



Managing Sea Turtles During the Oil Spill Response



Why care about sea turtles?

Each summer on the beaches of the Gulf Coast, a unique natural event takes place: one of the largest living reptile species—the sea turtle—leaves the water during the night to crawl ashore to lay her eggs in a sandy nest. After about an hour digging with her rear flippers, she deposits her clutch of eggs, covers them with sand, and then returns to the sea. About two months later hatchlings are born and emerge to scramble to the waters of the Gulf of Mexico. We have much to learn about this primitive animal, which serves as an indicator of the overall health of our oceans.

All sea turtles are listed as either threatened or endangered under the Endangered Species Act. Five of the seven species ply Gulf of Mexico waters: loggerhead, green, hawksbill, Kemp's ridley, and leatherback turtles. Their history—sea turtles have existed for more than 100 million years—and their travels throughout the world's oceans add to their intrigue. Sea turtles play a major role in two ecosystems—the ocean community and the beach community.

How has the oil spill affected sea turtles and their habitat and survival?

The Deepwater Horizon oil spill has affected sea turtles, which are already sensitive to human impacts. The life history of sea turtles places them at heightened risk due to the intersection of their behavior with areas where oil collects. Sea turtle habitats include fine-grained sand beaches for nesting, seagrass beds and coral reefs for foraging, and open water convergence zones. Since oil often collects in these habitats after a spill and is difficult to access and remove, there is an increased potential for sea turtles to encounter oil.

Oil can affect turtles or their habitats in many ways. Ingested oil may cause harm to their internal organs. Oil covering their bodies may interfere

with breathing because they inhale large volumes of air to dive. Oil can get into cavities such as the eyes, nostrils, or mouth. Turtles can be physically impaired or overwhelmed by tar patties, causing hatchlings to become easy prey.

Oil also diminishes turtles' food sources. Even if turtles avoid contact with oil slicks, eating and ingesting contaminated food will harm them.

Because it is occurring in the middle of hatching season, the oil spill may effect future population levels and reproduction.

What is the relationship between oil spill clean-up and nesting turtles?

Night operations are a viable method for oil clean-up because they minimize heat stress in light of rising heat indices that occur during the day, promoting worker safety. Since sea turtles may potentially nest at any shoreline location, it is important to recognize potential risks to turtles during clean-up operations.

Nighttime clean-up of oiled beaches and spill-related debris can present risks to turtles, which are sensitive to human disturbance. The operation of heavy machinery and vibrations from its use, the use of bright lighting, and large numbers of people moving on the beach can cause great disturbance. Nesting turtles can get injured by foot and equipment traffic that compress sand, which also makes it difficult for females to dig nests and for hatchlings to dig out. Machinery and boom may inter-

fere physically with a turtle's ability to get into the water or may prohibit females from beaching to nest. Machinery may inadvertently destroy eggs or erase turtle tracks that help us find, protect, and possibly relocate eggs. Vibrations from heavy machinery may result in hatchlings emerging from their nests during the day, timing that may leave them more vulnerable to predators. Hatchlings can become disoriented by machinery's bright light, which interferes with their ability to be guided to the surf by moonlight.

Some clean-up crews have discovered nests as a result of observations during oil clean-up. These efforts will keep beaches clear of oil, which should help turtles as they crawl down to the shoreline and enter the surf after nesting.

Are there established protocols for minimizing impacts to turtles during clean-up at night?

Conservation agencies working with the Unified Command have established measures to minimize the potential adverse effects of clean-up efforts on turtles. All beaches are considered potential turtle habitats, and personnel are informed that turtles may be present in any operations area.

Generally, certain notifications need to be made prior to any nighttime operation. A turtle advisor (TA) will examine the area prior to work and look for any evidence of sea turtle activity. If turtles are located, the TA will be responsible for staging areas to avoid the site, and the area will be flagged so there will be no human or equipment

intrusion. A resource advisor (READ) also will be onsite to monitor and advise the work crew about turtle presence. In areas where turtles nests are positively observed, people should keep noise to a minimum, use conversational voices, and not shout or yell within a nest perimeter. Efforts should be made to avoid nests on beach. The number of crews and active cleaners at any given time will be limited to necessary personnel, and a 200-foot perimeter will be maintained between turtles and any beach clean-up operation. If turtle tracks are spotted, READs and TAs will document this evidence.

What can be done to help protect turtle nesting sites?

Thanks to these measures, we can engage in oil spill clean-up efforts, including night operations; share the shoreline with turtles; and insure their survival.

You can help while visiting Gulf beaches:

- Avoid any nesting sites, which are often cordoned off and signed as sensitive areas. If you come across a nest, observe from a distance. Leave the animal and its nest undisturbed and nest markers in place. Turtle tracks in the sand allow researchers to note where nests are located and to monitor their safety, so please leave these tracks untouched.

- Minimize the use of bright lights or flashlights on beaches at night, as this may disturb turtles and disrupt nesting activity.
- Do not start fires on any beach.
- Help remove beach litter because turtles may mistake it for food.

If you observe an oiled turtle that comes to beach and cannot return to water under her own power, contact the Wildlife Reporting Hotline immediately at 866-557-1401. A dispatcher is available 24 hours a day, seven days a week, to promptly dispatch a wildlife response team.

Where can I get more information?

www.nps.gov/aboutus/oil-spill-response.htm
www.restorethegulf.gov

www.deepwaterhorizonresponse.com
www.fws.gov/home/dhoilspill