

Attachment D

NMFS Best Management Practices (BMP) for General In-Water Work Including Boat and Driver Operations (October 2018)

Best Management Practices (BMP) for General In-Water Work Including Boat and Diver Operations

October 2018

NMFS Protected Resources Division recommends implementation of the following BMPs to reduce potential adverse effects on protected marine species. These BMPs are not intended to supplant measures required by any other agency.

All workers associated with this project, irrespective of their employment arrangement or affiliation (e.g. employee, contractor, etc.) should be fully briefed on required BMP and the requirement to adhere to them for the duration of their involvement in this project.

- A. Constant vigilance shall be kept for the presence of ESA-listed marine species during all aspects of the proposed action, particularly in-water activities such as boat operations, diving, and deployment of anchors and mooring lines.
 1. The project manager shall designate an appropriate number of competent trained observers to survey the areas adjacent to the proposed action for ESA-listed marine species.
 2. Surveys shall be made prior to the start of work each day, and prior to resumption of work following any break of more than one half hour. Periodic additional surveys throughout the work day are strongly recommended.
 - a. Special attention will be given to verify that no ESA-listed species are in the area where equipment or material is expected to enter the water. This includes anchoring in sandy areas well away from hard substrate or live coral.
 - b. Some unusual activities may require additional surveys as advised by NMFS on an *ad hoc* basis as identified during the consultation.
 3. All work shall be postponed or halted when ESA-listed marine species are within 50 yards of the proposed work, and shall only begin/resume after the animals have voluntarily departed the area.
 - a. If ESA-listed marine species are noticed within 50 yards after work has already begun, that work may continue only if, there is no way for the activity to adversely affect the animal(s). For example; divers performing surveys or underwater work would likely be permissible, whereas operation of heavy equipment is likely not.
 4. Before entering the water, all divers shall be made aware of corals, and the requirement to avoid contact with those organisms while performing their duties. This shall include taking measures to avoid kicking the reef with fins, and to secure dive and survey equipment in a manner that will prevent that material from being drug across the substrate.
 5. All objects will be lowered to the bottom (or installed) in a controlled manner. This can include the use of buoyancy controls such as lift bags, or the use of cranes, winches, or other equipment that affect positive control over the rate of descent.
 6. In-water tethers, as well as mooring lines for vessels and marker buoys shall be kept to the minimum lengths necessary, and shall remain deployed only as long as needed to properly accomplish the required task.

7. When piloting vessels, vessel operators shall alter course to remain at least 50 yards from marine mammals and sea turtles.
8. Reduce vessel speed to 10 knots or less when piloting vessels at or within the ranges described above from marine mammals and sea turtles. Operators shall be particularly vigilant to watch for turtles at or near the surface, and if practicable, reduce vessel speed to 5 knots or less.
9. If despite efforts to maintain the distances and speeds described above, a marine mammal or turtle approaches the vessel, put the engine in neutral until the animal is at least 50 feet away, and then slowly move away to the prescribed distance.
10. Marine mammals and sea turtles shall not be encircled or trapped between multiple vessels or between vessels and the shore.
11. Do not attempt to feed, touch, ride, or otherwise intentionally interact with any ESA-listed marine species.
 - Report any monk seal sightings:
 - Email us at pifsc.monksealsighting@noaa.gov or
 - Call your island's Marine Mammal Response Coordinator:
 - Island of Hawaii: (808) 987-0765
 - Kauai: (808) 651-7668
 - Maui/Lanai: (808) 292-2372
 - Molokai: (808) 553-5555
 - Oahu: (808) 220-7802

B. No contamination of the marine environment shall result from project-related activities.

1. A contingency plan to control toxic materials is required.
2. Appropriate materials to contain and clean potential spills shall be stored at the work site, and be readily available.
3. Heavy equipment in and near water bodies should consider use of bio-fuels and non-petroleum based hydraulic fluids.
4. All project-related materials and equipment placed in the water shall be free of pollutants.
5. The project manager and heavy equipment operators shall perform daily pre-work equipment inspections for cleanliness and leaks. All heavy equipment operations shall be postponed or halted should a leak be detected, and shall not proceed until the leak is repaired and equipment cleaned.
6. Fueling of land-based vehicles and equipment shall take place at least 50 feet away from the water, preferably over an impervious surface. Fueling of vessels shall be done at approved fueling facilities.
7. Turbidity and siltation from project-related work shall be minimized and contained through the appropriate use of erosion control practices, effective silt containment devices, and the curtailment of work during adverse weather and tidal/flow conditions.
8. A plan shall be developed to prevent debris and other wastes from entering or remaining in the marine environment during the project.

C. Minimize anchor impact to corals, seagrass or other Essential Fish Habitat

1. Use designated anchorage area when available.
2. Divers will assist the deployment and setting of the anchor, when practicable.
3. Avoid anchoring in coral and seagrass.
4. Minimize anchor drag by periodic visual observation to monitor dragging and to identify if proper tension is being maintained on the line and monitor ocean conditions that might affect the anchor's functionality.

