



# OIL AND GAS PIPELINE ABANDONMENT MITIGATION MEASURES AND BEST PRACTICES

The action agency or project proponent shall implement the following mitigation measures and best practices to minimize risk from abandonment of gas or oil pipelines to ESA-listed species under the jurisdiction of NOAA Fisheries Southeast Regional Office (SERO) Protected Resources Division (PRD).

The included mitigation measures detail what the action agency will do or will require from the project proponent during the project's construction phase to minimize potential effects to ESA-listed species and critical habitat.

## Mitigation Measures

The following is a list of mitigation measures that should be undertaken before or during pipeline abandonment activities.

- Map sensitive habitats and ESA-listed species likely to be present along the path of the segment to be abandoned. Sensitive habitats include coral reefs, hard bottom habitats, seagrass beds, floating vegetation areas (e.g, sargassum mats), mangroves, and ESA listed critical habitat areas. 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.
- For buried pipelines, abandonment in place is preferred over abandonment by removal in areas with sensitive habitats (seagrass meadows, oyster reefs, emergent wetlands, mangroves, etc.)
- Prior to abandonment, the pipeline will be cleaned using mechanical cleaning tools.
- Any pipeline liquids produced from the cleaning activities will be treated and tested to demonstrate they are below the thresholds required for discharge in state or federal waters as appropriate. These liquids should be contained where possible using appropriate pollution controls such as booms.
- If the pipeline is to be abandoned in place, pipelines in federal waters will be filled with seawater. For pipeline within state waters or onshore, pipelines will be filled with the appropriate substance as dictated by state regulations (e.g., inert gas, freshwater, etc.). All open ends of pipeline that are abandoned in place will be capped or plugged.



- All risers or other components rising above the seafloor will be removed to a depth of at least 3 ft below the natural contour of the local substrate.
- Arrange for compensatory mitigation to impacted sensitive habitats at a minimum of a 1:1 ratio on a functional basis. A 1:1 ratio on a functional basis requires restoring an equivalent level of habitat function for protected species, accounting for temporal delays and failure risks. Since restoration projects take years to reach full functionality, the required mitigation area may exceed the impacted area to compensate for this lag. This includes areas impacted by sidecast materials from jetting or excavation when removing pipeline, areas impacted by sedimentation, and areas of direct disturbance such as anchoring, spudding, or the operation of heavy equipment.
- Removed sections of the pipeline will be tested for radioactive material. Sections that exceed allowable limits will be taken to a remediation facility. All other pipe sections shall be disposed of ashore in accordance with all applicable state and federal regulations.
- Any trenches or excavation work will be backfilled, restoring the topography to preconstruction conditions as practicable.
- For projects near sea turtle nesting beaches, if construction 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 the nesting sea turtle and hatchling visual spectrum.
- The project proponent will implement [NOAA Fisheries Protected Species Construction Conditions, Revised: May 2021](#).
- The project proponent will implement [NOAA Fisheries Vessel Strike Avoidance Measures, Revised: May 2021](#).
- If applicable, the action agency or project proponent will implement: [NOAA Fisheries Queen Conch Survey, Construction Conditions, Relocation and Reporting Guidelines: January 2025](#)
- No spudding or anchoring of project vessels or barges will occur in areas of sensitive habitat.
- When operating in areas of emergent wetlands, use appropriate equipment and mitigation measures to minimize impacts (e.g., marsh mats, airboats, marsh buggies, long-reach excavators, etc.).



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

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