### United States Department of the Interior



FISH AND WILDLIFE SERVICE 1875 Century Boulevard Atlanta, Georgia 30345

FWS/R4/DH NRDAR

JUN 04 2014

Memorandum

To:

Manatee Recovery Coordinator, North Florida Ecological Services Field Office

From:

Deepwater Horizon, Department of the Interior Natural Resource Damage Herri D. Ruprolle

Assessment and Restoration (NRDAR), Case Manager

Subject:

Compliance with Marine Mammal Protection Act

As you are no doubt aware, on or about April 20, 2010, the mobile offshore drilling unit Deepwater Horizon experienced an explosion, leading to a fire and its subsequent sinking in the Gulf of Mexico (the Gulf). These events resulted in the discharge of millions of barrels of oil into the Gulf over a period of 87 days. In addition, various response actions were undertaken in an attempt to minimize impacts from spilled oil. These events are hereafter collectively referred to as the Oil Spill.

The Department of the Interior (DOI), acting through the U.S. Fish and Wildlife Service (the Service) and other Bureaus, is a designated natural resource trustee agency authorized by the Oil Pollution Act of 1990 (OPA) and other applicable federal laws to assess and assert a natural resource damages claim for this Oil Spill. DOI is only one of several Trustees, so authorized. Consistent with their federal and state authorities, the Trustees are investigating the resource injuries and losses that occurred as a result of the Oil Spill and have initiated restoration planning to identify the actions that will be needed or appropriate to restore injured resources and to make the public whole for the injuries and losses that occurred. This process is known as a Natural Resource Damage Assessment (NRDA).

On April 20, 2011, DOI, National Oceanic and Atmospheric Administration, and the Trustees for the five Gulf states affected by the Oil Spill entered into an agreement with BP, a responsible party for the Oil Spill, under which BP agreed to provide \$1 billion for early restoration projects in the Gulf to address injuries to natural resources caused by the Oil Spill. Pursuant to this agreement, the Trustees have developed a draft early restoration plan that, among other things. proposes a number of early restoration projects for implementation. The plan was released for public comment and review on December 6, 2013. The Trustees may ultimately select some, none, or all of the projects for implementation after consideration of public comment and a stipulated agreement is reached with BP. Any restoration project so selected will be implemented by the appropriate Trustee. DOI, will be a co-Trustee for each project that is selected and implemented.

Many of the proposed projects will involve in-water work in areas where West Indian manatee could be present and as such consultations under Section 7 of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 et seq.), were initiated (Table 1). Table 1 includes for each relevant project: its title, general description of the in-water work, conservation measures, effect determination, and field office concurrance date.

Because take of manatees, incidental or otherwise, is not presently authorized under the Marine Mammal Protection Act (MMPA) of 1972, as amended (16 U.S.C. 1461 et seq.), each consultation where manatees may be affected included conservation measures to ensure potential effects were avoided or minimized to an insignificant and discountable level. These consultations considered the likelihood of mantee presence and the potential adverse effects of the proposed projects to the manatee. While manatees are not likely to be present at most of the project locations, they could be transiting the project areas. Therefore, conservation measures for manatee were incorporated into all of the consultations proposing in-water work where manatees could be present. In general, where in-water work will occur and manatees could be present, the Trustees will implement the Service's "Standard Manatee Conditions for In-Water Work" dated 2011<sup>1</sup>. Other conservation measures are project specific and are listed in the attached table.

Based on the consultations, DOI has determined that each consultation resulted in either a No Effect or May Affect, Not Likely to Adversely Affect determination for the West Indian manatee. Each Service Field Office reviewed the proposed projects within their jurisdiction under sesction 7 of the ESA and concurred with our determinations<sup>2</sup>. As stated previously, each relevant project title, general description of the in-water work, conservation measures, determination, and field office concurrance date are summarized in Table 1. A copy of each ESA consultation is available upon request.

DOI believes the procedures contained within these consultations constitute appropriate and responsible steps to promote compliance with MMPA prohibitions on take by requiring the proposed activities to achieve a standard of No Effect or May Affect, Not Likely to Adversely Affect for manatees. As such, we do not anticipate any take, incidental or otherwise, under the ESA or MMPA for West Indian manatee due to implementation of any of the proposed projects.

In addtion, the National Marine Fisheries Service (NFMS) is also coordinating with all of the Trustees under MMPA in order to protect other species of marine mammals that could be present in project areas. NMFS may require additional avoidance measures to protect dolphins or other marine mammals at several of the project locations. These measures could include, but are not limited too: an on-site marine mammal monitor; hydrojetting piles or use of a vibratory hammer versus pile driving; use of bubble curtains, and other similar measures. While we have not attempted to catalogue avoidance and minimization measures from NMFS, we believe any

<sup>&</sup>lt;sup>1</sup> For projects in Alabama and Mississippi project applicants were asked to implement conditions a. through d. of the "Standard Manatee Conditions for In-Water Work." With respect to condition e., we note that no collisions or injuries are expected; though local contact information will be made available. If temporary signs are needed (condition f) we suggested they follow the guidance in condition f modifying the signs with their local resource agency information. In Louisiana, the "Standard Conditions for In-Water Work in the Presence of Manatees" will be implemented.

<sup>&</sup>lt;sup>2</sup> Three projects in Louisiana are currently under review.

additional measures they require will further avoid impacts to manatees should they be present at these action areas.

If modifications are made to any of the projects in a manner that may affect the manatee or its habitat; if additional information involving potential effects to the manatee or other listed species not previously considered becomes available; or if in the unlikely event that the take of a manatee occurs during the project, consultation will be reinitiated.

If you have any questions or concerns regarding this response, please immediately contact Ms. Holly Herod of my staff at (404) 679-7089 or via email at holly\_herod@fws.gov.

Attachment

Table 1. Summary of projects proposed for Deepwater Horizon Early Restoration, ESA determination for West Indian manatee, and ESA concurrence date, and Conservation Measures to protect manatee. No project will proceed with implementation until concurrence under ESA (and other relevant laws) is received. N/A = Not Applicable; NE = No Effect; NLAA = May Affect, Not Likely to Adversely Affect; D = design of intake pipe excludes manatees; E = educational signage will be posted to remind visitors of the potential presence of marine mammals and measures to protect these species while boating and fishing; S = Standard Manatee Conditions for In-Water Work dated 2011 (for FL, AL<sup>1</sup>, MS, see attached) or Standard Conditions for In-Water Work in the Presence of Manatees (for LA, no date available, see attached); T = If possible, complete in-water work when temperatures are below 68°F; V = Dock Construction Guidelines in Florida for docks and other minor structures constructed in or over submerged aquatic vegetation (SAV), marsh, or mangrove habitat (USACE/NMFS, 2001, see attached); W = piles will be installed by water jetting and/or mechanical auguring.

| State | Title  | In-Water Work   | ESA Determination for Manatee | Conservation<br>Measures for<br>Manatee | Date of FO<br>Concurrence |
|-------|--|---|-------------------------------|---|---------------------------|
| AL    | Gulf State Park Enhancement Project  | None  | N/A                           | N/A                                     |                           |
| AL    | Swift Tract Living Shoreline   | Placement of living shoreline materials; vessel use   | NLAA                          | S                                       | 1/21/2014                 |
| AL    | Oyster Reef Restoration in Bon Secour, Heron, and Portersville Bays and Mississippi Sound, Alabama   | Placement of oyster reef materials; vessel use  | NLAA                          | S                                       | 10/28/2013                |
| FL    | Franklin County Parks and Boat Ramps (4 Projects): Waterfront Park Improvement Project; Indian Creek Park Boat Ramp Project; Eastpoint Fishing Pier Improvement Project; St. George Island Fishing Pier Improvement Project) | No in-water work will occur at Eastpoint. Installation of piles potentially at Waterfront park; bulkhead and ramp renovation using heavy equipment at Indian Creek Park; bulkhead repair using heavy equipment at St. George Island pier and vessel use for construction at these four locations. | NLAA                          | S; E                                    | 3/24/2014                 |
| FL    | Bald Point State Park Recreation Areas   | Construct floating dock and canoe/kayak launch  | NE                            | N/A                                     | 3/10/2014                 |
| FL    | Walton County Boardwalks and Dune Crossovers<br>(7 Projects): Bayside Ranchettes Park; Palms of<br>Dune Allen West; Ed Walline; Gulfview Heights;<br>Grayton Dunes; Dothan Beach; Deer Lake State<br>Park Development        | Construct dock for water access at Bayside<br>Ranchettes; no other project has in-water<br>work   | NLAA                          | S                                       | 3/10/2014                 |
| FL    | Beach Enhancement Project at Gulf Island National<br>Seashore  | Heavy equipment use in-water to remove asphalt  | NLAA                          | S                                       | 11/4/2013                 |

<sup>&</sup>lt;sup>1</sup> Alabama and Mississippi will not need to implement condition e and f as written. With respect to condition e., we note that no collisions or injuries are expected; though local contact information will be made available. If temporary signs are needed (condition f) we suggested they follow the guidance in condition f modifying the signs with their local resource agency information.

| State | Title   | In-Water Work   | ESA Determination for Manatee | Conservation<br>Measures for<br>Manatee | Date of FO<br>Concurrence |
|-------|---|---|-------------------------------|---|---------------------------|
| FL    | Beacon Hill Veterans' Memorial Park   | None  | NE                            | N/A                                     | 3/10/2014                 |
| FL    | Big Lagoon State Park Boat Ramp Improvements  | Construct a new lane for existing boat ramp   | NLAA                          | S; E                                    | 3/20/2014                 |
| FL    | Bob Sikes Pier, Parking and Trail Restoration   | None  | NE                            | N/A                                     | 1/28/2014                 |
| FL    | Apalachicola River Wildlife and Environmental<br>Area Fishing and Wildlife Viewing Access<br>Improvements (2 Projects): Cash Bayou and Sand<br>Beach  | Construct a fishing structure/dock/wildlife viewing structure at Cash Bayou; No inwater work at Sand Beach  | NE                            | N/A                                     | 2/18/2014                 |
| FL    | Cat Point (Franklin County) Living Shoreline  | Placement of living shoreline materials; vessel use   | NLAA                          | S                                       | 3/20/2014                 |
| FL    | City of Mexico Beach Marina   | Installation of piles for new and replacement finger piers, increasing width of boardwalk dock; vessel use  | NLAA                          | S, E                                    | 3/24/2014                 |
| FL    | Bay County Docks, Ramps and Piers (4 Projects): St. Andrews Marina Docking Facility Expansions, Earl Gilbert Dock and Boat Ramp Improvements, Oak Shore Drive Pier, Panama City Marina Improvements | Add three new boat slips, replace boat ramp, replace wooden dock with floating dock at St. Andrews; repair existing dock and renovate ramp at Earl Gilbert; Installation of Piles for new pier construction at Oak Shore Drive; Installation of Piles for new pier, renovate ramp, construct new staging docks at Panama City Marina. Vessels will be used all locations for construction. Vessels will be used by visitors at St. Andrews, Earl Gilbert, and Panama City Marina. | NLAA                          | S, E, V                                 | 3/24/2014                 |
| FL    | Florida Artificial Reef Creation and Restoration  | Placement of artificial reef material; vessel use   | NLAA                          | S                                       | 1/23/2014                 |
| FL    | Florida Oyster Reef Restoration   | Placement of oyster reef materials; vessel use  | NLAA                          | S                                       | 1/23/2014                 |
| FL    | Florida Seagrass Recovery Project (St. Joe)   | Placement of seagrasses; vessel use   | NLAA                          | S                                       | 10/21/2014                |
| FL    | Gulf Breeze Wayside Boat Ramp   | Ramp and seawall repair; vessel use   | NLAA                          | S, E                                    | 2/6/2014                  |
| FL    | Gulf Coast Marine Fisheries<br>Hatchery/Enhancement Center  | Installation of Pilings; installation and operation of a water in-take pipe   | NLAA                          | S, D                                    | 12/23/2013                |

| State | Title  | In-Water Work   | ESA Determination for Manatee | Conservation<br>Measures for<br>Manatee | Date of FO<br>Concurrence |
|-------|--|---|-------------------------------|---|---------------------------|
| FL    | Gulf County Boat Ramps (2 Projects): Highland View Boat Ramp, Frank Pate Boat Launch                                     | Repair planking and bumpers of existing pier at Highland View; and Installation of piles for dock expansion, ramp extension at Frank Pate Launch; Vessel use at all locations | NLAA                          | S, W, E                                 | 5/1/2014                  |
| FL    | Lafayette Creek Boat Dock Improvements   | Installation of piles for boardwalk and docking facilities; vessel use  | NLAA                          | S, E                                    | 2/6/2014                  |
| FL    | Navarre Beach Park (2 Projects): Coastal Access and Dune Restoration; Gulfside Walkover Complex                          | Construct canoe/kayak launch to Santa<br>Rosa sound. No in-water work for Gulfside<br>Walkover Complex  | NLAA                          | S                                       | 5/1/2014                  |
| FL    | Norriego Point Restoration and Recreation Project  | Installation of two T-groins including pile driving and jetting of sheet piling   | NLAA                          | S                                       | 3/24/2014                 |
| FL    | Northwest Florida Estuarine Habitat Restoration,<br>Protection, and Education (Fort Walton Beach)                        | Installation of boardwalk, oyster reef creation, salt marsh restoration   | NLAA                          | S                                       | 3/10/2014                 |
| FL    | Pensacola Bay Living Shorelines  | Placement of living shoreline materials; vessel use   | NLAA                          | S                                       | 2/6/2014                  |
| FL    | Perdido Key (2 Projects): Dune Restoration and<br>State Park Beach Boardwalk Improvements                                | None  | N/A                           | N/A                                     |                           |
| FL    | Purchase Two Ferries to Service Fort Pickens, the<br>City of Pensacola, and Pensacola Beach; City Pier<br>(DOI Lead)     | Installation of Piles; vessel use   | NLAA                          | S                                       | 4/1/2010 and<br>2/6/2014  |
| FL    | Restoring the Escribano Point Portion of the Yellow<br>River Wildlife Management Support                                 | None  | N/A                           | N/A                                     |                           |
| FL    | Scallop Enhancement for Increased Recreational Fishing Opportunity in the Florida Panhandle- may just be spat deployment | Vessel use  | NLAA                          | S                                       | 1/23/2014                 |
| FL    | Shell Point Beach Nourishment  | None  | NE                            | N/A                                     | 2/6/2014                  |
| FL    | St. Marks Boat Ramp  | Installation of pilings for a new dock; vessel use  | NLAA                          | S, E                                    | 2/6/2014                  |
| FL    | Wakulla County Mashes Sands Park Improvements  | Installation of Pilings for observation platforms, boardwalks, walking paths; install a canoe/kayak launch  | NE                            | S, E                                    | 3/24/2014                 |
| FL    | Windmark Fishing Pier  | Installation of Piles; vessel use   | NLAA                          | S, E, W                                 | 5/1/2014                  |

| State | Title   | In-Water Work   | ESA Determination for Manatee | Conservation<br>Measures for<br>Manatee | Date of FO<br>Concurrence                   |
|-------|---|---|-------------------------------|---|---|
| LA    | Louisiana Marine Fisheries Enhancement, Research and Science Center   | Installation and Operation of water in-take and effluent pipes. | NLAA                          | S, D                                    | 5/16/2014                                   |
| LA    | Louisiana Outer Coast Restoration: North Breton   | Dredge operation; nourishment                                   | NLAA                          | S                                       | 5/9/2014                                    |
| LA    | Louisiana Outer Coast Restoration: Shell Island   | Dredge operation; nourishment                                   | NLAA                          | S                                       | 9/26/2012;<br>and<br>Requested<br>5/13/2014 |
| LA    | Louisiana Outer Coast Restoration: Chenier-<br>Ronquille  | Dredge operation; nourishment                                   | NLAA                          | S                                       | Requested 5/13/2014                         |
| LA    | Louisiana Outer Coast Restoration: Caillou Lake<br>Headlands (Whiskey Island)                                     | Dredge operation; nourishment                                   | NLAA                          | S                                       | 9/23/2010 and<br>8/12/2013                  |
| MS    | Hancock County Marsh Living Shoreline   | Placement of living shoreline materials; vessel use             | NLAA                          | S, T                                    | 1/24/2014 and<br>5/20/2014                  |
| MS    | Pascagoula Beachfront Promenade   | None  | NE                            | N/A                                     | 1/3/2014                                    |
| MS    | Popp's Ferry Causeway Park  | Installation of Piles for piers                                 | NLAA                          | T, S                                    | 1/24/2014                                   |
| MS    | Restoration Initiatives at the INFINITY Science<br>Center   | None  | N/A                           | N/A                                     |   |
| TX    | Development of Additional Artificial Reefs Ship   | Explosives to sink ship   | NE                            | N/A                                     | 12/2/2013                                   |
| TX    | Development of Nearshore Artificial Reefs in the<br>Texas Waters of the Gulf of Mexico, Freeport                  | Placement of artificial reef material; vessel use               | NE                            | N/A                                     | 12/2/2013                                   |
| TX    | Enhancement of the Matagorda Nearshore Artificial<br>Reef (BA-439) in Texas State Waters of the Gulf of<br>Mexico | Placement of artificial reef material; vessel use               | NE                            | N/A                                     | 12/2/2013                                   |
| TX    | Galveston Island State Park Beach Development   | None  | N/A                           | N/A                                     |   |
| TX    | Sea Rim State Park  | Installation of Piles   | NE                            | N/A                                     | 1/29/2014                                   |

## STANDARD MANATEE CONDITIONS FOR IN-WATER WORK 2011

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

- a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
- b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.
- d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
- e. Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or in Vero Beach (1-772-562-3909) for south Florida, and emailed to FWC at ImperiledSpecies@myFWC.com.
- f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8½ " by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at <a href="http://www.myfwc.com/WILDLIFEHABITATS/manatee\_sign\_vendors.htm">http://www.myfwc.com/WILDLIFEHABITATS/manatee\_sign\_vendors.htm</a>. Questions concerning these signs can be forwarded to the email address listed above.

# CAUTION: MANATEE HABITAT

All project vessels

# IDLE SPEED / NO WAKE

When a manatee is within 50 feet of work all in-water activities must

# SHUT DOWN

Report any collision with or injury to a manatee:



Wildlife Alert:

1-888-404-FWCC(3922)

cell \*FWC or #FWC

### APPENDIX A

Standard Conditions for In-water Work in the Presence of Manatees

### Guidelines for Activities in Proximity to Manatees and Their Habitat

- A. All personnel associated with the project should be informed of the potential presence of manatees, manatee speed zones, and the need to avoid collisions with and injury to manatees. Such personnel instruction should also include a discussion of the civil and criminal penalties for harming, harassing, or killing manatees, which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973.
- B. All contract and/or construction personnel are responsible for observing water-related activities for the presence of manatee(s).
- C. Temporary signs should be posted prior to and during all construction/dredging activities to remind personnel to be observant for manatees during active construction/dredging operations or within vessel movement zones (i.e., work area), and at least one sign should be placed where it is visible to the vessel operator.
- D. Siltation barriers, if used, should be made of material in which manatees could not become entangled, and should be properly secured and regularly monitored. Barriers should not impede manatee movement.
- E. If a manatee is sighted within 100 yards of the active work zone, special operating conditions should be implemented, including: no operation of moving equipment within 50 feet of a manatee; all vessels should operate at no wake/idle speeds within 100 yards of the work area; and siltation barriers, if used, should be re-secured and monitored. Once the manatee has left the 100-yard buffer zone around the work area on its own accord, special operating conditions are no longer necessary, but careful observations would be resumed.
- F. Any manatee sighting should be immediately reported to the Fish and Wildlife Service's (Service) Lafayette, Louisiana, Field Office (337-291-3100) and the Louisiana Department of Wildlife and Fisheries (LDWF), Natural Heritage Program (225-765-2821).

APPENDIX E: Dock Construction Guidelines in Florida for docks or other minor structures constructed in or over submerged aquatic vegetation (SAV), marsh, or mangrove habitat (U.S. Army Corps of Engineers/National Marine Fisheries Service, August 2001)

Note: These conditions may be subject to revision at any time. It is our intention that the most recent version of these conditions will be utilized during the evaluation of the permit application.

### **Submerged Aquatic Vegetation**

- 1. Avoidance. The pier shall be aligned so as to minimize the size of the footprint over SAV.
- 2. The height of pier shall be a minimum of 5 feet above Mean High Water / Ordinary High Water (MHW/OHW) as measured from the top surface of the decking.
- 3. The width of the pier is limited to a maximum of 4 feet. A turnaround area is allowed for piers greater than 200 feet in length. The turnaround is limited to a section of the pier no more than 10 feet in length and no more than 6 feet in width. The turnaround shall be located at the midpoint of the pier.
- 4. Portions of the pier over SAV shall be oriented in a north-south orientation to the maximum extent that is practicable.
- 5. If possible, terminal platforms shall be placed in deep water, waterward of SAV or in an area devoid of SAV.
  - a. If a terminal platform is placed over SAV areas and constructed of grated decking, the total size of the platform shall be limited to 160 square feet. The grated deck material shall conform to the specifications stipulated below. The configuration of the platform shall be a maximum of 8 feet by 20 feet. A minimum of 5 feet by 20 feet shall conform to the 5-foot height requirement; a 3-foot by 20-foot section may be placed 3 feet above MHW to facilitate boat access. The long axis of the platform should be aligned in a north-south direction to the maximum extent that is practicable.
  - b. If the terminal platform is placed over SAV areas and constructed of planks, the total size of the platform shall be limited to 120 square feet. The configuration of the platform shall be a maximum of 6 feet by 20 feet of which a minimum 4-foot wide by 20-foot long section shall conform to the 5-foot height requirement. A section may be placed 3 feet above MHW to facilitate boat access. The 3 feet above MHW section shall be cantilevered. The long axis of the platform should be aligned in a north-south direction to the maximum extent that is practicable. If the 3 feet above MHW section is constructed with grating material, it may be 3 feet wide.
- 6. One uncovered boat lift area is allowed. A narrow catwalk (2 feet wide if planks are used, 3 feet wide if grating is used) may be added to facilitate boat maintenance along the outboard side of the boat lift and a 4-foot wide walkway may be added along the stern

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end of the boat lift, provided all such walkways are elevated 5 feet above MHW. The catwalk shall be cantilevered from the outboard mooring pilings (spaced no closer than 10 feet apart).

- 7. Pilings shall be installed in a manner which will not result in the formation of sedimentary deposits ("donuts" or "halos") around the newly installed pilings. Pile driving is the preferred method of installation, but jetting with a low pressure pump may be used.
- 8. The spacing of pilings through SAV beds shall be a minimum of 10 feet on center.
- 9. The gaps between deck boards shall be a minimum of ½ inch.

#### Marsh

- 1. The structure shall be aligned so as to have the smallest over-marsh footprint as practicable.
- 2. The over-marsh portion of the dock shall be elevated to at least 4 feet above the marsh floor.
- 3. The width of the dock is limited to a maximum of 4 feet. Any exceptions to the width must be accompanied by an equal increase in height requirement.

#### Mangroves

- 1. The width of the dock is limited to a maximum of 4 feet.
- 2. Mangrove clearing is restricted to the width of the pier.
- 3. The location and alignment of the pier should be through the narrowest area of the mangrove fringe.