

## 9.00 Commitments to Reduce Impacts to Listed Species

The following list is a summary of environmental commitments to protect listed species related to the construction and maintenance of the proposed actions. These commitments address agreements with the USFWS, mitigation measures, and construction practices.

For Corps projects, please note that “fish and wildlife enhancement” activities (which are beyond mitigation of project impacts) must be authorized as a project purpose or project feature or must be otherwise approved through Corps headquarters (Engineer Regulation ER 1105-2-100 Appendix G, Amendment #1, 30 Jun 2004). At the present time, no beach fill placement or shore protection activity in Florida has fish and wildlife enhancement as a project purpose or project feature. Since adding fish and wildlife enhancement as a project purpose or feature is not a budgetary priority (ER 1105-2-100 22 Apr 2000, Appendix C, part C-3b.(3)), authorization and funding for such is not expected.

<b>Species</b>	<b>Commitments to Reduce Impacts to Listed Species</b>
<i>Roseate Tern</i>	(1) Avoid identified major nesting colony sites and avoid breeding and nesting time frames [limited to certain known nesting colonies in the Keys].
<i>Piping Plover</i>	(2) Adhere to appropriate windows to the maximum extent practicable.  (3) Implement survey guidelines for non-breeding shorebirds when appropriate. For Corps Civil Works projects, the “surveys” must be limited to the term of the construction unless they are otherwise authorized and funded (as used in this Section 9.00, “funded” means subject to availability and allotment).  (4) Pipeline alignment and associated construction activities may be modified to reduce impacts to foraging, sheltering, and roosting.  (5) Avoid impacts to the primary constituent elements of Piping Plover critical habitat to the maximum extent practicable.  (6) Pre-project surveys will be performed to assess the presence of and/or potential for washover fan formation.  (7) The USACE will work with the USFWS to develop shore protection design guidelines and/or mitigation measures that can be utilized during future project planning to protect and/or enhance high value Piping Plover habitat locations(i.e. washover

fans). For Corps Civil Works projects, "enhancement" must be limited to the extent authorized and funded as a project feature or project purpose.

(8) The USACE will work with the State of Florida DEP to consider the value and context of inlet habitat features (i.e. emergent spits, sand bars, etc.) within each inlets management plan and adjust future dredging frequencies, to the maximum extent practicable and consistent with applicable law, so that adjacent habitats are made available and total habitat loss would not occur at one time within a given inlet complex.

*Snowy Plover*

(9) Adhere to appropriate breeding windows to the maximum extent practicable.

(10) Dune features will be constructed and planted, to the maximum extent practicable, to minimize impacts to known existing breeding grounds by maintaining existing nesting habitat features. For Corps Civil Works projects, this must be limited to the extent that work on dune features is authorized and funded.

(11) The USACE will work with the State of Florida DEP to consider the value and context of inlet habitat features (i.e. emergent spits, sand bars, etc.) within each inlets management plan and adjust future dredging frequencies, to the maximum extent practicable, so that adjacent habitats are made available and total habitat loss would not occur at one time within a given inlet complex.

(12) Except for O&M disposal actions, if the breeding season can not be avoided, the USACE will work with the resource agencies in order to develop and implement a sufficient monitoring plan during construction in order to avoid construction impacts to Snowy Plover hatchlings.

(13) Except for O&M disposal actions, escarpments will be leveled immediately following sand placement on the beach prior to the breeding and nesting season (March through September) at known significant breeding grounds located on the Gulf of Mexico on isolated peninsulas and the protected parks at Caladesi Island, Fort DeSoto Park, and Cayo Costa.

*Red Knot*

(14) Beach fill placement activities will be constructed to allow for un-impacted foraging habitat locations and avoid large scale disruption to benthic invertebrates to the maximum extent practicable.

(15) Avoid roosting timeframes or provide appropriate buffers around existing roosting habitat during construction operations. [Mostly limited to portions of wider beaches not disturbed by people.]

*Manatee*

(16) Adhere to the “Manatee Protection Conditions”.

(17) Use of observers during hopper dredge operations.

*Beach Mice*

(18) Pipeline routes for beach construction projects will avoid identified primary constituent elements for critical habitat to the maximum extent practicable.

(19) Implementation of a trapping and relocation plan if avoidance alternatives are not practical.

(20) Implementation of a lighting plan to reduce, shield, lower, angle, etc. light sources in order to minimize illumination impacts on nocturnal beach mice during construction.

*Sea turtles*

(21) Avoid sea turtle nesting season to the maximum extent practicable.

(22) Except for O&M disposal actions, implement sea turtle nest monitoring and relocation plan during construction if nesting window cannot be adhered to.

(23) Except for O&M disposal actions, escarpments that are identified prior to or during the nesting season that interfere with sea turtle nesting (exceed 18 inches in height for a distance of 100 ft.) can be leveled to the natural beach for a given area. If it is determined that escarpment leveling is required during the nesting or hatching season, leveling actions should be directed by the USFWS. For Corps Civil Works projects, leveling of escarpments would be limited to the term of the construction or as otherwise may be authorized and funded.

(24) Placement of pipe parallel to the shoreline and as far landward as possible so that a significant portion of available nesting habitat can be utilized and nest placement is not subject to inundation or washout.

(25) Temporary storage of pipes and equipment will be located off the beach to the maximum extent practicable.

(26) The USACE will continue to work with the Florida DEP to

identify aspects of beach nourishment construction templates that negatively impact sea turtles and develop and implement alternative design criteria that may minimize these impacts.

(27) Except for O&M disposal actions, USFWS compaction assessment guidelines will be followed and tilling will be performed where appropriate. For Corps Civil Works projects, assessment of compaction and tilling would be limited to the term of the construction or as otherwise may be authorized and funded.

(28) All lighting associated with project construction will be minimized to the maximum extent practicable, through reduction, shielding, angling, etc., while maintaining compliance with all Corps, U.S. Coast Guard, and OSHA safety requirements.

*Beach Jacquemontia*

(29) For projects where known populations of beach jacquemontia exist, plant surveys will be performed, through coordination with USFWS, during the project design phase and prior to project commencement. Appropriate survey protocol will be adhered to and all beach jacquemontia plants will be flagged. For Corps Civil Works projects, these plant surveys would be limited to the term of the construction or as otherwise may be authorized and funded.

(30) Identified pipeline routes and associated construction activities will avoid flagged sites.