

**APPENDIX G: BEST MANAGEMENT PRACTICES TO AVOID
ENTRAPMENTS**

Protected Marine Species Entrapment Prevention Measures

Bottlenose dolphins, sea turtles and Gulf sturgeon (NOAA Trust Species) are known to inhabit coastal Louisiana waters. Bottlenose dolphins are protected under the Marine Mammal Protection Act of 1972 (MMPA) and sea turtles and Gulf sturgeons are protected under the Endangered Species Act (ESA). Because of the potential for these protected species to become entrapped within construction sites in coastal Louisiana waters, projects that utilize shallow open water areas for the construction of enclosed facilities and wetland creation will utilize the following measures to minimize and/or prevent the potential for such entrapment:

1. Prior to construction, the Corps of Engineers (COE) Technical Manager, the Contracting Officer Representative (COR) and the Contractors should conduct a site visit and meeting to develop a mutual understanding relative to compliance with the MMPA and the ESA.
2. Contractors will instruct all personnel associated with the project of the potential presence of Trust Species in the area, and the need to prevent entrapment of these animals. All construction personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing these protected species. The Contractor shall be held responsible for any Trust species harassed or killed as a result of construction activities not conducted in accordance with these specifications.
3. Contractor will observe the area to be enclosed for Trust Species at least 24 hours prior to and during closure of any levee, dike or structure. This is best accomplished by small vessel or aerial surveys, with at least two experienced marine observers on board scanning for Trust species. Large areas (e.g. >300 acres) will likely require the use of more than one vessel or aerial surveys to insure full coverage of the area. These surveys will occur in a best sea state (BSS) of 3 feet or less, as Trust species are difficult to sight in choppy water.
4. Any Trust Species sighted within the area to be enclosed triggers all appropriate precautions to be implemented by the Contractor to ensure protection of the animal(s). These precautions shall include avoiding direct contact with the Trust species.
5. Any sightings of Trust Species within an enclosed project site shall be reported immediately to the COE. The point of contact within the COE will be Tammy Gilmore, (504) 862-1002 or email at tammy.h.gilmore@usace.army.mil. Coordination by the COE personnel with the National Marine Fisheries Service (NMFS) Marine Mammal Health and Stranding Response (MMHSRP) and the Louisiana State Coordinator for the Sea Turtle Stranding and Salvage Network (STSSN) will be conducted, as applicable, to determine what further actions may be required.
6. During enclosure construction, the Contractor will leave or construct at least one escape route in retention structures to allow any Trust species to exit shallow open water areas during construction activities. Escape routes in retention structures would be constructed to lead directly to open water outside the disposal site with a minimum width of 100 feet and have a depth as deep as the deepest natural entrance into the disposal site.

7. Escape routes in retention structures would remain open until visual inspections of the enclosure have determined that no Trust species are present within the structure.
8. If observers note entrapped animals are not leaving the area, but are visually disturbed, stressed, or their health is compromised then COE may require any pumping activity to cease until the animals either leave on their own or are moved under the direction of NMFS.
 - a. In coordination with the local stranding networks and other experts, NMFS will conduct an initial assessment to determine the number of animals, their size, age (in the case of dolphins), body condition, behavior, habitat, environmental parameters, prey availability and overall risk.
 - b. If the animal(s) is/are not in imminent danger they will need to be monitored by the Stranding Network for any significant changes in the above variable.
 - c. The contractor may not attempt to scare, herd, disturb, or harass the Trust species to encourage them to leave the area. Coordination by the COE with the NMFS SER Stranding Coordinator may result in authorization for these actions.
 - d. NMFS may intervene (catch and release and/or rehabilitate) if the Trust Species are in a situation that is life threatening and evidence suggests the animal is unlikely to survive in its immediate surroundings.
 - e. Surveys will be conducted throughout the area at least twice or more in calm surface conditions (BSS 3 feet or less), with experienced marine observers, to determine whether Trust species are no longer present in the area.
9. Any Trust Species observed dead must immediately be reported to the COE (Tammy Gilmore 504-862-1002) .who will then report to NMFS and/or STSSN coordinator.

Special Operating Conditions If Manatees Are Present in the Project Area:

- (1) If a manatee(s) is sighted within 100 yards (91 m) of the project area, all appropriate precautions shall be implemented by the Contractor to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 ft (15.2 m) of a manatee. If a manatee is closer than 50 ft (15.2 m) to moving equipment or the project area, the equipment will be shut down and all construction activities will cease to ensure protection of the manatee. Construction activities will not resume until the manatee has departed and the 50-foot (15.2 m) buffer has been re-established.
- (2) If a manatee(s) is sighted in the project area, all vessels associated with the project shall operate at "no wake/idle" speeds at all times while in waters where the draft of the vessel provides less than a four-foot (1.2 m) clearance from the bottom, and vessels will follow routes of deep water whenever possible. Boats used to transport personnel shall be shallow-draft vessels, preferably of the light displacement category, where navigational safety permits.
- (3) If siltation barriers are used, they will be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment.
- (4) Manatee Signs. Prior to commencement of construction, each vessel involved in construction activities shall display at the vessel control station or in a prominent location, visible to all employees operating the vessel, a temporary sign at least 8-1/2" x 11" (21.6 x 27.9 cm) reading, "CAUTION: MANATEE HABITAT/IDLE SPEED IS REQUIRED IN CONSTRUCTION AREA." In the absence of a vessel, a temporary 3' x 4' (0.9 x 1.2 m) sign reading "CAUTION: MANATEE AREA" will be posted adjacent to the issued construction permit. A second temporary sign measuring 8-1/2" x 11" (21.6 x 27.9 cm) reading "CAUTION: MANATEE HABITAT. EQUIPMENT MUST BE SHUT DOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION" will be posted at the dredge operator control station and at a location prominently adjacent to the issued construction permit. The Contractor shall remove the signs upon completion of construction.