is positioned to implement all the response elements described above, including the "non-mechanical" options of in-situ burning and chemical dispersants. However, as noted, mechanical recovery is prioritized in spill response planning in Alaska and does not require the additional layers of authorization that are in place for non-mechanical response strategies.

The figure on the following page shows how SERVS assets – complemented by fishing vessels and their crews – are organized to respond in different types of operating environments from the open water to the shoreline.

FOR MORE INFORMATION:

PWSRCAC fact sheet on SERVS escort tugs

https://www.pwsrcac.org/wp-content/uploads/filebase/programs/maritime_operations/tanker_escorts/Escort-Tug-Fact-Sheet-20190311.pdf

State-approved operator plans (searchable by the name of the operator)

https://dec.alaska.gov/Applications/SPAR/PublicMVC/IPP/ApprovedCPlans/

Generalized On-water MECHANICAL Response

Prince William Sound

Salvage & Source Control

Tugs and a barge may stablize a stricken tanker; remove oil before it can leak.

Shoreline Cleanup

If oil reaches shore, it may be removed using cold-water deluge or sorbent (sponge) materials.

Open-water Task Forces (OWTF) < 5

- Groupings of oil spill response barges with associated tugs and large fishing/support vessels to deploy skimmers.
- Maximizes recovery of the thickest oil.
- Largest recovery systems in the system.
- Skim and store oil and recovered liquids. (Containment as needed.)

Large skimmers are deployed from barges using cranes. Both tugs and fishing vessels are needed to maneuver the OWTF systems.

Nearshore Task Forces (NSTF) < 19

- Groupings of fishing/support vessels that contain and skim oil that has begun to spread.
- Smaller systems than OWTF.
- Storage of recovered fluids and general coordination and logistical support provided by one or more large barges.
- Configurations and equipment vary.

photo credit: ©Tim Robertson/NUKA

Vessels in the SERVS Fishing Vessel Program are trained regularly to deploy smaller oil recovery systems, typically supported by the 500-2 barge which stores the oily mixture recovered.

Sensitive Area Protection Task Forces (SAPTF) < 6

- Fishing/support vessels place and maintain boom in different configurations depending on location and conditions.
- Blocks oil from sensitive areas on shoreline.
- Must be deployed ahead of the spreading oil slick.
- Likely to be deployed for hatcheries as well as other sites which may include, but should not be limited to, identified Geographic Response Strategies (GRS).

Photos by Jeremy Robida, PWSRCAC, unless otherwise noted.