EMERGENCY RESPONSE - GROUNDED VESSEL RESPONSE BEST PRACTICES

The responding agency and any salvage or recovery personnel shall implement the following best practices to minimize risks to protected species under the jurisdiction of NOAA Fisheries Southeast Regional Office (SERO) Protected Resources Division (PRD).

Best Practices

The responding agency or salvage should contact and coordinate with NOAA Fisheries for project specific technical support, to help identify any sensitive habitats at risk, and to discuss specifics of the response operation. Specific information will be used to select which best practices are most appropriate or to develop best practices relevant to a particular response as necessary.

Based on the appropriate methodology for the salvage operation, work areas shall be selected in coordination with SERO PRD and based on benthic surveys for actions such as towing of vessels, anchoring, and spudding in order to minimize impacts to ESA-listed species and designated critical habitat.

The best practices required for the protection of ESA resources for a particular response shall be included in the salvage plans and incident action plans for each response.

In addition to the specific best practices described below, responding agencies and personnel shall implement all relevant provisions of the following guidance documents:

- NOAA Fisheries Protected Species Construction Conditions, Revised: May 2021
- NOAA Fisheries Vessel Strike Avoidance Measures, Revised: May 2021
- NOAA Fisheries Queen Conch Survey, Construction Conditions, Relocation and Reporting Guidelines: January 2025

The following best practices are applicable to all vessel groundings:

- Survey benthic habitats that may be disturbed by spudding or anchoring of booms or vessels for sensitive habitats. Sensitive habitats include coral reefs, hard bottom habitats, seagrass beds, floating vegetation areas (e.g, sargassum mats), and mangroves, even if it is not designated critical habitat. Sensitive habitats also include all areas that are designated critical habitat. NOAA offers the Environmental Sensitivity Index maps and data that can help identify at risk resources to prioritize deployment of available resources to prevent or minimize impacts to sensitive habitats. NOAA Fisheries also

provides an Essential Fish Habitat Mapper and the SERO ESA Section 7 Mapper that can provide additional information. If there is a need to relocate conch, we recommend following the NOAA Fisheries Queen Conch Survey, Construction Conditions, Relocation, and Reporting Guidelines (January 2025).

- Anchoring or spudding of all response vessels should be in uncolonized (non-coral) soft substrates only (e.g., non hardbottom). The installation of mooring pins or other anchor systems that eliminate the use of non-floating line and minimize impacts to bottom substrate is preferred if uncolonized sand areas are not available (e.g., seagrass beds) or are not large enough to anchor the vessels. Ensure that any lines connected to the grounded vessel and lightering or recovery vessels have floats attached to keep lines or cables off of coral reef, hardbottom habitat, or seagrasses.

- Booms, lines, and other equipment must be made of materials that reduce the risk of entanglement of marine species. Keep all in-water lines (rope, chain and cable; including the lines to secure boom, buoys, anchors, etc.) stiff, taut, and non-looping.

- Booms should be deployed around the grounded vessel to minimize the potential for transport of materials outside the immediate area of the grounding. The location of boom anchors should be coordinated with SERO PRD based on surveys of the area immediately following the grounding as long as sea state permits the safe completion of these surveys. Booms and other underwater equipment should be monitored during the response action to ensure they do not cause damage to ESA-listed species, including breakage or abrasion of corals and entrapment of sea turtles.

- Ensure that booms do not entrap any protected or ESA-listed species or black access for them to navigate around the work area. If protected species are observed trapped or entangled in a boom(s), open the boom carefully until the animal leaves on its own.

- Salvage activities should be conducted at high tide to facilitate refloating the grounded vessel over areas containing ESA-listed species and designated critical habitat.

- Fuel and cargo should be offloaded from the grounded vessel to reduce the vessel's draft and minimize the potential for environmental hazards, such as spills. Special provisions must be made for offloading fuel/contaminants if a vessel is grounded on or adjacent to a coral reef.

    - Use booms and containment equipment to ensure no contamination to corals and critical habitat underneath and adjacent to the vessel. Caution must be taken to prevent boom (including lines and anchors used to guide or secure vessels or booms) from contacting corals or hardbottom in shallow areas,

    - No anchoring or spudding of vessels or equipment on coral or hardbottom, any lines connected to the grounded vessel and lightering vessels have floats attached to keep lines or cables off of coral reef.

  - If corals are in danger of being impacted by the operation, approval must be obtained from the NOAA Fisheries before proceeding. Evaluate alternatives to minimize impacts.
  - Work with NOAA Fisheries if there is a need for airbags as part of the fuel removal to ensure minimization to further damage of the corals underneath the vessel
  - Work with NOAA Fisheries for specific Best Practices for relocating corals that may be at risk of impact from fuel removal activities.

- Cargo should be assessed early in the process and organics should be removed quickly to avoid hazardous build-up of gases in the hold and the potential use of chemicals to reduce hazardous levels of the gas to protect response workers and these chemicals could impact marine resources.

- If a vessel will be refloated and towed out of an area, an extraction path having the least impact on ESA resources shall be selected in coordination with SERO PRD and based on benthic surveys of the area. This path may not be the same as the ingress path. Once the extraction path has been agreed upon, temporary buoys should be used to mark the extraction path and GPS plots of the path should be input into the grounded vessel's GPS and all towing vessels' navigation systems to assist the salvage in staying on course.

- In shallow waters, in order to minimize the potential for propeller wash damage to ESA resources, the use of propulsion systems and high revolutions per minute (RPMs) should be avoided. If this is not possible, then areas for these operations should be selected in coordination with SERO PRD and based on benthic surveys of the site.

- If a vessel will be scuttled, after obtaining all required permissions, alternative locations for scuttling the vessel both close to the grounding site in deep water and further offshore in deep water should be selected in case the vessel proves too unstable to float a long distance from the grounding site. Appropriate measures should also be taken to secure the vessel at the scuttling location to minimize the risk of movement of the sunken vessel during storms.

- Properly tie-down or secure all equipment in designated areas to prevent accidental loss of equipment into the water. Any debris that accidentally falls into the water during response actions should be retrieved immediately.

Best Practices Specific to Sensitive Habitats

Sensitive habitats include coral reefs, hard bottom habitats, seagrass beds, floating vegetation areas (e.g, sargassum mats), and mangroves, even if it is not designated critical habitat. Sensitive habitats also include all areas that are designated critical habitat. NOAA offers the Environmental Sensitivity Index maps and data that can help identify at-risk resources to prioritize deployment of available resources to prevent or minimize impacts to sensitive habitats. The following best practices apply to activities in or adjacent to these areas:

- If the grounding occurred in a sensitive habitat, anchor methods and anchor and spud locations should be selected in coordination with SERO PRD for all response vessels associated with a particular response action.

- If the vessel grounded on, or near sensitive habitat, use booms and containment equipment to ensure no contamination occurs underneath and adjacent to the vessel. Caution must be taken to prevent boom (including lines and anchors used to guide or secure vessels or booms) from contacting and damaging sensitive habitats.

- If sensitive habitats are in danger of being impacted by salvage and recovery operations, please contact the NOAA Southeast Regional Office emergency coordinator email (nmfs.ser.emergency.consult@noaa.gov) as soon as possible to discuss any special approval before proceeding so that PRD may evaluate alternatives to minimize impacts.

- Work with NOAA Fisheries or our partner's onsite and the NOAA SERO emergency coordinator if there is a need for airbags as part of the fuel or cargo removal to ensure minimization to further damage sensitive habitats underneath the vessel.

- The response area should be surveyed daily by divers to ensure proper placement of anchors, lines, and other equipment, and to remove debris and other materials to avoid damage to ESA resources, including corals, sea turtles, and designated critical habitat.

- In areas where sea turtle nesting occurs, or areas near sea turtle nesting, if recovery, salvage, or fuel/contaminant removal activities occur during nighttime, then masking of lighting as much as is practicable should be required on all construction equipment (e.g., barge) and support vessels. This may include the use of amber, orange, or red lighting, outside of nesting sea turtle and hatchling visual spectrum.

For additional information, please contact NOAA Fisheries SERO PRD at:

NOAA Fisheries Service Southeast Regional Office 263 13th Avenue South
St. Petersburg, Florida 33701 Tel: (727) 824-5312

Visit us on the web at Protected Marine Life in the Southeast
(https://www.fisheries.noaa.gov/region/southeast#protected-marine-life)