U.S. Fish and Wildlife Service-Endangered Species Act Emergency Section 7 Consultation Best Management Practices (BMPs) for Federally Listed Sea Turtles in Relation to FEMA's Federal Disaster Grant Assistance to the Puerto Rico Department of Sports and Recreation

Thank you for your email message (Nov. 3, 2017) regarding the FEMA's proposal to provide federal disaster grant assistance to the Puerto Rico Department of Sports and Recreation (DRD in Spanish) for removal of vegetative debris from public beaches. The proposed action would take place in the following public beach areas: Boquerón (Cabo Rojo), Caña Gorda (Guánica), Cerro Gordo (Vega Baja), Isla de Cabras (Toa Baja), La Monserrate (Luquillo), Manuel Nolo Morales (Dorado), Punta Salinas (Toa Baja), Punta Santiago (Humacao), Seven Seas (Fajardo), Sun Bay (Vieques), and Tres Hermanos (Añasco).

All sand beaches in Puerto Rico are potential nesting habitat for listed sea turtles. The sea turtle species that mainly use PR beaches for nesting are the leatherback sea turtle (*Dermochelys coriacea*), hawksbill sea turtle (*Eretmochelys imbricata*), and green sea turtle (*Chelonia mydas*).

The timing of the proposed removal of vegetative debris is important in regards to avoid and minimize potential effects of this action on sea turtle nests and habitat. The following months are the approximate nesting seasons for sea turtles in Puerto Rico:

- Leatherback nesting season is from February to August with an approximate egg incubation period of 60 days.
- Hawksbill may nest year round but have a peak nesting season between August and October with an approximate egg incubation period of 60 days.
- Green nesting season is from June to September with an approximate egg incubation period of 45 to 75 days.

In general, the public beach areas indicated above are not considered high use sea turtle nesting areas in Puerto Rico. However, since traditional nesting beaches may have been impacted by the passing of the hurricanes, non-traditional nesting beaches are potentially being used particularly by the hawksbill sea turtle. If conservation measures are not implemented, the proposed project may impact any active sea turtle nest by compacting the sand or digging of a nest and may impact the coastal vegetation (nesting habitat) used by the hawksbill and the green sea turtles for nesting.

In order to avoid and minimize potential effects on sea turtles nests or habitat, we recommend the following sea turtle conservation measures.

- Implement the debris removal activities as soon as possible and complete by end of January 2018 or beginning of February 2018.

- Avoid the removal of standing and live coastal vegetation (e.g. sea grapes, mangroves) that are not a hazard. Also, avoid fence installation, construction activities, and light installation within 50 meters from the high tide.

- A qualified sea turtle monitor should survey the beach for possible sea turtle nests. The DRD and/or contractor should coordinate with the Puerto Rico Department of Natural and Environmental Resources (PRDNER) sea turtle program and/or each permitted sea turtle group in charge of monitoring certain beaches in their designated municipalities or nearby areas. See contact information further below.

- Be aware of the potential for sea turtle nesting activity on all sand beaches, mixed sand and gravel (including coral rubble, shell) beaches, and some gravel beaches throughout Puerto Rico. Adult sea turtles, crawls, nests, eggs, and hatchlings should be protected during debris removal on sea turtle nesting beaches, including hatchling turtles as they emerge from the nest and crawl to the sea.

- Each day before the removal of debris, a qualified sea turtle monitor should survey the beach for possible sea turtle nests. Any nest found should be marked in place (see below). Debris removal activities on the beach should initiate after the sea turtle monitor has completed the morning surveys.
- If an unmarked sea turtle crawl is encountered during or prior to the debris removal, the work crew should not disturb the integrity of the crawl. Follow the crawl up the beach or into the dune and contact the sea turtle monitor to inform of the location of the crawl.

- Any marked nests within the areas where debris removal will occur (including access areas) shall be left in place. Marked nests shall be delineated by stake and survey tape or string around the nest. A circle with a 10-ft radius centered at the nest is recommended for nest protection. Marked nests and areas with unmarked nests must be avoided during debris removal.

- Equipment and work crews should only transit the beach seaward of the nesting area on the hard-packed sand (stay below the wrack line if present).

- If a sea turtle (either adult or hatchling) is observed, maintain at least 200 ft between the sea turtle and work personnel and contact the sea turtle monitor.

- If sea turtle hatchlings are encountered, maintain at least 200 ft between the hatchlings and work personnel, and allow the hatchlings to crawl unobstructed to the water. Do not carry the hatchlings to the water and contact the sea turtle monitor immediately.

- All debris removal actions, equipment, and personnel shall observe a 10-ft buffer from marked sea turtle nests. Care should be taken to avoid walking or driving equipment over a crawl so that a potential nest is not damaged.

- If altered, beach topography shall be restored in all areas to the natural beach profile at the end of operations each day. Restoring beach topography includes raking of tire ruts, filling pits or holes where debris was removed, etc. Any potential obstructions such as debris piles equipment, etc. should also be removed from the beach by the end of each day.

- In the event a sea turtle nest is excavated during debris removal activities, immediately cease all work in that area and contact the sea turtle monitor.

- Minimize lighting at night that may disorient sea turtle hatchlings and nesting females. Any lighting should not be seen directly, indirectly or cumulatively from the beach. Light management strategies such as shielding, lowering of the lights, locating the lights away from sight view of the beach, using an alternate light source such as Low Pressure Sodium Vapor lights, red or amber LEDs and planting of vegetation barriers are some of the available alternatives to implement. LEDs should be of the proper wavelength (true red, or amber colored diode) and should not consist of white or blue LEDs with filter material

- Upon locating a dead, injured, or sick sea turtle, or if eggs or nests are disturbed during response activity, contact the sea turtle monitor whom will further notify the appropriate agency contacts.

CONTACT INFORMATION

If you have any question about these recommendations, please contact Jan P. Zegarra, USFWS biologist, at 787-397-7403 or jan_zegarra@fws.gov or José A. Cruz Burgos, USFWS Endangered Species Program Coordinator, at 787-510-5206 or jose_cruz-burgos@fws.gov.

For specific sea turtle monitoring in the different areas you may contact:

PRDNER Sea Turtle Program Coordinator and Piñones area
Carlos Diez cdiez@drna.gobierno.pr 787-453-6484

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