United States Department of the Interior

FISH AND WILDLIFE SERVICE
6620 Southpoint Drive, South
Suite 310
Jacksonville, Florida 32216-0912

IN REPLY REFER TO:

FWS Log No. 41910-08-I-0032

RECEIVED
NOV 26 2007

November 15, 2007

Mr. Richard Myers
Environmental Liaison Officer
Florida Long Term Office
Federal Emergency Management Agency
36 Skyline Drive
Lake Mary, Florida 32746

Re:	FWS Log No. 41910-2008-I-0032
Date Started:	August 27, 2007
Applicant:	FEMA
Project:	Repair and Replacement of Pre-existing Facilities Post-disaster of Federally Declared Disaster
Location:	Statewide Florida
Ecosystem:	North Florida, South Florida and NE Gulf

Dear Mr. Myers:

The U.S. Fish and Wildlife Service (Service) has received your letter concerning the ongoing programmatic consultation with the Federal Emergency Management Agency (FEMA) for repair and replacement of pre-existing facilities in Florida following a federally declared disaster. We received the request on August 27, 2007. Based on coordination between our agencies and commitments of conservation measures, FEMA has determined that certain post-disaster activities would not likely adversely affect federally protected species throughout the State of Florida (Table 1). In addition FEMA has determined that these activities would not cause adverse modification of critical habitat, if designated, for the species. The consultation is provided in accordance with section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 et seq.).

Table 1. Threatened and Endangered Species addressed in FEMA's biological assessment.

SPECIES COMMON NAME	SCIENTIFIC NAME	FEDERAL STATUS/CH[1]
MAMMALS		
Anastasia Island beach mouse	*Peromyscus polionotus phasma*	Endangered
Choctawhatchee beach mouse	*Peromyscus polionotus allophrys*	Endangered/CH
Perdido Key beach mouse	*Peromyscus polionotus trissyllepsis*	Endangered/CH
Southeastern beach mouse	*Peromyscus polionotus niveiventris*	Threatened
St. Andrew beach mouse	*Peromyscus polionotus peninsularis*	Endangered/CH
Key Largo cotton mouse	*Peromyscus gossypinus allapaticola*	Endangered
Key Largo woodrat	*Neotoma floridana smalli*	Endangered
Key deer	*Odocoileus virginianus clavium*	Endangered
West Indian manatee	*Trichechus manatus latirostris*	Endangered
BIRDS		
Audubon's crested caracara	*Polyborus plancus audubonii*	Threatened
Bald eagle	*Haliaeetus leucocephalus*	Species of concern
Florida scrub jay	*Aphelocoma coerulescens*	Threatened
Piping plover	*Charadrius melodus*	Threatened/CH
Red-cockaded woodpecker	*Picoides borealis*	Endangered
Roseate tern	*Sterna dougallii dougallii*	Threatened
REPTILES		
Green sea turtle	*Chelonia mydas*	Endangered[2]
Hawksbill turtle	*Eretmochelys imbricata*	Endangered
Kemp's ridley sea turtle	*Lepidochelys kempii*	Endangered
Leatherback sea turtle	*Dermochelys coriacea*	Endangered
Loggerhead sea turtle	*Caretta caretta*	Threatened
Blue-tailed mole skink	*Eumeces egregius lividus*	Threatened
Sand skink	*Neoseps reynoldsi*	Threatened
Eastern indigo snake	*Drymarchon corais couperi*	Threatened
FISH		
Gulf sturgeon	*Acipenser oxyrinchus desotoi*	Threatened/CH

Okaloosa darter	*Etheostoma okaloosae*	Endangered
INVERTEBRATES		
Chipola slabshell	*Elliptio chipolaensis*	Threatened
Fat threeridge	*Amblema neislerii*	Endangered
Gulf moccasinshell	*Medionidus penicillatus*	Endangered
Ochlockonee moccasinshell	*Medionidus simpsonianus*	Endangered
Oval pigtoe	*Pleurobema pyriforme*	Endangered
Purple bankclimber	*Elliptoideus sloatianus*	Threatened
Shiny-rayed pocketbook	*Lampsilis subangulata*	Endangered
Stock Island tree snail	*Orthalicus reses*	Threatened
Schaus swallowtail butterfly	*Heraclides aristodemus ponceanus*	Endangered
PLANTS		
Beach jacquemontia	*Jacquemontia reclinata*	Endangered
Cooley's water-willow	*Justicia cooleyi*	Endangered
Deltoid spurge	*Chamaesyce deltoidea ssp. deltoidea*	Threatened
Florida bonamia	*Bonamia grandiflora*	Threatened
Florida goldenaster	*Chrysopsis floridana*	Endangered
Garber's spurge	*Chamaesyce garberi*	Threatened
Garrett's mint	*Dicerandra christmanii*	Endangered
Harper's beauty	*Harperocallis flava*	Endangered
STATUS	**DEFINITION**	
Endangered	A taxon "in danger of extinction throughout all or a significant portion of its range."	
Threatened	A taxon "likely to become endangered within the foreseeable future throughout all or a significant portion of its range."	
CH: Critical Habitat	The specific areas within the geographic area occupied by a species, on which are found those physical or biological features (1) essential to the conservation of the species and (2) that may require special management considerations or protection; and (3) specific areas outside the geographic area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.	

Consultation History

Following the hurricane seasons of 2004 and 2005, FEMA and the Department of Interior entered into a cooperative funding agreement HSFELA-06-X-0074, dated September 1, 2006, to streamline the Act's section 7 consultation process for FEMA funded actions for federally

declared disaster response and recovery. Based on correspondence from the Service's South Florida Field Office dated December 15, 2005, FEMA and the Service initiated coordination with an interagency meeting on February 8, 2006 and subsequently with a meeting that included the State of Florida Emergency Management Agency on August 17, 2006, and continued coordination via telephone or email. FEMA and the Service agreed to conduct program level consultations for the replacement of berms along the ocean shorelines statewide and to repair and replace pre-existing facilities that qualify under the Stafford Act (42 USC 5121 et seq.) following a federally declared disaster. FEMA provided the Service with a request for consultation concerning the post-disaster repair and replacement of pre-existing facilities in Florida dated August 20, 2007. Included in the request was a Programmatic Biological Assessment (BA) which included Conservation Measures (Appendix A) to avoid and minimize impacts to listed species. Following receipt of the request, the Service and FEMA conducted numerous discussions to refine the Conservation Measures.

Description of Activities:

The FEMA administers Federal programs for response to, recovery from, and preparation for, disasters. Typically, such disasters are related to extreme natural events such as floods, wildfires, and hurricanes, but may also include human caused disasters such as explosions and fires. The proposed action includes FEMA grant funded repair and replacement of pre-existing structures and facilities following federally declared disasters in nearshore coastal waters and adjacent rivers, and uplands in Florida. Individual work sites will be determined by the location of the declared disaster and may be present anywhere statewide and along the Atlantic and Gulf coasts of Florida. FEMA regulations require that post-disaster response activities must be confined to locations having improved property. These structures and facilities must be replaced based upon pre-disaster conditions with regard to function, location, and capacity. Minor upgrades may be permitted as needed to meet current codes and standards.

FEMA grouped the majority of typical recurring post-disaster recovery actions that qualify for funding by type, action, or location (Table 2). These groups of actions, provided they can meet specified criteria, may be evaluated programmatically. These activities can be implemented in a manner such that they would not result in adverse effects to federally listed threatened or endangered species or result in adverse modification of critical habitat designated for any of these species.

Table 2: Actions to be covered under the consultation.

1.0 STRUCTURAL REPAIRS and RESTORATION
Repair or replacement of boardwalks, dune walkovers
Repair or replacement of roofs
Repair or replacement of lifeguard towers/stations
Repair of replacement of boat docks
Repair or replacement of signs (including on-water signage)
Repair or replacement of toll plazas
Placement of temporary housing or trailers in previously disturbed areas; developed urban areas (*e.g.*, parking lots, runways, industrial parks, campgrounds mobile home parks), maintained agricultural fields and pastures, and other areas that have been previously cleared within the past year.
Repair of culverts

Repair or replacement of fences
Repair or replacement of restrooms (public)
Repair or replacement of gazebos, pavilions
Repair or replacement of tram shelters
Repair or replacement of storage buildings, sheds
Repair or replacement of pedestrian cross walk flashing lights
Restoration of beach access
Repair of parking lots
Repair or replacement of boat ramps
Repair or replacement of retaining walls
Repair or replacement of piers and docks (see **5.0 REPAIR OF IN WATER STRUCTURES OR DRAINAIGE STRUCTURES NOT ASSOCIATED WITH ROADS OR STRUCTURES)**
Relocation of facilities to environmentally better locations (public)
2.0 REPAIR OF ROADS
Repair or replacement of bridges and bridge embankments
Repair or replacement of roadways
Repair of culverts
3.0 DEBRIS REMOVAL and CLEAN UP
Shoreline debris removal
In water debris removal including derelict vessels
4.0 BEACH AND DUNE RESTORATION (other than beach berms)
Sand scraping
Planting vegetation
Dune restoration using upland sources of material
Sand fence installation
5.0 REPAIR OF IN-WATER STRUCTURES OR DRAINAGE STRUCTURES NOT ASSOCIATED WITH ROADS
Piers and docks
Navigation, channel or other in-water marker repairs and/or replacements and removals of downed markers
Drainage improvements (including replacement or repair of culverts and stormwater drains)
Erosion control

Conservation Measures:

FEMA, in coordination with the Service prepared the Conservation Measures (measures) (Appendix A). The measures were designed to identify the post-disaster activities to be implemented and for each action, the measures needed to avoid or minimize impacts to individual or groups of species. When the measures are correctly implemented the action would not likely adversely affect the identified species or modify their designated critical habitat. The measures were prepared to facilitate FEMA personnel and funding recipients to easily determine what measures are needed for each post-disaster action and provide for the conservation of each species. The measures allow for the activities to occur for the duration of the FEMA funding (usually for up to three (3) years post-disaster). FEMA will provide the Service, on an annual basis, with a list of projects undertaken in accordance with this consultation and the conservation measures.

FEMA will ensure that:

1. Applicants are notified (1) when their project is located in an area that may be inhabited by a federally listed threatened or endangered species; and (2) that compliance with the Conservation Measures is required. (The Service will be notified whenever a FEMA grant project is located in an area that is thought to be inhabited by federally listed species.)
2. Projects that could not fully comply with the measures would undergo more in-depth review as needed to ensure compliance. Those projects that are subsequently modified and could comply with the measures would be covered under the programmatic consultation.
3. Whenever it is determined that an ongoing or completed project cannot fully comply with the measures, FEMA will notify the Service and advise the applicant that individual section 7 consultation is required.

FEMA has also provided for conservation of nesting shorebirds not federally protected under the Act.

Summary of Determination of Effects to Listed Species: Table 1 provides the list of species in Florida that are covered under this consultation. Table 2 provides a list of the type of post-disaster recovery activities in Florida covered under this consultation. Appendix A provides the measures to be implemented for each type of activity and the species covered under the activity.

Commitment of Conservation Measures: FEMA has committed to requiring funding recipients to implement the measures or seek individual section 7 consultation. Reporting will be required to ensure that the measures have been implemented and completed as required.

U.S. Fish and Wildlife Service Concurrence: The Service concurs with FEMA's determination of post-disaster recovery for pre-existing facilities on listed species and their designated critical habitat in Florida based on the information presented in the BA and subsequent discussions and written correspondence, indicating commitment to the measures that avoid or minimize impacts to the species.

Reinitiation: This concludes consultation on the action outlined in your request and based on the BA and additional coordination. As provided in 50 CFR §402.16, reinitiation of consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) new information reveals effects of the agency action may affect listed species or critical habitat in a manner or to an extent not considered in this consultation; (2) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this consultation; or (3) a new species is listed or critical habitat designated that may be affected by the action. In instances where take occurs that is not anticipated, any operations causing such take must cease immediately pending reinitiation of consultation.

The Service appreciates your partnership approach to cooperatively seek solutions for streamlining post-disaster recovery efforts under FEMA's responsibility.

If you have any questions, please contact Ann Marie Lauritsen of this office at (904) 525-0661, Lorna Patrick of the Panama City Field Office at (850) 769-0552 or Jeffrey Howe of the South Florida Field Office at (772) 562-3909.

Sincerely,

for David L. Hankla
Field Supervisor

Cc:
FWS, South Florida Field Office, Vero Bch, FL
FWS, Panama City Field Office, Panama City, FL

Appendix A

Post-disaster Conservation Measures for the FEMA-funded repair and replacement of preexisting facilities in Florida
Implementation of these measures would result in a determination of Not Likely to Adversely Affect (NLAA)

1.0 STRUCTURAL REPAIRS and RESTORATION
Repair or replacement of boardwalks, dune walkovers
Repair or replacement of roofs
Repair or replacement of lifeguard towers/stations
Repair of replacement of boat docks
Repair or replacement of signs (including on-water signage)
Repair or replacement of toll plazas
Placement of temporary housing or trailers in previously disturbed areas; developed urban areas (*e.g.*, parking lots, runways, industrial parks, campgrounds mobile home parks), maintained agricultural fields and pastures, and other areas that have been previously cleared within the past year.
Repair of culverts
Repair or replacement of fences
Repair or replacement of restrooms (public)
Repair or replacement of gazebos, pavilions
Repair or replacement of tram shelters
Repair or replacement of storage buildings, sheds
Repair or replacement of pedestrian cross walk flashing lights
Restoration of beach access
Repair of parking lots
Repair or replacement of boat ramps
Repair or replacement of retaining walls
Repair or replacement of piers and docks (see **5.0 REPAIR OF IN WATER STRUCTURES OR DRAINAIGE STRUCTURES NOT ASSOCIATED WITH ROADS OR STRUCTURES)**
Relocation of facilities to environmentally better locations (public)
2.0 REPAIR OF ROADS
Repair or replacement of bridges and bridge embankments
Repair or replacement of roadways
Repair of culverts
3.0 DEBRIS REMOVAL and CLEAN UP
Shoreline debris removal
In water debris removal including derelict vessels
4.0 BEACH AND DUNE RESTORATION other than beach berms
Sand scraping*
Planting vegetation
Dune restoration using upland sources of material
Sand fence installation*
5.0 REPAIR OF IN-WATER STRUCTURES OR DRAINAGE STRUCTURES NOT ASSOCIATED WITH ROADS
Piers and docks
Navigation, channel or other in-water marker repairs and/or replacements and removals of downed markers
Drainage improvements (including replacement or repair of culverts and stormwater drains)
Erosion control

1. STRUCTURAL REPAIRS and RESTORATION

Structural repair. Repair and replacement of previously permitted structures in their original footprint are authorized under the following conditions:

1.1 Coastal Peninsular Florida (Projects within or contiguous to the beachfront and dunes in Nassau, Duval, St. Johns, Flagler, Volusia, Brevard, Indian River, St. Lucie, Martin, Palm Beach, Broward, Dade, Monroe, Collier, Lee, Sarasota, Manatee, and Pinellas counties, Atlantic Ocean and southern Gulf of Mexico)

Beach mice: The Anastasia beach mouse occurs in Volusia and St. Johns counties and the Southeastern beach mouse occurs in Volusia, Indian River, St. Lucie, and Brevard counties.

a. Repair or replacement of structures shall occur in the same location or footprint of the previously permitted structure unless it has been determined to be environmentally better to relocate the structure.

b. Construction equipment and vehicle staging/ parking/ storage areas should be located on paved surfaces and outside of vegetated areas.

c. Movement of equipment and vehicles shall be restricted to roadways and roadbeds or outside of vegetated areas or areas of storm-buried vegetation.

d. All activity associated with the project shall be confined to daylight hours.

e. No excavation of material shall occur outside of the previous footprint of the structure.

f. Fence shall be installed along the project work boundaries to prevent access into adjacent beach mouse habitat. The fence shall allow movement of beach mice and prevent construction work trespass.

Sea turtles: The majority of sea turtle nesting surveys programs in this area do not mark individual nests because of the large number of nests. Thus, it is not feasible to implement avoidance and minimization measures to protect the nests.

a. Repair or replacement of structures shall occur in the same location or footprint of the previously permitted structure unless it has been determined to be environmentally better to relocate the structure.

b. All activity shall be confined to daylight hours and shall not occur prior to 9:00 a.m. following the completion of all necessary sea turtle surveys and conservation activities. No construction related lights shall be used during the nesting season.

c. During the early and late periods of the sea turtle nesting season (March 1 to April 30 and November 1 to November 30) but, outside the peak period, surveys for early and late

nesting sea turtles must be conducted. If nests are reported in the area of construction, the nest must be marked and avoided with a 10 foot buffer.

d. During the sea turtle nesting season (May 1 through October 31) work shall be allowed, except as noted, provided the following measures are implemented.

   1) Repair and restoration work shall only be conducted from a position landward of the dune vegetation with no physical intrusion onto the beach or dunes.

   2) Fence shall be installed to designate the construction work areas off the beach and all equipment and activities shall be kept inside these areas.

Piping plover: Piping plover are found statewide in Florida during their migration and non-breeding seasons for approximately 10 months of the year. Optimal habitat consists of washover passes, inlets, lagoons, and mud and sand flats.

a. Prior to construction, a survey for optimal non-breeding piping plover habitat shall be conducted in the project area. Optimal piping plover habitat whether existing or newly created by storm events shall be avoided to the maximum extent practicable. Surveys shall be performed by personnel having knowledge and experience in identification of piping plovers and knowledge of their roosting and feeding habits and requirements.

b. Surveys for non-breeding piping plover shall be conducted daily starting two weeks prior to project initiation for the duration of the project between July 15 and May 15, if optimal non-breeding piping plover habitat is documented in the project area. If the project does not begin until after July 15, then surveys must start on July 15 and continue throughout the project construction period until May 15, which ever comes first. Locations of observed piping plovers shall be documented and reported. Surveys shall be conducted by trained personnel and must be conducted in accordance with monitoring guidelines supplied by the U.S. Fish and Wildlife Service (Service) (except daily versus twice monthly surveys are required). Data sheets must be completed for each daily survey, including negative reports. Locations of observed piping plovers must be recorded using latitude and longitude (GPS points preferred) and reported to the Service following project completion.

c. Piping plover surveys shall be required following construction if piping plovers were documented prior to or during construction. These surveys shall be conducted daily for two weeks following completion of the entire project. Surveys shall be conducted in accordance with survey guidelines.

d. The results of the daily piping plover survey shall be submitted to the Service with maps documenting the locations of piping plovers (with GPS coordinates or latitude and longitude coordinates) if seen during the survey period.

e. When piping plovers are observed "Disturbance-Free Zones" will be posted and roped off at least 300 feet away from the construction areas where potential bird resting and feeding are occurring.

f. No boardwalks shall be reconstructed or repaired that funnel pedestrians to a washover area or other optimal piping plover habitat.

Nesting shorebirds
See requirements for nesting shorebird surveys under "Other Requirements" section.

Roseate tern: Roseate terns are found year round in Miami-Dade and Monroe counties.

a. Prior to initiation of repair and replacement work in Miami-Dade and Monroe counties, project sites shall be surveyed to determine whether suitable nesting habitat for roseate tern is present. Surveys shall be performed by personnel having knowledge and experience in identification of roseate tern and knowledge of their nesting habits and requirements.

b. All potential roseate tern nesting sites located within 100 feet of project work sites shall be identified and marked and subsequent monitoring of nesting shall be performed while construction is underway.

c. During the roseate tern nesting season (May through July), no work shall take place in the vicinity of the four major identified nesting colony sites in South Florida (Pelican Shoal, Vaca Rock, Truman Annex, and the Marathon Governmental Center). For projects located in these areas the applicant may elect to notify the Service in order to determine whether exemption from seasonal work restrictions is allowable.

d. In connection with item b. above, all potential roseate tern nesting sites located within 100 feet of project work sites shall be identified and marked. Subsequent surveys for presence of nesting shall occur following initiation of construction is and shall be performed at least weekly during the construction period. If roseate tern nesting activity is observed, then the nesting location shall be marked and surveyed daily. Results of nesting success/failure shall be documented and provided to the Service.

e. When the repair and replacement work is performed outside of the roseate tern nesting season, no work shall take place within100 feet of nesting habitat.

Beach jacquemontia: The beach jacquemontia is known from locations on barrier islands on the southeastern Florida coast from Miami, Dade County to Palm Beach County, specifically: Palm Beach County (eight sites), Broward County (two sites), and Miami-Dade County (two sites).

a. Surveys shall be performed in all sites where beach jacquemontia is known or reported to exist, including areas within 500 feet of those locations. Surveys shall be performed by personnel who have training and/or experience in identification of beach jacquemontia.

b. Surveys shall be performed during the growing season of beach jacquemontia or, at a minimum, when dormant vegetation is present. Plant locations must be recorded using GPS, photographs, and written descriptions of the location and extent of growth. To preclude intentional or unintentional disturbance or harm, the exact location of plants shall not be marked until necessary for construction design, surveys, and implementation. Marking of plant locations shall use non-invasive, temporary techniques such as pin flagging.

c. Construction, including temporary storage of equipment, materials, and supplies; work related walkways, rest/break areas, parking areas; or trash and refuge storage sites may occur from November 1 through February 28 and shall be located a minimum of 25 feet away from any area known to support beach jacquemontia.

d. Unless otherwise directed by the Service, all site markings shall be fully removed following work completion.

e. Following completion of construction, all marked sites shall be re-inspected. Any disturbance to beach jacquemontia shall be photographed and recorded in a narrative report. Damage to beach jacquemontia must be immediately reported to the Service's South Florida Ecological Services Field Office.

Garbers spurge: Garber's spurge is currently known from about 17 populations, including two in Miami-Dade County, and one at Cape Sable (on two Capes) and on 14 islands in the Keys in Monroe County (Bahia Honda Key, Big Torch Key, Boca Grande Key, Crawl Key, Key Largo, Cudjoe Key, Fat Deer Key, Grassy Key, Long Key, Long Point Key, Lower Matecumbe Key, Marquesas Keys, Sugarloaf Key, Summerland Key).

a. Surveys for Garbers spurge shall be performed in all project areas, including adjacent sites located within 500 feet of locations where Garbers spurge is known or reported to exist. Surveys shall be performed by personnel who have training and/or experience in identification of Garbers spurge.

b. Surveys shall be performed during the growing season. Plant locations shall be recorded using GPS, photographs, and written descriptions of the location and extent of growth. To preclude intentional or unintentional disturbance or harm, the exact location of plants shall not be marked until needed for construction related surveys and project design and implementation. Marking of plant locations shall use non-invasive, temporary techniques such as pin flagging.

c. Construction, including temporary storage of equipment, materials, and supplies; work related walkways, rest/break areas, parking areas; or trash and refuge storage sites may occur from November 1 through February 28 and shall be a minimum of 25 feet away from any area known to support Garbers spurge.

d. Unless otherwise directed by the Service, all site markings shall be fully removed following work completion.

e. Following completion of construction, all marked sites shall be re-inspected. Any disturbance to Garbers spurge shall be photographed and recorded in a narrative report. Any disturbance must be immediately reported to the U.S. Fish and Wildlife Service's South Florida Ecological Services Field Office.

1.2 Coastal Panhandle Florida (Projects within or contiguous to the beachfront and dunes in Escambia, Santa Rosa, Okaloosa, Walton, Bay, Gulf, and Franklin counties along the Gulf of Mexico)

Beach mice: The Perdido Key beach mouse occurs in Escambia County, the Choctawhatchee beach mouse occurs in Okaloosa, Walton, and Bay counties, and the St. Andrew beach mouse occurs in Bay and Gulf counties.

a. Repair or replacement of structures shall occur in the same location or footprint of the previously permitted structure unless it has been determined to be environmentally better to relocate the structure.

b. Construction equipment and vehicle staging/ parking/storage areas should be located on paved surfaces and outside of vegetated areas.

c. Movement of equipment and vehicles shall be restricted to roadways and roadbeds or outside of vegetated areas or areas of storm-buried vegetation.

d. All activity associated with the project shall be confined to daylight hours.

e. No excavation of material outside of the previous footprint of the structure.

f. Fence shall be installed along the project property boundaries to prevent access into adjacent beach mouse habitat. The fence shall allow movement of beach mice and prevent construction work trespass.

Sea turtles: Sea turtle nesting surveys in these counties mark all the nests. Thus, it is feasible to implement avoidance and minimization measures to protect the nests. During the sea turtle nesting season (May 1 through October 31) work shall be allowed provided the following measures are implemented.

a. Repair or replacement of structures must occur in the same location or footprint of the previously permitted structure unless it has been determined to be environmentally better to relocate the structure.

b. Repair work shall be conducted to the greatest extent practicable from landward positions with minimal equipment intrusion on to the beach.

c. Use of equipment on the beach shall is allowable provided it is taken off the beach by 8:00 p.m. every night and County/City approved designated beach accesses are used. All driving on the beach shall be restricted to the area waterward of the mean high tide line.

d. All activity shall be confined to daylight hours and shall not occur prior to 9:00 a.m. following the completion of all necessary sea turtle surveys and conservation activities.

e. Silt fencing shall be installed to designate construction areas and confine all equipment and activities inside these areas.

f. All excavations and temporary alteration of beach topography shall be filled, covered, or leveled to the natural beach profile prior to 8:00 p.m. each day.

g. No projects may occur within ten (10) feet of a marked sea turtle nest.

h. Relocation of sea turtle nests to accommodate construction is not authorized.

Piping plover: Piping plover are found statewide in Florida during their migration and non-breeding seasons for approximately ten (10) months of the year. Optimal habitat consists of washover passes, inlets, lagoons, and mud and sand flats.

a. Prior to construction, a survey for optimal non-breeding piping plover habitat (washover passes, inlets, lagoons, mud and sand flats) shall be conducted in the project area. Optimal piping plover habitat whether existing or newly created by storm events shall be avoided to the maximum extent practicable. Surveys shall be performed by personnel having knowledge and experience in identification of piping plovers and knowledge of their roosting and feeding habits and requirements.

b. Surveys for non-breeding piping plover shall be conducted daily starting two weeks prior to project initiation for the duration of the project between July 15 to May 15, if optimal non-breeding piping plover habitat is documented in the project area. If the project does not begin until after July 15, then surveys must start on July 15 and continue throughout the project construction period until May 15, which ever comes first. Locations of observed piping plovers shall be documented and reported. Surveys shall be conducted by trained personnel and must be conducted in accordance with monitoring guidelines supplies by the Service (except daily versus twice monthly surveys are required). Data sheets must be completed for each daily survey, including negative reports. Locations of observed piping plovers must be recorded using latitude and longitude (GPS points preferred) and reported to the Service following project completion.

c. Piping plover surveys shall be required following construction if piping plovers were documented prior to or during construction. These surveys shall be conducted daily for two weeks following completion of the entire project. Surveys shall be conducted as described above.

d. The results of the daily piping plover survey must be submitted to the Service with maps documenting the locations of piping plovers (with GPS coordinates or latitude and longitude coordinates) if seen during the survey period.

e. When piping plovers are observed, "Disturbance-Free Zones" will be posted and roped off at least 300 feet away from the construction areas where potential bird resting and feeding are occurring.

f. No boardwalks shall be reconstructed or repaired that funnel pedestrians to a washover area or other optimal habitat.

Nesting shorebirds
See requirements for nesting shorebird surveys under "Other Requirements" section.

1.3 Upland Areas (Terrestrial, Forested Habitat)

Bald eagle: Active bald eagle territories may be located near the proposed project. The Service has removed (delisted) the bald eagle from the list of threatened and endangered species because the bald eagle population has recovered in the lower 48 states, threats to the species have been reduced or eliminated, and reproductive success has significantly increased. However, the bald eagle will continue to be managed and protected by the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act.

a. For projects that are farther than 660 feet from a bald eagles nest, no additional analysis or conservation measures are required.

b. For projects that occur within 660 feet of a nest refer to the discussion below:

   Bald eagles are unlikely to be disturbed by routine use of roads, homes, and other facilities where such use predates the eagle's successful nesting activity in a given area. Therefore, in most cases, repair and replacement of preexisting facilities may take place provided that the activities after repair and replacement proceed with the same intensity prior to the disaster. However, the actual repair and construction activities may result in short term disturbance to the eagles. Therefore, nesting season considerations as discussed below will be implemented:

   For all projects, exterior construction activities and site work within 660 feet of an eagles nest will be outside of the nesting season (October 1-May 15). Site work is defined as all infrastructure work, including roads, sewer and power lines, fill, and excavation work. Heavy construction activity during the nesting season will be avoided. In the event that site work and exterior building construction is unavoidable during the nesting season the bald eagle monitoring guidelines should be initiated. The monitoring guidelines are posted on our website at http://www.fws.gov/northflorida/BaldEagles/bald-eagles.htm.

For activities that involve projects other than repair and replacement of pre-existing facilities (e.g. improvement projects and temporary housing placement) the buffer zones as identified on page 12 of National Bald Eagle Management Guidelines shall be provided around eagle nests. The National Guidelines are posted on the Service web site at http://www.fws.gov/northflorida/BaldEagles/bald-eagles.htm.

Lost, inactive, or abandoned nests: Where nests are blown from trees during storms or otherwise destroyed by the elements, continue to protect the nest site in the absence of the nest for up to three complete breeding seasons. Many eagles may rebuild the nest and reoccupy the site. In the case of inactive (unused) nests, but which remain intact or partially intact: the nest should be protected through five (5) complete breeding seasons, after which time the National Guidelines no longer apply.

Red-cockaded woodpecker: Surveys for red-cockaded woodpecker (RCW) shall be conducted within the area to determine if suitable RCW nesting or foraging habitat may be affected. Suitable nesting habitat is defined as pine, pine/hardwood, and hardwood/pine stands that contain pines 60 years in age or older. Suitable foraging habitat is defined as a pine or pine/hardwood stand of forest, woodland, or savannah in which 50 percent or more of the dominant trees are pines and the dominant pine trees are generally 30 years in age or older.

a. If no suitable nesting or foraging habitat is present within the project impact area, further assessment is unnecessary and structure repair or restoration may be completed.

b. If no suitable nesting habitat is present within the project impact area, but suitable foraging habitat is present and may be impacted, potential use of this foraging habitat by groups outside the project boundaries shall be determined. This is done by identifying any potential nesting habitat within 0.5 mile of the suitable foraging habitat that would be impacted by the project. Any potential nesting habitat is then surveyed for cavity trees. If no active clusters are found, further assessment is unnecessary and structure repair or restoration may be completed.

c. If one or more active clusters are found, a foraging habitat analysis shall be conducted to determine whether sufficient amounts of foraging habitat will remain for each group post-project. More details on the red cockaded woodpecker survey protocol are available in Appendix 4 of the RCW Recovery Plan for this species at: http://ecos.fws.gov/docs/recovery_plans/2003/030320.pdf

Eastern indigo snake: The primary habitat of the indigo snake is xeric upland communities (especially the longleaf pine-turkey oak-wiregrass association) interspersed with wetland habitats such as drainageways, river swamps and cypress ponds.

a. An eastern indigo snake protection/education plan provided to FEMA by the Service (Attachment A) shall be distributed to all construction personnel. The educational materials for the plan will consist of a combination of posters and pamphlets. Informational signs should be posted throughout the construction site and along any

proposed access road to contain the following information:

1) a description of the eastern indigo snake, its habits, and protection under Federal law;
2) instructions not to injure, harm, harass or kill this species;
3) if a snake is observed, directions to cease clearing activities and allow the eastern indigo snake sufficient time to move away from the site on its own before resuming clearing;
4) telephone numbers of pertinent agencies to be contacted if a dead eastern indigo snake is encountered. The dead specimen should be thoroughly soaked in water and then frozen.

b. If not currently authorized through an Incidental Take Statement in association with a Biological Opinion, only individuals who have been either authorized by a section 10(a)(1)(A) permit issued by the Service, or by the State of Florida through the Florida Fish and Wildlife Conservation Commission (FWC) for such activities, are permitted to come in contact with an eastern indigo snake.

c. An eastern indigo snake monitoring report shall be submitted to the appropriate Florida Field Office within 60 days of the conclusion of clearing phases. The report shall be submitted whether or not eastern indigo snakes are observed. The report should contain the following information:

1) any sightings of eastern indigo snakes and
2) other obligations required by the FWC, as stipulated in the permit.

Florida scrub-jay: The scrub jay inhabits fire dominated, low-growing, oak scrub habitat found on well-drained sandy soils.

Disaster response activities shall avoid working in or staging equipment in xeric oak scrub habitat. The Service or the FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

Sand skink and Bluetailed mole skink: The sand skink is principally found in rosemary scrub, but also in sand pine and oak scrubs, scrubby flatwoods, turkey oak ridges within scrub, and even along edges of citrus groves occupying former scrub. The bluetailed mole skink is found in well-drained sandy uplands above 100 feet, usually with an abundance of scattered shrubs and lichens. This species favors rosemary, oak, and sand pine scrubs; occasional in turkey oak barrens, sandhill, and xeric hammock.

Disaster response activities shall avoid working in or staging equipment in areas of scrub habitat and other sparsely vegetated lands that contain less the 50 percent vegetative cover such as sandy areas of the high pine community, active and abandoned citrus groves, over-grazed pastures, and other disturbed areas. The Service or FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

Audubon's crested caracara: The caracara are non-migratory and are found in open country, including dry prairie and pasture lands with cabbage palm, cabbage palm/live oak hammocks, and shallow ponds and sloughs. Preferred nest trees are cabbage palms, followed by live oaks.

Disaster response activities shall avoid working in or staging equipment within 1,000 feet of a known caracara nest. The Service or FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

1.4 Rocklands

Key Largo wood rat, Key Largo cotton mouse, Schaus swallowtail butterfly, Key deer, and Stock Island tree snail: Within the Florida Keys, disaster response activities shall avoid working in or staging equipment in areas of hardwood hammock or other undisturbed areas containing native vegetation (see specific areas below for each species). The Service or FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

Key Largo wood rat: Old Rhodes Key, Key Largo, and Plantation Key.

Key Largo cotton mouse: All of Key Largo south to Tavenier.

Schaus swallowtail butterfly: Sands Key, Elliott Key, Old Rhodes Key, Key Largo, Plantation Key, Windley Key, Upper and Lower Matecumbe Keys, and Craig Key.

Stock Island tree snail: Raccoon Key, Stock Island, Key West, Dredgers Key, and Flemming Key.

Key Deer: Bahia Honda Key, No-Name Key, Big Pine Key, Little Torch Key, Middle Torch Key, Big Torch Key, Ramrod Key, Summerland Key, Cudjoe Key, Sugaloaf Key, and Saddlebunch Keys

1.5 Wetlands or In-water areas (marine, estuarine, riverine aquatic and shoreline habitats)

Okaloosa darter: The Okaloosa darter is known only from six small basins that drain into Boggy Bayou and Rocky Bayou of Choctawhatchee Bay: Toms, Turkey, Mill, Swift, East Turkey, and Rocky creeks, Okaloosa and Walton counties, Florida.

In these counties all culverts to be replaced shall have appropriately-sized bottomless structures.

Gulf sturgeon: Gulf sturgeon are found during the warmer months in the Yellow, Blackwater, Choctawhatchee, Apalachicola, Ochlocknee, and Suwannee rivers and the colder months in the central and eastern Gulf of Mexico waters. In these locations and seasons the following measures shall be implemented.

a. Pictures and/or diagrams of Gulf sturgeon shall be posted at each worksite.

b. All vessels and vehicles shall be operated according to navigational rules and prudent seamanship. No operation that may harass or threaten any marine life shall be allowed.

c. If a Gulf sturgeon is spotted within 100 feet of a vessel or work crew, the vessel and crew shall slow down or stop (as situation merits) until the animal leaves the areas of its own volition. Under NO circumstance shall any action be undertaken to cause a change in the animal's behavior.

d. Supervisory personnel shall be notified; and he/she shall ensure that items b. and c. are performed.

Manatee: FEMA shall process the project activity through the most recent version of *The Corps of Engineers, Jacksonville District, and the state of Florida Effect Determination Key for the Manatee in Florida* (July 2005), located at http://www.saj.usace.army.mil/regulatory/what/species/manatee.htm., to determine when to implement the July 2005 Standard Manatee Conditions for In-Water Work. Funded projects with in-water activities occurring within Important Manatee Areas, or adversely affecting submerged or emergent aquatic vegetation or mangrove, will require further consultation to determine what additional special measures to include as conditions of the activities. Watercraft involved in any such activity must adhere to all Federal, State, and local speed zone or other regulations intended to protect manatees and their habitat.

Key Deer: Within the Florida Keys (Bahia Honda Key, No-Name Key, Big Pine Key, Little Torch Key, Middle Torch, Key, Big Torch Key, Ramrod Key, Summerland Key, Cudjoe Key, Sugarloaf Key, and Saddlebunch Keys) disaster response activities shall avoid working in or staging equipment in areas of buttonwood wetlands, mangrove wetlands, and freshwater wetlands or other undisturbed areas containing native vegetation. The Service or FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

Wood stork: Wood stork nest colonially in a variety of inundated forested wetlands, including cypress strands and domes, mixed hardwood swamps, sloughs, and mangroves. The birds forage mainly in shallow water in freshwater marshes, swamps, lagoons, ponds, tidal creeks, flooded pastures and ditches, where they are attracted to falling water levels that concentrate food sources (mainly fish).

a. No work shall be conducted within 2,500 feet of a nesting colony site unless approval is provided by the Fish and Wildlife Service.

b. The work shall not cause negative impacts to nesting habitat and nearby vegetative cover or vegetation used for nest building. No work shall occur within 2,500 feet of a nesting colony.

c. The work shall not result in wetland loss within a nesting colony site.

d. The work shall not result in negative impacts to the nesting habitat, vegetative cover, or the nearby vegetation used to collect nesting material or for roosting within 2,500 feet of the nesting colony site.

e. Where work results in habitat loss, mitigation shall include restoration or creation ratio of 1:1 like for like wetlands within 2,500 feet of the nesting colony site.

f. No work shall be conducted during the early segment of nesting season from March 1 to May 30 and all restoration or creation activities shall be concluded prior to the next nesting season.

2.0 ROADWAY REPAIR

2.1 Coastal Peninsula and Panhandle Florida (Projects within or contiguous to the beachfront and dunes in Nassau, Duval, St. Johns, Flagler, Volusia, Brevard, Indian River, St. Lucie, Martin, Palm Beach, Broward, Dade, Monroe, Collier, Lee, Sarasota, Manatee, Pinellas, Escambia, Santa Rosa, Okaloosa, Walton, Bay, Gulf, and Franklin counties, Atlantic Ocean and Gulf of Mexico)

Sea turtles, beach mice, piping plover, and listed plants: Work may be completed during any time period provided the following guidelines are implemented.

a. All repairs shall occur within or as close as possible to the footprint of the original road.

b. Beach mice may use or occupy road right-of-way (ROW) associated with these activities. Repair and reconstruction work shall be restricted to mowed, maintained ROWs to the extent practicable.

c. Federally listed plants occur or may occur adjacent to and within the maintained ROW associated with these activities. Repair and reconstruction work shall be restricted to mowed, maintained ROWs to the extent practicable in all areas.

   Some plant species are known to occur along roads that are subject to emergency repair. Seasonally appropriate surveys shall be conducted where suitable habitat is present along the following roads for the following species:

   1) I-75, Hillsborough County, Florida Goldenaster (*Chrysopsis floridana).*

   2) US 98, Okaloosa County within Eglin Air Force Base, Florida perforate lichen (*Cladonia perforate).*

   3) US 98, Back Beach Road Bay County, North Glade Conservation easement site. Telephus spurge (*Euphorbia telephoides).*

   Plant surveys shall be performed by personnel having knowledge and experience in identification of rare plants and knowledge of their habitats. If the surveys document the presence of the plant species further coordination with the Fish and Wildlife Service is required.

d. Sand and storm debris cleared from the road shall be deposited as close to the roadway as safely possible.

e. For roadways adjacent to or within public lands with beach and dune habitat, beach quality sand removed from the road shall be stockpiled to the extent practicable as a

source for future dune restoration. It shall be sifted prior to re-use. Contaminated materials shall be disposed of as appropriate.

f. Staging/storage areas shall be identified for road repair activities and located outside of existing/pre-storm beach and dune habitat, and undeveloped public lands. Areas with paved, graveled, or other highly disturbed surfaces are preferred for staging areas.

g. Parking areas shall be identified for road repair crews and located outside of existing/pre-storm beach and dune habitat, and undeveloped public lands. Areas with paved, graveled, or other highly disturbed surfaces are preferred for parking areas.

h. Storm-caused road debris (gravel, asphalt, old base) shall be removed to the greatest extent practicable and as quickly as possible. Removal methods shall minimize additional disturbance to the environment.

i. No soil materials shall be used in reconstruction of the road and its subgrade that are incompatible with, and may result in permanent discoloration of, white beach sand unless approved by the Service and FWC. Examples of unsuitable materials are red and yellow clays.

j. No fill material shall be deposited into low lying washover areas, sandflats or mudflats outside of the road corridor. No fill material shall be deposited on or removed from existing and pre-storm beach and dune habitat. The post-storm road elevation shall not exceed its pre-storm value. Fill material and hay bales shall be clean of noxious weeds. No fertilizer or lime shall be applied. No hay bales shall be used in dune habitats.

k. Materials used for road shoulder stabilization shall be compatible with the coastal environment and minimize the risk of habitat damage from future storms. Preferred options include white Bahama rock, native vegetation, pervious surface pavers, and additional paved shoulder. The use of gray aggregate rock shall be avoided and minimized in coastal habitat as Florida Department of Transportation, the Service and the FWC work toward improving available options.

l. Non-vegetative road shoulder stabilization material shall be placed no further than three (3) feet from the edge of paved shoulder.

m. Planting of road shoulders shall utilize only native coastal vegetation. Turf grass and/or sod shall not be used.

n. Low lying washover areas, sandflats, or mudflats, or inlets shall not be planted with any vegetation.

o. Native vegetation shall be used as needed to stabilize adjacent slope and limit erosion. Information on appropriate coastal plants and planting specifications are available from the Service.

p. All road repair related trash shall be disposed of properly in predator-proof trash receptacles.

q. No road associated debris shall be buried in place.

r. Any parking lot or roadway lights that need to be replaced and are within line of sight of beach or adjacent to or within dune habitats shall install wildlife lighting See: (http://myfwc.com/seaturtle/WildlifeLighting/index.htm), that reduces the direct and ambient lighting of beach and dune habitats within and adjacent to the roadway.

2.2 Upland Areas

Bald eagle: Active bald eagle territories may be located near the proposed project. The Service has removed (delisted) the bald eagle from the list of threatened and endangered species because the bald eagle population has recovered in the lower 48 states, threats to the species have been reduced or eliminated, and reproductive success has significantly increased. However, the bald eagle will continue to be managed and protected by the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act.

a. For projects that are farther than 660 feet from a bald eagles nest, no additional analysis or conservation measures are required.

b. For projects that occur within 660 feet of a nest refer to the discussion below:

   Bald eagles are unlikely to be disturbed by routine use of roads, homes, and other facilities where such use predates the eagle's successful nesting activity in a given area. Therefore, in most cases, repair and replacement of preexisting facilities may take place provided that the activities after repair and replacement proceed with the same intensity prior to the disaster. However, the actual repair and construction activities may result in short term disturbance to the eagles. Therefore, nesting season considerations as discussed below will be implemented:

   For all projects, exterior construction activities and site work within 660 feet of an eagles nest will be outside of the nesting season (October 1-May 15). Site work is defined as all infrastructure work, including roads, sewer and power lines, fill, and excavation work. Heavy construction activity during the nesting season will be avoided. In the event that site work and exterior building construction is unavoidable during the nesting season the bald eagle monitoring guidelines should be initiated. The monitoring guidelines are posted on the Service's website at http://www.fws.gov/northflorida/BaldEagles/bald-eagles.htm.

   For activities that involve projects other than repair and replacement of pre existing facilities (e.g. improvement projects and temporary housing placement) the buffer zones as identified on page 12 of National Bald Eagle Management Guidelines will be provided

around eagle nests. The National Guidelines are posted on the Service's web site at http://www.fws.gov/northflorida/BaldEagles/bald-eagles.htm.

Lost, inactive, or abandoned nests: Where nests are blown from trees during storms or otherwise destroyed, continue to protect the nest site in the absence of the nest for up to three complete breeding seasons. Eagles may rebuild the nest and reoccupy the site. In the case of inactive (unused) nests, but which remain intact or partially intact: the nest should be protected through five (5) complete breeding seasons, after which time the National Guidelines no longer apply.

Florida scrub-jay: Disaster response activities shall avoid working in or staging equipment in xeric oak scrub habitat. The Service or the FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

Audubon's crested caracara: Disaster response activities shall avoid working in or staging equipment within 1,000 feet of a known caracara nest. The Service or FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

Eastern indigo snake: The primary habitat of the indigo snake is xeric upland communities (especially the longleaf pine-turkey oak-wiregrass association) interspersed with wetland habitats such as drainageways, river swamps and cypress ponds.

a. An eastern indigo snake protection/education plan provided to FEMA by the Service (Attachment A) shall be distributed to all construction personnel. The educational materials for the plan will consist of a combination of posters and pamphlets. Informational signs should be posted throughout the construction site and along any proposed access road to contain the following information:

    1) a description of the eastern indigo snake, its habits, and protection under Federal law;
    2) instructions not to injure, harm, harass or kill this species;
    3) if a snake is observed, directions to cease clearing activities and allow the eastern indigo snake sufficient time to move away from the site on its own before resuming clearing;
    4) telephone numbers of pertinent agencies to be contacted if a dead eastern indigo snake is encountered. The dead specimen should be thoroughly soaked in water and then frozen.

b. If not currently authorized through an Incidental Take Statement in association with a Biological Opinion, only individuals who have been either authorized by a section 10(a)(1)(A) permit issued by the Service, or by the State of Florida through the Florida Fish and Wildlife Conservation Commission (FWC) for such activities, are permitted to come in contact with an eastern indigo snake.

c. An eastern indigo snake monitoring report shall be submitted to the appropriate Florida Field Office within 60 days of the conclusion of clearing phases. The report shall be submitted whether or not eastern indigo snakes are observed. The report should contain the following information:

1) any sightings of eastern indigo snakes and
2) other obligations required by the FWC, as stipulated in the permit.

Sand skink and Bluetailed mole skink: Disaster response activities shall avoid working in or staging equipment in areas of scrub habitat and other sparsely vegetated lands that contain less the 50 percent vegetative cover such as sandy areas of the high pine community, active and abandoned citrus groves, over-grazed pastures, and other disturbed areas. The Service or FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

Plants: Federally listed plants occur or may occur adjacent to and within the maintained ROW associated with these activities. Repair and reconstruction work shall be restricted to mowed, maintained ROWs to the extent practicable in all areas.

Some plant species are known to occur along roads that are subject to emergency repair. Seasonally appropriate surveys shall be conducted where suitable habitat is present along the following roads for the following species:

a. I-75, Marion County, Garret's mint (*Dicerandra cornutissima).*

b. I-75, Hillsborough County, Florida goldenaster (*Chrysopsis floridana).*

c. SR 40, Marion County, Florida bonamia (*Bonamia grandiflora).*

d. US 27, Polk County, Florida bonamia *(Bonamia grandiflora).*

e. SR 71, Gulf and Calhoun counties from SR 22 to SR 20, Gentian pinkroot (*Spigelia gentianoides).*

f. SR 271, Jackson County from US 90 to the Alabama State line, Gentian pinkroot (*Spigelia gentianoides).*

g. US 98, Back Beach Road, Bay County, North Glades Conservation easement site, Telephus spurge (*Euphorbia telephoides).*

Plant surveys shall be performed by personnel having knowledge and experience in identification of rare plants and knowledge of their habitats. If the surveys document the presence of the plant species further coordination with the Fish and Wildlife Service shall be required.

2.3 Rocklands

Key Largo wood rat, Key Largo cotton mouse, Schaus swallowtail butterfly, Key deer, and Stock Island tree snail: Within the Florida Keys, disaster response activities shall avoid working in or staging equipment in areas of hardwood hammock or other undisturbed areas containing native vegetation (see specific areas below for each species). The Service or FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

Key Largo wood rat: Old Rhodes Key, Key Largo, and Plantation Key.

Key Largo cotton mouse: All of Key Largo south to Tavenier.

Schaus swallowtail butterfly: Sands Key, Elliott Key, Old Rhodes Key, Key Largo, Plantation Key, Windley Key, Upper and Lower Matecumbe Keys, and Craig Key.

Stock Island tree snail: Raccoon Key, Stock Island, Key West, Dredgers Key, and Flemming Key.

Key Deer: Bahia Honda Key, No-Name Key, Big Pine Key, Little Torch Key, Middle Torch Key, Big Torch Key, Ramrod Key, Summerland Key, Cudjoe Key, Sugarloaf Key, and Saddlebunch Keys .

2.4 Wetlands or In-water areas (marine, estuarine, riverine aquatic and shoreline habitats)

Okaloosa darter: The Okaloosa darter is known only from six small basins that drain into Boggy Bayou and Rocky Bayou of Choctawhatchee Bay: Toms, Turkey, Mill, Swift, East Turkey, and Rocky creeks, Okaloosa and Walton counties, Florida.

In these locations all culverts to be replaced shall have appropriately-sized bottomless structures.

Gulf sturgeon: Gulf sturgeon are found during the warmer months in the Yellow, Blackwater, Choctawhatchee, Apalachicola, Ochlocknee, and Suwannee rivers and the colder months in the central and eastern Gulf of Mexico waters. In these locations and seasons the following measures shall be implemented:

a. Pictures and/or diagrams of Gulf sturgeon shall be posted at each worksite.

b. All vessels and vehicles shall be operated according to navigational rules and prudent seamanship. No operation that may harass or threaten any marine life shall be allowed.

c. If a Gulf sturgeon is spotted within 100 feet of a vessel or work crew, the vessel and crew shall slow down or stop (as situation merits) until the animal leaves the areas of its own volition. Under NO circumstance shall any action be undertaken to cause a change in the animal's behavior.

d. Supervisory personnel shall be notified and he/she shall ensure that items b. and c. are performed.

Manatee: FEMA shall process the project activity through the most recent version of *The Corps of Engineers, Jacksonville District, and the state of Florida Effect Determination Key for the Manatee in Florida* (July 2005), located at http://www.saj.usace.army.mil/regulatory/what/species/manatee.htm., to determine when to implement the July 2005 Standard Manatee Conditions for In-Water Work. Funded projects with in-water activities occurring within Important Manatee Areas, or adversely affecting submerged or emergent aquatic vegetation or mangrove, will require further consultation to determine what additional special measures to include as conditions of the activities. Watercraft involved in any such activity must adhere to all Federal, State, and local speed zone or other regulations intended to protect manatees and their habitat.

Key Deer: Within the Florida Keys (Bahia Honda Key, No-Name Key, Big Pine Key, Little Torch Key, Middle Torch, Key, Big Torch Key, Ramrod Key, Summerland Key, Cudjoe Key, Sugarloaf Key, and Saddlebunch Keys) disaster response activities shall avoid working in or staging equipment in areas of buttonwood wetlands, mangrove wetlands, and freshwater wetlands or other undisturbed areas containing native vegetation. The Service or FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

Wood stork: Wood stork nest colonially in a variety of inundated forested wetlands, including cypress strands and domes, mixed hardwood swamps, sloughs, and mangroves. The birds forage mainly in shallow water in freshwater marshes, swamps, lagoons, ponds, tidal creeks, flooded pastures and ditches, where they are attracted to falling water levels that concentrate food sources (mainly fish). The following conditions shall be incorporated into the project.

a. No work shall be conducted within 2,500 feet of a nesting colony site unless approval is provided by the Service.

b. The work shall not cause negative hydrologic changes to the wetland system supporting a wood stork nesting colony.

c. The work shall not result in wetland loss within a nesting colony.

d. The work shall not cause negative impacts to nesting habitat and nearby vegetative cover or vegetation used for nest building. No work shall occur within 2,500 feet of a nesting colony.

e. Where work results in habitat loss, mitigation shall include restoration or creation ratio of 1:1 like for like wetlands within 2,500 of the nesting colony site.

f. No work shall be conducted during the early segment of nesting season from March 1 to May 30 and all restoration or creation activities shall be concluded prior to the next nesting season.

Fat three ridge, Chiploa slabshell, Purple bankclimber, Shinyrayed pocketbook, Gulf moccaisinshell, Ochlockonee moccasinshell, and Oval pigtoe mussels. Mussels are found in the Econfina Creek and the Apalachicola-Chattahoochee-Flint, Ochlocknee, and Santa Fe River drainages. In these locations the following provisions shall be implemented:

a. In-stream work shall be kept to a minimum during the removal of existing roadway/bridge structures and approaches.

b. In-steam work shall obtain a State of Florida Water Quality Certification.

c. Clearing shall be kept to the minimum level necessary for project completion.

d. Temporary erosion control devices shall be installed before any work is performed.

e. Permanent erosion control structures shall be installed before major grading activities are begun.

f. Fill slopes shall be graded to completion; cleared and grubbed areas shall be covered with erosion control mats and revegetated with fast growing native grasses. All disturbed soil, excavation spoil, and stockpiled materials shall be mulched daily or covered with erosion control mats. Stockpiled materials shall be placed to prevent rain runoff from washing materials into the waterway.

g. Surface runoff from disturbed areas shall be diverted into non-erodible areas. Runoff from undisturbed areas shall be prevented from flowing across disturbed areas through the use of permanent and/or temporary pipes, slope drains, or other approved methods. Silt laden water shall be filtered before returning to the waterway.

h. Erosion control structures shall be checked on a daily basis. When any structure is one-third filled, it shall be cleaned immediately. Removed materials shall be placed to prevent them from entering the waterway.

i. The waterway shall be monitored before, during, and after construction to ensure turbidity levels do not increase. If an increase is observed, construction shall cease until the source can be determined and shall not resume until the problem has been corrected. The erosion control plan shall be corrected should any circumstances cause or allow pollutants from the worksite to enter the waterway or damage the waterway's habitat.

j. No bridge structures or fill shall be placed in a stream or within 25 feet of a stream bank. Work activities shall be conducted from a stable stream bank or reinforced platform that does not cause degradation or destabilization of the stream banks.

k. All culverts to be replaced shall have appropriately-sized bottomless structures.

l. A protective platform shall be used to prevent construction debris from entering the waterway during the construction of a new bridge and the demolition of an existing bridge. Platforms shall utilize cap bottom forms with side forms around the perimeter, stay-in-place pre-stressed deck panels, and overhand forms with 12-inch side forms along the outer edge. Provisions shall be made to collect any seepage or drips from deck concrete placement and any grinding or grooving operations. Reinforced plastic sheeting or other approved material may be necessary to prevent seepage and drips. If material cutting is used, the platform shall be waterproof to prevent water and seepage from entering the waterway.

m. The existing bridge shall be removed to the level of the streambed or waterway bottom and disposed of in an approved off-site disposal area. The deck shall be cut into sections and lifted out of the stream through the use of a large crane. Wooden pilings shall be 'pinched' off at the substrate level by a pincher at the end of an arm.

n. In-stream work shall be contractually prohibited during the mussel breeding season (April 15-June 15); other activities that would not lead to increased erosion, sedimentation, or turbidity could be completed. Soil disturbance activities shall be completed between the time period of June 16 to April 14.

o. Borrow sites or stockpiling fill dirt within 200 feet of waterways or elsewhere where runoff from the site would increase sedimentation shall be prohibited.

p. Equipment staging areas and equipment maintenance areas (particularly for oil changes) shall be located at least 200 feet from waterways to minimize the potential for wash water, petroleum products, or other contaminants from construction equipment entering the waterway.

Plants: Federally listed plants occur or may occur adjacent to and within the maintained ROW associated with these activities. Repair and reconstruction work shall be restricted to mowed, maintained ROWs to the extent practicable in all areas.

Some plant species are known to occur along roads that are subject to emergency repair. Seasonally appropriate surveys shall be conducted where suitable habitat is present along the following roads for the following species:

a. SR 40, Marion County, Florida bonamia (*Bonamia grandiflora).*

b. US 27, Polk County, Florida bonamia (*Bonamia grandiflora).*

c. R 65, Liberty County between the Franklin County line and SR 20. Harper's beauty *(Harperocallis flava).*

Plant surveys shall be performed by personnel having knowledge and experience in identification of rare plants and knowledge of their habitats. If the surveys document the presence of the plant species further coordination with the Service is required.

3.0 DEBRIS REMOVAL and CLEAN UP

3.1 Coastal Areas

3.1.1 Developed Coastal Peninsula Florida (Urban beaches with residential and commercial structures) (Projects within or contiguous to the beachfront and dunes in Nassau, Duval, St. Johns, Flagler, Volusia, Brevard, Indian River, St. Lucie, Martin, Palm Beach, Broward, Dade, Monroe, Collier, Lee, Sarasota, Manatee, and Pinellas counties, Atlantic Ocean and south Gulf of Mexico)

Sea Turtles: The majority of sea turtle nesting surveys programs in this area do not mark individual nests because of the large number of nests. Thus, it is not feasible to implement avoidance and minimization measures to protect the nests.

a. During the early and late periods of the sea turtle nesting season (March 1 to April 30 and November 1 to November 30) but, outside the peak period, surveys for early and late nesting sea turtles must be conducted. If nests are reported in the area of construction, the nest must be marked and avoided with a 10 foot buffer.

b. During the sea turtle nesting season (May 1 through October 31) work shall be allowed except as noted provided the following measures are implemented.

    1) Only those clean up and debris removal activities that can be accomplished from developed areas landward of the beach shall be conducted.

    2) All activity shall be confined to daylight hours and shall not occur prior to 9:00 a.m. following completion of daily sea turtle surveys.

Sea turtles and Beach mice: Activities may be conducted provided the following measures are implemented.

a. Debris collection/pick up sites shall be located off the beach and outside of dune habitat.

b. Demolition and debris removal within dune habitats shall be accomplished as much as possible by hand. Debris shall be placed into piles rather than land clearing and pushing debris into piles.

c. Staging/storage areas for clean-up equipment and debris shall be located off the beach and outside of dune habitat.

d. Clean up and debris removal related ingress and egress corridors should be designated where clean-up traffic and debris collection would minimally impact beach or dune habitat. Care should be taken to restrict equipment/ vehicles to roadways and roadbeds and off of vegetated areas or areas of buried vegetation.

e. The minimal size and amount of equipment to maneuver in dune habitats (i.e., tracked bobcats with grapples and clamps) shall be used. Minimize impact footprint of equipment by working from one location with a grappling device. Equipment shall be operated from existing hard top or impacted sites to remove debris within habitat.

f. Parking areas for clean-up crews shall be designated and located off the beach and outside of dune habitat.

g. No on-site burial of debris on the beach or within dune habitats shall be conducted. Debris shall be quickly moved to the roadway or designated collection sites for pick up.

Piping plovers: Work may be completed during any time period provided the following measures are implemented.

a. No debris shall be deposited into low lying washover areas, sandflats or mudflats.

b. Storm-related debris (gravel, asphalt, old base) shall be removed to the greatest extent practicable. Removal methods shall minimize additional disturbance to the environment.

c. Natural wrack shall remain on the beaches when possible.

d. Clean-up vehicles shall avoid driving through the natural wrack line on the beach.

Nesting shorebirds
See requirements for nesting shorebird surveys under "Other Requirements" section.

3.1.2 Developed Coastal Panhandle Florida (Urban beaches with residential and commercial) (Projects within or contiguous to beachfront and dunes in Escambia, Santa Rosa, Okaloosa, Walton, Bay, Gulf, and Franklin counties, Gulf of Mexico)

Sea turtles: Sea turtle nesting surveys in these counties mark all the nests. Thus, it is feasible to implement avoidance and minimization measures to protect the nests. During the sea turtle nesting season (May 1 and October 31) work shall be allowed provided the following measures are implemented.

a. Equipment used for debris removal shall remain at least ten (10) feet from all marked sea turtle nests. Debris within ten feet of a marked nest may be removed by hand.

b. All activity shall be confined to daylight hours and shall not occur prior to 9:00 a.m. following the completion of all necessary sea turtle surveys and conservation activities.

Sea turtles and Beach mice: Activities may be conducted provided the following measures are implemented.

a. Debris collection/pick up sites shall be located off the beach and outside of dune habitat.

b. Demolition and debris removal within dune habitats shall be accomplished as much as possible by hand. Debris shall be placed into piles rather than land clearing and pushing debris into piles.

c. Staging/storage areas for clean-up equipment and debris and parking areas for clean-up crews shall be located off the beach and outside of dune habitat.

d. Clean up and debris removal related ingress and egress corridors shall be designated and roped off where clean-up traffic and debris collection would minimally impact beach or dune habitat. Care shall be taken to restrict equipment/vehicles to roadways and roadbeds and off of vegetated areas or areas of buried vegetation. Creating one-way traffic corridors reduces the need for equipment turn a rounds.

e. The minimal size and amount of equipment to maneuver in dune habitats (i.e., tracked bobcats with grapples and clamps) shall be used. The impact footprint should be minimized by workin by working from one location with a grappling device. Equipment shall be operated from existing hard top or impacted sites to remove debris within habitat.

f. No on-site burial of debris on the beach or within dune habitats shall be conducted. Debris shall be quickly moved to the roadway or designated collection sites for pick up.

Piping plovers: Work may be completed during any time period provided the following measures are implemented.

a. No debris shall be deposited into low lying washover areas, sandflats or mudflats.

b. Storm-related debris (gravel, asphalt, old base) shall be removed to the greatest extent practicable. Removal methods shall minimize additional disturbance to the environment.

c. Natural wrack shall remain on the beaches when possible.

d. Clean-up vehicles shall avoid driving through the natural wrack line on the beach.

Nesting shorebirds
See requirements for nesting shorebird surveys under "Other Requirements" section.

3.1.3 Undeveloped or natural Coastal Peninsula Florida (Federal, Sate, County Parks, military lands, Refuges, Designated Conservation Areas, etc.) (Projects within or contiguous to beachfront and dunes in Nassau, Duval, St. Johns, Flagler, Volusia, Brevard, Indian

River, St. Lucie, Martin, Palm Beach, Broward, Dade, Monroe, Collier, Lee, Sarasota, Manatee, and Pinellas counties, Atlantic Ocean and southern Gulf of Mexico)

Sea turtles: The majority of sea turtle nesting surveys programs in this area do not mark individual nests because of the large number of nests. Thus, it is not feasible to implement avoidance and minimization measures to protect the nests.

a. During the early and late periods of the sea turtle nesting season (March 1 to April 30 and November 1 to November 30), but outside the peak period, surveys for early and late nesting sea turtles must be conducted. If nests are reported in the area of construction, the nest must be marked and avoided with a ten (10) foot buffer on all sides.

b. During the sea turtle nesting season (May 1 through October 31) work shall be allowed, except as noted, provided the following measures are implemented.

    1) Only those clean up and debris removal activities that can be accomplished from developed areas landward of the beach and dunes shall be conducted.

    2) All activity shall be confined to daylight hours and shall not occur prior to 9:00 a.m. following completion of daily sea turtle surveys.

Sea turtles and Beach mice: Activities may be conducted provided the following measures are implemented.

a. Demolition and debris removal from beach and dune habitats shall be conducted from areas located landward of those habitats. Any work occurring on beaches and dunes should be performed by hand when practicable. Debris shall be placed into piles rather than land clearing and pushing debris into piles.

b. Staging/storage areas for clean-up equipment and debris and parking for work crews shall be located off the beach and outside of dune habitat.

c. Equipment/vehicles shall be restricted to roadways and roadbeds and off of vegetated areas or areas of storm-buried vegetation. Ingress and egress corridors for equipment and vehicles shall be designated and roped off so that clean-up traffic and debris collection would avoid or minimally impact beach or dune habitat. Creating one-way traffic corridors alleviates the need for equipment turn a rounds.

d. The minimal size and amount of equipment to maneuver in dune habitats (i.e., tracked bobcats with grapples and clamps) shall be used. The impact footprint should be minimized by working from one location with a grappling device. Equipment shall be operated from existing hard top or impacted sites to remove debris within habitat.

e. No on-site burial of debris on the beach or dunes shall be conducted. Debris shall be quickly moved to the roadway or designated collection sites for pick up.

Piping plovers: Work may be completed during any time period provided the following measures are implemented.

a. No debris shall be deposited into low lying washover areas, sandflats or mudflats.

b. Storm-related debris (gravel, asphalt, old base) shall be removed to the greatest extent practicable. Removal methods shall minimize additional disturbance to the environment.

c. Natural wrack shall remain on the beaches when possible.

d. Clean-up vehicles shall avoid driving through the natural wrack line on the beach.

Nesting shorebirds
See requirements for nesting shorebird surveys under "Other Requirements" section.

3.1.4 Undeveloped or natural Coastal Panhandle Florida (Federal, Sate, County Parks, military lands, Refuges, Designated Conservation Areas, etc.) (Projects within or contiguous to beachfront and dunes in Escambia, Santa Rosa, Okaloosa, Walton, Bay, Gulf, and Franklin counties, Gulf of Mexico)

Sea turtles: Sea turtle nesting surveys in these counties mark all the nests. Thus, it is feasible to implement avoidance and minimization measures to protect the nests. During the sea turtle nesting season (May 1 through October 31) work shall be allowed provided the following measures are implemented.

a. Equipment used for debris removal shall remain at least ten (10) feet from all marked sea turtle nests. Debris within ten feet of a marked nest shall be removed by hand.

b. All activity shall be confined to daylight hours and shall not occur prior to 9:00 a.m. following the completion of all necessary sea turtle surveys and conservation activities.

Sea turtles and Beach mice: Activities may be conducted provided the following measures are implemented.

a. Ingress and egress corridors shall be designated and roped off so that clean-up traffic and debris collection would minimally impact beach or dune habitat. Creating one-way traffic corridors alleviates the need for equipment turn a rounds.

b. Demolition and debris removal on the beach or within dune habitats shall be conducted as much as possible by hand. To the extent practicable, debris shall be placed in piles using hand equipment rather than use of heavy equipment.

c. The minimal size and amount of equipment to maneuver in dune habitats (i.e., tracked bobcats with grapples and clamps) shall be used. Impact footprint of equipment shall be

minimized by working from one location with a grappling device. Where possible site and use equipment from existing hardtop or impacted sites to remove debris within habitat.

d. Debris collection/pick up sites shall be located off the beach and outside of dune habitat.

e. Staging/storage areas for clean-up equipment and debris and parking for work crews shall be located off the beach and outside of dune habitat.

f. No on-site burial of debris on the beach and dunes shall be conducted. Debris shall be quickly moved to the roadway or designated collection sites for pick up.

g. Where habitat impact is unavoidable, restoration shall be completed as soon as possible following clean up activities. Locally common, native dune vegetation shall be used for vegetative plantings.

Piping plovers: Work may be completed during any time period provided the following measures are implemented.

a. No debris shall be deposited into low lying washover areas, sandflats or mudflats.

b. Storm-related debris (gravel, asphalt, old base) shall be removed to the greatest extent practicable. Removal methods shall minimize additional disturbance to the environment.

c. Natural wrack shall remain on the beaches when possible.

d. Clean-up vehicles shall avoid driving through the natural wrack line on the beach.

Nesting shorebirds
See requirements for nesting shorebird surveys under "Other Requirements" section.

3.2 Upland Areas (Terrestrial, Forested)

Bald eagle: Active bald eagle territories may be located near the proposed project. The Service has removed (delisted) the bald eagle from the list of threatened and endangered species because the bald eagle population has recovered in the lower 48 states, threats to the species have been reduced or eliminated, and reproductive success has significantly increased. However, the bald eagle will continue to be managed and protected by the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act.

a. For projects that are farther than 660 feet from a bald eagles nest, no additional analysis or conservation measures are required.

b. For projects that occur within 660 feet of a nest refer to the discussion below:

Bald eagles are unlikely to be disturbed by routine use of roads, homes, and other facilities where such use predates the eagle's successful nesting activity in a given area. Therefore, in most cases, repair and replacement of preexisting facilities may take place provided that the activities after repair and replacement proceed with the same intensity prior to the disaster. However, the actual repair and construction activities may result in short term disturbance to the eagles. Therefore, nesting season considerations as discussed below will be implemented:

For all projects, outside construction activities and site work within 660 feet of an eagles nest shall take place outside of the nesting season (October 1-May 15). Site work is defined as all infrastructure work, including roads, sewer and power lines, fill, and excavation work. Heavy construction activity during the nesting season shall be avoided. In the event that site work and exterior building construction is unavoidable during the nesting season the bald eagle monitoring guidelines shall be initiated. The monitoring guidelines are posted on the Service's website at http://www.fws.gov/northflorida/BaldEagles/bald-eagles.htm.

For activities that involve projects other than repair and replacement of pre existing facilities (e.g. improvement projects and temporary housing placement) the buffer zones as identified on page 12 of National Bald Eagle Management Guidelines will be provided around eagle nests. The National Guidelines are posted on the Service's web site at http://www.fws.gov/northflorida/BaldEagles/bald-eagles.htm.

Lost, inactive, or abandoned nests: Where nests are blown from trees during storms or otherwise destroyed, continue to protect the nest site in the absence of the nest for up to three complete breeding seasons. Eagles may rebuild the nest and reoccupy the site. In the case of inactive (unused) nests, but which remain intact or partially intact: the nest should be protected through five (5) complete breeding seasons, after which time the National Guidelines no longer apply.

Red-cockaded woodpecker: Surveys for red-cockaded woodpeckers (RCW) shall be conducted within the area to determine if suitable RCW nesting or foraging habitat may be affected. Suitable nesting habitat is defined as pine, pine/hardwood, and hardwood/pine stands that contain pines 60 years in age or older. Suitable foraging habitat is defined as a pine or pine/hardwood stand of forest, woodland, or savannah in which 50 percent or more of the dominant trees are pines and the dominant pine trees are generally 30 years in age or older.

a. If no suitable nesting or foraging habitat is present within the project impact area, further assessment is unnecessary and structure repair or restoration may be completed.

b. If no suitable nesting habitat is present within the project impact area, but suitable foraging habitat is present and may be impacted, potential use of this foraging habitat by groups outside the project boundaries must be determined. This is done by identifying

any potential nesting habitat within 0.5 mile of the suitable foraging habitat that would be impacted by the project. Any potential nesting habitat is then surveyed for cavity trees. If no active clusters are found, further assessment is unnecessary and structure repair or restoration may be completed.

c. If one or more active clusters are found, a foraging habitat analysis shall be conducted to determine whether sufficient amounts of foraging habitat will remain for each group post-project. More details on the red cockaded woodpecker survey protocol are available in Appendix 4 of the recovery plan for this species. See: http://ecos.fws.gov/docs/recovery_plan/030320_2.pdf

Eastern indigo snake: The primary habitat of the indigo snake is xeric upland communities (especially the longleaf pine-turkey oak-wiregrass association) interspersed with wetland habitats such as drainageways, river swamps and cypress ponds.

a. An eastern indigo snake protection/education plan provided to FEMA by the Service (Attachment A) shall be distributed to all construction personnel. The educational materials for the plan will consist of a combination of posters and pamphlets. Informational signs should be posted throughout the construction site and along any proposed access road to contain the following information:

    1) a description of the eastern indigo snake, its habits, and protection under Federal law;
    2) instructions not to injure, harm, harass or kill this species;
    3) if a snake is observed, directions to cease clearing activities and allow the eastern indigo snake sufficient time to move away from the site on its own before resuming clearing;
    4) telephone numbers of pertinent agencies to be contacted if a dead eastern indigo snake is encountered. The dead specimen should be thoroughly soaked in water and then frozen.

b. If not currently authorized through an Incidental Take Statement in association with a Biological Opinion, only individuals who have been either authorized by a section 10(a)(1)(A) permit issued by the Service, or by the State of Florida through the Florida Fish and Wildlife Conservation Commission (FWC) for such activities, are permitted to come in contact with an eastern indigo snake.

c. An eastern indigo snake monitoring report shall be submitted to the appropriate Florida Field Office within 60 days of the conclusion of clearing phases. The report shall be submitted whether or not eastern indigo snakes are observed. The report should contain the following information:

    1) any sightings of eastern indigo snakes and
    2) other obligations required by the FWC, as stipulated in the permit.

Florida scrub-jay: Disaster response activities shall avoid working in or staging equipment in xeric oak scrub habitat. The Service or the FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

Sand skink and Bluetailed mole skink: Disaster response activities shall avoid working in or staging equipment in areas of scrub habitat and other sparsely vegetated lands that contain less the 50 percent vegetative cover such as sandy areas of the high pine community, active and abandoned citrus groves, over-grazed pastures, and other disturbed areas. The Service or FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

Audubon's crested caracara: Disaster response activities shall avoid working in or staging equipment within 1,000 feet of a known caracara nest. The Service or FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

3.3 Rocklands (Hardwood hammocks)

Key Largo wood rat, Key Largo cotton mouse, Schaus swallowtail butterfly, Key deer, and Stock Island tree snail: Within the Florida Keys, disaster response activities shall avoid working in or staging equipment in areas of hardwood hammock or other undisturbed areas containing native vegetation (see specific areas below for each species). The Service or FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

Key Largo wood rat: Old Rhodes Key, Key Largo, and Plantation Key.

Key Largo cotton mouse: All of Key Largo south to Tavenier.

Schaus swallowtail butterfly: Sands Key, Elliott Key, Old Rhodes Key, Key Largo, Plantation Key, Windley Key, Upper and Lower Matecumbe Keys, and Craig Key.

Stock Island tree snail: Raccoon Key, Stock Island, Key West, Dredgers Key, and Flemming Key.

Key Deer: Bahia Honda Key, No-Name Key, Big Pine Key, Little Torch Key, Middle Torch Key, Big Torch Key, Ramrod Key, Summerland Key, Cudjoe Key, Sugarloaf Key, and Saddlebunch Keys.

3.4 Wetlands or Inwater areas (marine, estuarine, riverine)

Gulf sturgeon: Gulf sturgeon are found during the warmer months in the Yellow, Blackwater, Choctawhatchee, Apalachicola, Ochlocknee, and Suwannee rivers and the colder months in the central and eastern Gulf of Mexico waters. In these locations and seasons the following measures shall be implemented:

a. Pictures and/or diagrams of Gulf sturgeon shall be posted at each worksite.

b. All vessels and vehicles shall be operated according to navigational rules and prudent seamanship. No operation that may harass or threaten any marine life shall be allowed.

c. If a Gulf sturgeon is spotted within 100 feet of a vessel or work crew, the vessel and crew shall slow down or stop (as situation merits) until the animal leaves the areas of its own volition. Under NO circumstance shall any action be undertaken to cause a change in the animal's behavior.

d. Supervisory personnel shall be notified; and he/she shall ensure that items b. and c. (above) are performed.

Manatee: FEMA shall process the activity through the most recent version of *The Corps of Engineers, Jacksonville District, and the state of Florida Effect Determination Key for the Manatee in Florida* (July 2005), located at http://www.saj.usace.army.mil/regulatory/what/species/manatee.htm., to determine when to implement the July 2005 Standard Manatee Conditions for In-Water Work. Funded projects with in-water activities occurring within Important Manatee Areas, or adversely affecting submerged or emergent aquatic vegetation or mangrove, will require further consultation to determine what additional special measures to include as conditions of the activities. Watercraft involved in any such activity must adhere to all Federal, State, and local speed zone or other regulations intended to protect manatees and their habitat.

Key Deer: Within the Florida Keys (Bahia Honda Key, No-Name Key, Big Pine Key, Little Torch Key, Middle Torch, Key, Big Torch Key, Ramrod Key, Summerland Key, Cudjoe Key, Sugarloaf Key, and Saddlebunch Keys) disaster response activities shall avoid working in or staging equipment in areas of buttonwood wetlands, mangrove wetlands, and freshwater wetlands or other undisturbed areas containing native vegetation. The Service or FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

Wood stork: Wood stork nest colonially in a variety of inundated forested wetlands, including cypress strands and domes, mixed hardwood swamps, sloughs, and mangroves. The birds forage mainly in shallow water in freshwater marshes, swamps, lagoons, ponds, tidal creeks, flooded pastures and ditches, where they are attracted to falling water levels that concentrate food sources (mainly fish). The following conditions shall be incorporated into the project.

a. No work shall be conducted within 2,500 feet of a nesting colony site unless approval is provided by the Fish and Wildlife Service.

b. The work shall not cause negative hydrologic changes to the wetland system supporting a wood stork nesting colony site.

c. The work shall not result in wetland loss within a nesting colony site.

d. The work shall not cause negative impacts to nesting habitat and nearby vegetative cover or vegetation used for nest building. No work shall occur within 2,500 feet of a nesting colony.

e. Where work results in habitat loss, mitigation shall include restoration or creation at a ratio of 1:1 like for like wetlands within 2,500 feet of the nesting colony site.

f. No work shall be conducted during the early segment of nesting season from March 1 to May 30 and all restoration or creation activities shall be concluded prior to the next nesting season.

4.0 BEACH AND DUNE RESTORATION other than beach berms

4.1 Coastal Areas

4.1.1 Coastal Peninsula Florida (Projects within or contiguous to beachfront and dunes in Nassau, Duval, St. Johns, Flagler, Volusia, Brevard, Indian River, St. Lucie, Martin, Palm Beach, Broward, Dade, Monroe, Collier, Lee, Sarasota, Manatee, and Pinellas counties, Atlantic Ocean and southern Gulf of Mexico)

Sea turtle: The majority of sea turtle nesting surveys programs in this area do not mark individual nests because of the large number of nests. Thus, it is not feasible to implement avoidance and minimization measures to protect the nests. During the sea turtle nesting season (May 1 through October 31) the following applies.

a. Dune Vegetation. Planting of dune vegetation is authorized to occur during the early and late portions of the sea turtle nesting season (months of April and October) under the following conditions.

1) The use of heavy equipment (trucks) is not authorized seaward of the dune crest or armoring structure. Only lightweight (ATV style) vehicles, with tire pressures of 10 psi or less can operate on the beach.

2) Any vegetation planting shall be installed by hand labor and tools.

3) An irrigation system shall not be installed.

4) Nighttime storage of equipment or materials shall be off the beach (landward of the dune crest, existing seawalls or bulkheads).

5) In the event a sea turtle nest is disturbed or uncovered during planting activity, all work shall cease and the person(s) responsible for sea turtle conservation measures within the project area shall immediately be contacted. If a nest(s) can not be safely avoided during construction, all activity within the affected project area shall be delayed until complete hatching and emergence of the nest.

a. Existing native dune vegetation shall be disturbed only to the minimum extent necessary. Only dune vegetation species native to the County are authorized to be planted.

b. Sand contaminated with gravel needs to be sifted before it can be placed on the dune field. Gravel should not be used to stabilize plowed or cleared areas.

c. No fill material should be deposited on or removed from vegetated areas. In addition, no fill should be mined from overwash areas resulting from the

storm. Fill material must be compatible with existing sand, in accordance with local governments, and clean of noxious weeds. Hay bales should not be used as they attract fire ants and could therefore adversely affect sea turtles, beach mice, and shorebirds.

d. No vehicles or equipment shall be used, parked or stored landward of the primary dune or in vegetated areas.

Florida scrub-jay: Disaster response activities shall avoid obtaining fill from xeric oak scrub habitat. The Service or the FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

4.1.2 Coastal Panhandle Florida (Projects within or contiguous to beachfront and dunes in Escambia, Santa Rosa, Okaloosa, Walton, Bay, Gulf, and Franklin counties, Gulf of Mexico). The following provisions must be implemented:

Beach mice:

a. Any vegetation planting shall be installed by hand labor/tools.

b. An irrigation system shall not be installed.

c. Nighttime storage of equipment or materials shall be off the beach (landward of the dune crest, existing seawalls or bulkheads).

d. Existing native dune vegetation shall be disturbed only to the minimum extent necessary. Only dune vegetation species native to the County are authorized to be planted.

e. Sand contaminated with gravel shall be sifted before it can be placed on the dune field. Gravel should not be used to stabilize plowed or cleared areas.

f. No fill material shall be deposited on or removed from vegetated areas. In addition, no fill should be mined from overwash areas resulting from the storm. Fill material must be compatible with existing sand, in accordance with local governments, and clean of noxious weeds. Hay bales should not be used as they attract fire ants and could therefore adversely affect sea turtles, beach mice, and shorebirds.

g. Staging/ parking/ storage areas shall be located on paved surfaces and outside of vegetated areas.

h. Care shall be taken to restrict all beach and dune restoration work (including equipment and vehicles) to areas without vegetation or storm-buried vegetation.

i. No excavation shall occur within areas with vegetation or storm-buried vegetation.

j. No beach scraping or placement of scraped material shall occur within areas with vegetation or storm-buried vegetation.

Sea turtles: Sea turtle nesting surveys in these counties mark all the nests. Thus, it is feasible to implement avoid and minimization measures to protect the nests. During the sea turtle nesting season (May 1 through October 31) work shall be allowed except as noted provided the following measures are implemented.

a. Dune restoration.

1) *Sea turtle nests.* Any sea turtle nests deposited in an area not requiring relocation for conservation purposes (as determined by the sea turtle permit holder) shall be left in place. The sea turtle permit holder shall install an on-beach marker at any nest site and a secondary marker located at a point as far landward as possible to ensure that future location of the nest will be possible should the on-beach marker be lost. A series of stakes and survey ribbon or string shall be installed to establish an area of three (3) feet radius surrounding the nest. Nest sites shall be inspected daily to ensure nest markers have not been removed.

2) *Fill material.* The fill material shall be obtained from an approved FDEP upland source and be similar in color and grain size distribution (sand grain frequency, mean and median grain size, and sorting coefficient) to the material in the existing coastal system.

a. The fill material shall not contain:

1) greater than five percent, by weight, silt, clay, or colloids passing the #230 sieve; greater than five percent, by weight, fine gravel retained on the #4 sieve;
2) coarse gravel, cobbles, or material retained on the 3/4 inch sieve in a percentage or size greater than found on the native beach;
3) construction debris, toxic material or other foreign matter.

b. The fill material shall not result in cementation of the beach.

c. Placement of fill shall not occur within ten (10) feet or in any location seaward of a marked sea turtle nest. Dependant upon the fill volume and slope, distance offset from marked turtle nests may require to be larger to avoid indirect impacts (e.g., fill slumping) to the nest. If the turtle nest cannot be avoided by this distance due to the scope of the project, all work near the nest must be postponed until completion of the sea turtle nesting season (November 1).

d. Heavy equipment on the nesting beach shall be avoided to the maximum extent practicable. If needed, use of heavy equipment on the beach is authorized provided it is taken off the beach by dusk every night and access to the beach is by County/City approved designated beach accesses.

e. All excavations and temporary alteration of beach topography shall be filled or leveled to the natural beach profile prior to dusk each day.

f. Fill shall be placed as landward as practicable to establish or repair dune features. The existing or pre-disaster beach and dune profile to shall be considered when determining the appropriate siting of fill in order to provide reasonable longevity of the project.

3) *Dune Vegetation.* Planting of dune vegetation may be accomplished during the sea turtle nesting season (May 1 through October 31) under the following conditions.

a. All activity shall be confined to daylight hours and shall not occur prior to 9:00 a.m. following the completion of all necessary marine turtle surveys and conservation activities.

b. Lightweight (ATV style) vehicles, with tire pressures of 10 psi. or less can operate on the beach are the preferred transportation method. However, use of equipment on the beach shall be allowed provided it is taken off the beach by 8:00 p.m. every night and County/City approved designated beach accesses are used. All driving on the beach shall be between the high water mark and the Gulf.

c. Any vegetation planting shall be installed by hand labor/tools.

d. An irrigation system shall not be installed.

e. Nighttime storage of equipment or materials shall be off the beach (landward of the dune crest, existing seawalls or bulkheads).

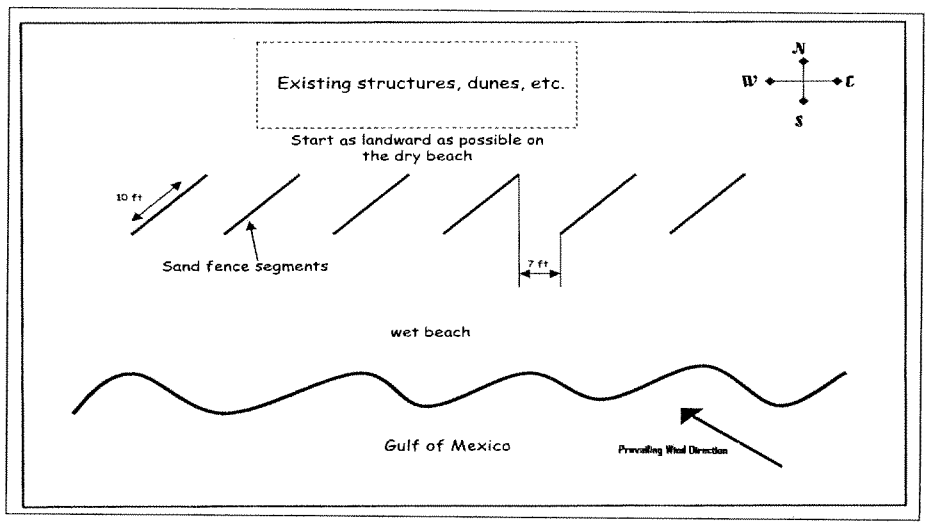
f. In the event a nest is disturbed or uncovered during planting activity, the all work shall cease and the person(s) responsible for sea turtle conservation measures within the project area shall be immediately contacted. If a nest(s) can not be safely avoided during construction, all activity within the affected project area shall be delayed until complete hatching and emergence of the nest.

g. Existing native dune vegetation shall be disturbed only to the minimum extent necessary. Only native salt tolerant plant species are authorized to be installed.

4) *Sand fencing.* Minimal sand fence shall be used. When used, the fence shall be used for restoration of pre-existing dunes and/or to protect existing structures or when adjacent to roadways. Post and rope is preferred for beach visitor access, pedestrian traffic control, and wildlife exclusion zones (i.e., bird wintering areas). If used for dune restoration, the fence shall be placed in a sea turtle compatible design and be made of biodegradable material. The following provisions must also be implemented:

   a. Sand fence installation shall not be installed during the sea turtle nesting season (May 1 through October 31).

   b. Sand fence shall be designed and installed as follows: a maximum of ten (10) foot long spurs of sand fencing spaced at a minimum of seven (7) feet on a diagonal alignment (facing the predominate wind direction) for the shore parallel coverage of the subject property. Only one row of sand fencing shall be installed in sea turtle nesting habitat (schematic below).



   c. Upon site inspection by the Service, FWC or the DEP, if it is determined that the permitted sand fencing adversely impacts sea turtles, or nesting shorebird habitat, or the sand fence has become derelict or non-functional, the applicant shall remove or make modifications to the permitted sand fencing.

5) *Beach scraping.*

a. Only a one time scraping of the beach face shall be conducted.

b. A maximum of one foot in height of accreted sand shall be scraped from the area of the beach between the previous days wrack line and the shoreline.

c. The excavated material shall be placed in a uniform manner landward of the wrack line and seaward of the dune escarpment or the pre-storm dune line.

d. Scraped material shall not be transported laterally along the beach.

e. Only sandy material shall be scraped.

f. No material scraped from the beach shall be moved landward of either the established first line of buildings or the dune escarpment, whichever is more seaward.

g. All activity shall be confined to daylight hours and shall not occur prior to 9:00 a.m. following the completion of all necessary marine turtle surveys and conservation activities.

h. Use of heavy equipment on the beach shall be allowed provided it is taken off the beach by 8:00 p.m. every night and access to the beach is by County/City approved designated beach accesses.

<u>Piping Plovers and nesting shorebirds: With regard to sand fencing, dune fill, fill material, and dune vegetation:</u>

1) A pre-project survey for optimal non-breeding piping plover foraging habitat shall be conducted by personnel having knowledge and experience in identification of piping plover and knowledge of their foraging and roosting habits and requirements.

2) Sand fencing shall <u>only</u> be used for restoration of dune blowouts only to protect existing structures or when adjacent to roadways.

3) No dune fill or fill material shall occur in optimal non-breeding piping plover habitat (washover passes, inlets, lagoons, mud and sand flats) except to protect existing structures and existing primary and emergency roadways.

4) <u>At least</u> 20 percent of the beaches and dune systems shall remain unvegetated, especially low lying flats or inter-dunal areas.

5) <u>No</u> vegetation planting shall occur in or within 50 feet of optimal piping plover habitat such as low lying washover areas, sandflats, mudflats, or inlets.

4.1.3 All Coastal Areas. Nesting shorebirds: With regard to sand fencing, dune fill, fill material, and dune vegetation. See requirements for nesting shorebird surveys under "Other Requirements" section.

5.0 REPAIR OF IN-WATER STRUCTURES OR DRAINAGE STRUCTURES NOT ASSOCIATED WITH ROADS

5.1.1 Coastal Peninsula Florida (Projects within or contiguous to beachfront and dunes in Nassau, Duval, St. Johns, Flagler, Volusia, Brevard, Indian River, St. Lucie, Martin, Palm Beach, Broward, Dade, Monroe, Collier, Lee, Sarasota, Manatee, and Pinellas counties, Atlantic Ocean and southern Gulf of Mexico). The following provisions shall be implemented:

Sea Turtles: The majority of sea turtle nesting surveys programs in this area do not mark individual nests because of the large number of nests. Thus, it is not feasible to implement avoidance and minimization measures to protect the nests. During the sea turtle nesting season (May 1 through October 31) the following applies.

a. Repair or replacement of structures shall occur in the same location or footprint of the previously permitted structure unless it has been determined to be environmentally better to relocate the structure.

b. All activity shall be confined to daylight hours and shall not occur prior to 9:00 a.m. following the completion of all necessary sea turtle surveys and conservation activities. No construction related lights shall be used during nesting season.

c. During the early and late periods of the sea turtle nesting season (March 1 to April 30 and November 1 to November 30) but, outside the peak period, surveys for early and late nesting sea turtles must be conducted. If nests are reported in the area of construction, the nest must be marked and avoided with a ten (10) foot buffer on all sides.

d. During the sea turtle nesting season (May 1 through October 31) work shall be allowed except as noted provided the following measures are implemented.

    1) Repair and restoration work shall only be conducted from a position landward of the dune vegetation with no physical intrusion on to the beach or dunes.

    2) Fencing shall be installed to designate construction areas off the beach and keep all equipment and activities inside these areas.

    3) Staging/parking/storage areas shall be located on paved surfaces and outside of vegetated areas.

    4) Equipment and vehicles shall be restricted to roadways and roadbeds or off of vegetated areas or areas of storm-buried vegetation.

Piping plover: Piping plover are found statewide in Florida during their migration and non-breeding seasons for approximately 10 months of the year. Optimal habitat consists of washover passes, inlets, lagoons, and mud and sand flats.

a. Prior to construction, a survey for optimal non-breeding piping plover habitat (washover passes, inlets, lagoons, and mud and sand flats) shall be conducted in the project area. Optimal piping plover habitat whether existing or newly created by storm events shall be avoided. Piping plover surveys shall be performed by personnel having knowledge and experience in identification of piping plovers and knowledge of their roosting and feeding habits and requirements.

b. Surveys for non-breeding piping plover shall be conducted daily starting two weeks prior to project initiation for the duration of the project between July 15 and May 15, if optimal non-breeding piping plover habitat is documented in the project area. If the project does not begin until after July 15, then surveys must start on July 15 and continue throughout the project construction period until May 15, which ever comes first. Locations of observed piping plovers shall be documented and reported. Surveys shall be conducted by trained personnel and must be conducted in accordance with monitoring guidelines supplied by the Service (except daily versus twice monthly surveys are required). Data sheets must be completed for each daily survey, including negative reports. Locations of observed piping plovers must be recorded using latitude and longitude (GPS points preferred) and reported to the Service following project completion.

c. Piping plover surveys shall be required post-construction if piping plovers were documented pre- or during construction. These surveys shall be conducted daily for two weeks following completion of the entire project. Surveys shall be conducted in accordance with survey guidelines.

d. The results of the daily piping plover survey shall be submitted to the Service with maps documenting the locations of piping plovers (with GPS coordinates or latitude and longitude coordinates) if seen during the survey period.

e. When piping plovers are observed, "Disturbance-Free Zones" shall be posted and roped off at least 300 feet away from the construction areas where potential bird resting and feeding are occurring.

f. No boardwalks shall be reconstructed or repaired that funnel pedestrians to a washover area or other optimal piping plover habitat.

Nesting shorebirds
See requirements for nesting shorebird surveys under "Other Requirements" section.

Roseate tern: Roseate terns are found year round in Miami-Dade and Monroe counties.

a. Prior to initiation of repair and replacement work in Miami-Dade and Monroe counties, project sites shall be surveyed to determine whether suitable nesting habitat for roseate tern is present. Surveys shall be performed by personnel having knowledge and

experience in identification of roseate tern and knowledge of their nesting habits and requirements.

b. All potential roseate tern nesting sites located within 100 feet of project work sites shall be identified and marked and subsequent monitoring of nesting must be performed while construction is underway.

c. During the roseate tern nesting season (May through July) no work shall take place in the vicinity of the four major identified nesting colony sites in South Florida (Pelican Shoal, Vaca Rock, Truman Annex, and the Marathon Governmental Center). For projects located in these areas the applicant may elect to notify the Service in order to determine whether exemption from seasonal work restrictions is allowable.

d. In connection with item b. above, all potential roseate tern nesting sites located within 100 feet of project work sites shall be identified and marked. Subsequent surveys for presence of nesting shall occur following initiation of construction is and shall be performed at least weekly during the construction period. If roseate tern nesting activity is observed, then the nesting location shall be marked and surveyed daily. Results of nesting success/failure shall be documented and provided to the Service.

e. When the repair and replacement work is performed outside of the roseate tern nesting season no work shall take place within100 feet of nesting habitat.

Beach jacquemontia: The beach jacquemontia is known from locations on barrier islands on the southeastern Florida coast from Miami, Dade County to Palm Beach County, specifically: Palm Beach County (eight sites), Broward County (two sites), and Miami-Dade County (two sites).

a. Surveys shall be performed in all sites where beach jacquemontia is known or reported to exist, including areas within 500 feet of those locations. Surveys shall be performed by personnel who have training and/or experience in identification of beach jacquemontia.

b. Surveys shall be performed during the growing season of beach jacquemontia or, at a minimum, when dormant vegetation is present. Plant locations must be recorded using GPS, photographs, and written descriptions of the location and extent of growth. To preclude intentional or unintentional disturbance or harm, the exact location of plants shall not be marked until necessary for construction design, surveys, and implementation. Marking of plant locations shall use non-invasive, temporary techniques such as pin flagging.

c. Construction, including temporary storage of equipment, materials, and supplies; work related walkways, rest/break areas, parking areas; or trash and refuge storage sites may occur from November 1 through February 28 and shall be located a minimum of 25 feet away from any area known to support beach jacquemontia.

d. Unless otherwise directed by the Service, all site markings shall be fully removed following work completion.

e. Following completion of construction, all marked sites shall be re-inspected. Any disturbance to beach jacquemontia shall be photographed and recorded in a narrative report. Damage to beach jacquemontia must be immediately reported to the Service's South Florida Ecological Services Field Office.

Garbers spurge: Garber's spurge is currently known from about 17 populations, including two in Miami-Dade County, and one at Cape Sable (on two Capes) and on 14 islands in the Keys in Monroe County (Bahia Honda Key, Big Torch Key, Boca Grande Key, Crawl Key, Key Largo, Cudjoe Key, Fat Deer Key, Grassy Key, Long Key, Long Point Key, Lower Matecumbe Key, Marquesas Keys, Sugarloaf Key, Summerland Key).

a. Surveys for Garbers spurge shall be performed in all project areas, including adjacent sites located within 500 feet of locations where Garbers spurge is known or reported to exist. Surveys shall be performed by personnel who have training and/or experience in identification of Garbers spurge.

b. Surveys shall be performed during the growing season or, at a minimum, when dormant vegetation is present. Plant locations shall be recorded using GPS, photographs, and written descriptions of the location and extent of growth. To preclude intentional or unintentional disturbance or harm, the exact location of plants shall not be marked until needed for construction related surveys and project design and implementation. Marking of plant locations shall use non-invasive, temporary techniques such as pin flagging.

c. Construction, including temporary storage of equipment, materials, and supplies; work related walkways, rest/break areas, parking areas; or trash and refuge storage sites may occur from November 1 through February 28 and shall be located a minimum of 25 feet away from any area known to support Garbers spurge.

d. Unless otherwise directed by the Service, all site markings shall be fully removed following work completion.

e. Following completion of construction, all marked sites shall be re-inspected. Any disturbance to Garbers spurge shall be photographed and recorded in a narrative report. Any disturbance must be immediately reported to the U.S. Fish and Wildlife Service's South Florida Ecological Services Field Office.

5.1.2 Coastal Panhandle Florida (Projects within or contiguous to beachfront and dunes–Escambia, Santa Rosa, Okaloosa, Walton, Bay, Gulf, and Franklin counties, Gulf of Mexico)

Beach mice:

a. Repair or replacement of structures shall occur in the same location or footprint of the previously permitted structure unless it has been determined to be environmentally better to relocate the structure.

b. Staging/parking/storage areas should be located on paved surfaces and outside of vegetated areas.

c. Equipment and vehicles shall be restricted to roadways and roadbeds or off of vegetated areas or areas of buried vegetation.

d. All activity shall be confined to daylight hours.

e. Fence shall be installed along the project property boundaries to prevent access into adjacent beach mouse habitat. The fence shall allow movement of beach mice and prevent construction work trespass.

f. No excavation of material shall occur outside of the previous footprint of the structure.

Sea turtles: Sea turtle nesting surveys in these counties mark all the nests. Thus, it is feasible to implement avoidance and minimization measures to protect the nests.

a. Repair or replacement of piers.

    1) No work shall be conducted during the sea turtle nesting season (May 1 through October 31).

    2) The pier repair or replacement of structures shall occur in the same location or footprint of the previously permitted structure unless it has been determined to be environmentally better to relocate the structure.

    3) All lights on the pier shall consist of low bollards with seaside shields and 18 watts or less low pressure sodium lamps.

b. All other in-water or drainage structure repair work. The following shall apply for work conducted during the sea turtle nesting season (May 1 through October 31).

    1) Repair work shall be conducted, to the greatest extent practicable, from landward positions with minimal equipment intrusion on to the beach.

    2) Use of equipment on the beach shall be allowed provided it is taken off the beach by 8:00 p.m. every night and County/City approved designated beach accesses are used. All driving on the beach shall be between the high water mark and the Gulf.

3) All activity shall be confined to daylight hours and shall not occur prior to 9:00 a.m. following the completion of all necessary sea turtle surveys and conservation activities.

4) No construction related lights are authorized during nesting season (May 1 through October 31).

5) Repair or replacement of structures must occur in the same location or footprint of the previously permitted structure unless it has been determined to be environmentally better to relocate the structure (i.e. relocate stormwater structures that discharge into the bay or ocean water).

6) Fencing shall be installed to designate construction areas and keep all equipment and activities inside these areas.

7) All excavations and temporary alteration of beach topography shall be filled, covered, or leveled to the natural beach profile prior to 8:00 p.m. each day.

8) No work shall occur within ten (10) feet of a marked sea turtle nest.

9) Relocation of sea turtle nests to accommodate construction is not authorized.

Piping plover: Piping plover are found statewide in Florida during their migration and non-breeding seasons for approximately 10 months of the year. Optimal habitat consists of washover passes, inlets, lagoons, and mud and sand flats.

a. Prior to construction, a survey for optimal non-breeding piping plover habitat shall be conducted in the project area. Optimal piping plover habitat whether existing or newly created by storm events shall be avoided to the maximum extent practicable. Surveys shall be performed by personnel having knowledge and experience in identification of piping plovers and knowledge of their roosting and feeding habits and requirements.

b. Surveys for non-breeding piping plover shall be conducted daily starting two weeks prior to project initiation for the duration of the project between July 15 and May 15, if optimal non-breeding piping plover habitat is documented in the project area. If the project does not begin until after July 15, then surveys must start on July 15 and continue throughout the project construction period until May 15, which ever comes first. Locations of observed piping plovers shall be documented and reported. Surveys shall be conducted by trained personnel and must be conducted in accordance with monitoring guidelines supplied by the Service (except daily versus twice monthly surveys are required). Data sheets must be completed for each daily survey, including negative reports. Locations of observed piping plovers must be recorded using latitude and longitude (GPS points preferred) and reported to the Service following project completion.

c. Piping plover surveys shall be required following construction if piping plovers were documented prior to or during construction. These surveys shall be conducted daily for two weeks following completion of the entire project. Surveys shall be conducted in accordance with survey guidelines.

d. The results of the daily piping plover survey shall be submitted to the Service with maps documenting the locations of piping plovers (with GPS coordinates or latitude and longitude coordinates) if seen during the survey period.

e. When piping plovers are observed "Disturbance-Free Zones" will be posted and roped off at least 300 feet away from the construction areas where potential bird resting and feeding are occurring.

f. No boardwalks shall be reconstructed or repaired that funnel pedestrians to a washover area or other optimal habitat.

Nesting shorebirds
See requirements for nesting shorebird surveys under "Other Requirements" section.

5.2 Upland Areas (Terrestrial, Forested Habitat)

Bald eagle: Active bald eagle territories may be located near the proposed project. The Service has removed (delisted) the bald eagle from the list of threatened and endangered species because the bald eagle population has recovered in the lower 48 states, threats to the species have been reduced or eliminated, and reproductive success has significantly increased. However, the bald eagle will continue to be managed and protected by the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act.

a. For projects that are farther than 660 feet from a bald eagles nest, no additional analysis or conservation measures are required.

b. For projects that occur within 660 feet of a nest refer to the discussion below:

Bald eagles are unlikely to be disturbed by routine use of roads, homes, and other facilities where such use predates the eagle's successful nesting activity in a given area. Therefore, in most cases, repair and replacement of preexisting facilities may take place provided that the activities after repair and replacement proceed with the same intensity prior to the disaster. However, the actual repair and construction activities may result in short term disturbance to the eagles. Therefore, nesting season considerations as discussed below will be implemented:

For all projects, outside construction activities and site work within 660 feet of an eagle nest will be outside of the nesting season (October 1-May 15). Site work is defined as all infrastructure work, including roads, sewer and power lines, fill, and excavation work. Heavy construction activity during the nesting season will be avoided. In the event that

site work and exterior building construction is unavoidable during the nesting season the bald eagle monitoring guidelines should be initiated. The monitoring guidelines are posted on the Service's website at http://www.fws.gov/northflorida/BaldEagles/bald-eagles.htm.

For activities that involve projects other than repair and replacement of pre existing facilities (e.g. improvement projects and temporary housing placement) the buffer zones as identified on page 12 of National Bald Eagle Management Guidelines will be provided around eagle nests. The National Guidelines are posted on the Service's web site at http://www.fws.gov/northflorida/BaldEagles/bald-eagles.htm.

Lost, inactive, or abandoned nests: Where nests are blown from trees during storms or otherwise destroyed, continue to protect the nest site in the absence of the nest for up to three complete breeding seasons. Eagles may rebuild the nest and reoccupy the site. In the case of inactive (unused) nests, but which remain intact or partially intact: the nest should be protected through five (5) complete breeding seasons, after which time the National Guidelines no longer apply.

Red-cockaded woodpecker: Surveys for red-cockaded woodpecker (RCW) shall be conducted within the area to determine if suitable RCW nesting or foraging habitat may be affected. Suitable nesting habitat is defined as pine, pine/hardwood, and hardwood/pine stands that contain pines 60 years in age or older. Suitable foraging habitat is defined as a pine or pine/hardwood stand of forest, woodland, or savannah in which 50 percent or more of the dominant trees are pines and the dominant pine trees are generally 30 years in age or older.

a. If no suitable nesting or foraging habitat is present within the project impact area, further assessment is unnecessary and structure repair or restoration may be completed.

b. If no suitable nesting habitat is present within the project impact area, but suitable foraging habitat is present and may be impacted, potential use of this foraging habitat by groups outside the project boundaries must be determined. This is done by identifying any potential nesting habitat within 0.5 mile of the suitable foraging habitat that would be impacted by the project. Any potential nesting habitat is then surveyed for cavity trees. If no active clusters are found, further assessment is unnecessary and structure repair or restoration may be completed.

c. If one or more active clusters are found, a foraging habitat analysis shall be conducted to determine whether sufficient amounts of foraging habitat will remain for each group post-project. More details on the red cockaded woodpecker survey protocol are available in Appendix 4 of the recovery plan for this species (enclosed).

Florida scrub-jay: Disaster response activities shall avoid working in or staging equipment in xeric oak scrub habitat. The Service or the FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

Audubon's crested caracara: Disaster response activities shall avoid working in or staging equipment within 1,000 feet of a known caracara nest. The Service or FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

Eastern indigo snake: The primary habitat of the indigo snake is xeric upland communities (especially the longleaf pine-turkey oak-wiregrass association) interspersed with wetland habitats such as drainageways, river swamps and cypress ponds.

a. An eastern indigo snake protection/education plan provided to FEMA by the Service (Attachment A) shall be distributed to all construction personnel. The educational materials for the plan will consist of a combination of posters and pamphlets. Informational signs should be posted throughout the construction site and along any proposed access road to contain the following information:

    1) a description of the eastern indigo snake, its habits, and protection under Federal law;
    2) instructions not to injure, harm, harass or kill this species;
    3) if a snake is observed, directions to cease clearing activities and allow the eastern indigo snake sufficient time to move away from the site on its own before resuming clearing;
    4) telephone numbers of pertinent agencies to be contacted if a dead eastern indigo snake is encountered. The dead specimen should be thoroughly soaked in water and then frozen.

b. If not currently authorized through an Incidental Take Statement in association with a Biological Opinion, only individuals who have been either authorized by a section 10(a)(1)(A) permit issued by the Service, or by the State of Florida through the Florida Fish and Wildlife Conservation Commission (FWC) for such activities, are permitted to come in contact with an eastern indigo snake.

c. An eastern indigo snake monitoring report shall be submitted to the appropriate Florida Field Office within 60 days of the conclusion of clearing phases. The report shall be submitted whether or not eastern indigo snakes are observed. The report should contain the following information:

    1) any sightings of eastern indigo snakes and
    2) other obligations required by the FWC, as stipulated in the permit.

Sand skink and Bluetailed mole skink: Disaster response activities shall avoid working in or staging equipment in areas of scrub habitat and other sparsely vegetated lands that contain less the 50 percent vegetative cover such as sandy areas of the high pine community, active and abandoned citrus groves, over-grazed pastures, and other disturbed areas. The Service or FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

5.3 Rocklands

Key Largo wood rat, Key Largo cotton mouse, Schaus swallowtail butterfly, Key deer, and Stock Island tree snail: Within the Florida Keys, disaster response activities shall avoid working in or staging equipment in areas of hardwood hammock or other undisturbed areas containing native vegetation (see specific areas below for each species). The Service or FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

Key Largo wood rat: Old Rhodes Key, Key Largo, and Plantation Key.

Key Largo cotton mouse: All of Key Largo south to Tavenier.

Schaus swallowtail butterfly: Sands Key, Elliott Key, Old Rhodes Key, Key Largo, Plantation Key, Windley Key, Upper and Lower Matecumbe Keys, and Craig Key.

Stock Island tree snail: Raccoon Key, Stock Island, Key West, Dredgers Key, and Flemming Key.

Key Deer: Bahia Honda Key, No-Name Key, Big Pine Key, Little Torch Key, Middle Torch Key, Big Torch Key, Ramrod Key, Summerland Key, Cudjoe Key, Sugarloaf Key, and Saddlebunch Keys.

5.4 Wetlands or Inwater areas (marine, estuarine, riverine)

Okaloosa darter: The Okaloosa darter is known only from six small basins that drain into Boggy Bayou and Rocky Bayou of Choctawhatchee Bay: Toms, Turkey, Mill, Swift, East Turkey, and Rocky creeks, Okaloosa and Walton counties, Florida.

In these locations all culverts to be replaced shall have appropriately-sized bottomless structures.

Gulf sturgeon:

a. Pictures and/or diagrams of Gulf sturgeon shall be posted at each worksite.

b. All vessels and vehicles shall be operated according to navigational rules and prudent seamanship. No operation that may harass or threaten any marine life shall be allowed.

c. If a Gulf sturgeon is spotted within 100 feet of a vessel or work crew, the vessel and crew shall slow down or stop (as situation merits) until the animal leaves the areas of its own volition. Under NO circumstance shall any action be undertaken to cause a change in the animal's behavior.

d. Supervisory personnel shall be notified; and he/she shall ensure that items b. and c. (above) are performed.

Manatee: FEMA shall process the work activity through the most recent version of *The Corps of Engineers, Jacksonville District, and the state of Florida Effect Determination Key for the Manatee in Florida* (July 2005), located at http://www.saj.usace.army.mil/regulatory/what/species/manatee.htm., to determine when to implement the July 2005 Standard Manatee Conditions for In-Water Work. Funded projects with in-water activities occurring within Important Manatee Areas, or adversely affecting submerged or emergent aquatic vegetation or mangrove, will require further consultation to determine what additional special measures to include as conditions of the activities. Watercraft involved in any such activity must adhere to all Federal, State, and local speed zone or other regulations intended to protect manatees and their habitat.

Key Deer: Within the Florida Keys (Bahia Honda Key, No-Name Key, Big Pine Key, Little Torch Key, Middle Torch, Key, Big Torch Key, Ramrod Key, Summerland Key, Cudjoe Key, Sugarloaf Key, and Saddlebunch Keys) disaster response activities shall avoid working in or staging equipment in areas of buttonwood wetlands, mangrove wetlands, and freshwater wetlands or other undisturbed areas containing native vegetation. The Service or FWC shall be contacted immediately if there are questions regarding identification of appropriate work or staging areas.

Wood stork: Wood stork nest colonially in a variety of inundated forested wetlands, including cypress strands and domes, mixed hardwood swamps, sloughs, and mangroves. The birds forage mainly in shallow water in freshwater marshes, swamps, lagoons, ponds, tidal creeks, flooded pastures and ditches, where they are attracted to falling water levels that concentrate food sources (mainly fish). The following conditions shall be incorporated into the project.

a. No work shall be conducted within 2,500 feet of a nesting colony site unless approval is provided by the Service.

b. The work shall not cause negative hydrologic changes to the wetland system supporting a wood stork nesting colony site.

c. The work shall not result in wetland loss within a nesting colony site.

d. The work shall not cause negative impacts to nesting habitat and nearby vegetative cover or vegetation used for nest building. No work shall occur within 2,500 feet of a nesting colony.

e. Where work results in habitat loss, mitigation shall include restoration or creation at a ratio of 1:1 like for like wetlands within 2,500 feet of the nesting colony site.

f. No work shall be conducted during the early segment of nesting season from March 1 to May 30 and all restoration or creation activities shall be concluded prior to the next nesting season.

Fat three ridge, Chiploa slabshell, Purple bankclimber, Shinyrayed pocketbook, Gulf moccaisinshell, Ochlockonee moccasinshell, Oval pigtoe mussels. Mussels are found in the Econfina Creek, Apalachicola-Chattahoochee-Flint Rivers, Ochlochonee River, and Santa Fe River drainages. In these locations the following provisions shall be implemented:

a. In-stream work shall be kept to a minimum during the removal of existing roadway/bridge structures and approaches.

b. In-steam work must possess a State Water Quality Certification.

c. Clearing and shall be kept to the minimum level necessary for project completion.

d. Temporary erosion control devices shall be installed before any work is performed.

e. Permanent erosion control structures shall be installed before major grading activities are begun.

f. Fill slopes shall be graded to completion; cleared and grubbed areas shall be covered with erosion control mats and revegetated with fast growing native grasses. All disturbed soil, excavation spoil, and stockpiled materials shall be mulched daily or covered with erosion control mats. Stockpiled materials shall be placed to prevent rain runoff from washing materials into the waterway.

g. Surface runoff from disturbed areas shall be diverted into non-erodible areas. Runoff from undisturbed areas shall be prevented from flowing across disturbed areas through the use of permanent and/or temporary pipes, slope drains, or other approved methods. Silt laden water shall be filtered before returning to the waterway.

h. Erosion control structures shall be checked on a daily basis. When any structure is one-third filled, it shall be cleaned immediately. Removed materials shall be placed to prevent them from entering the waterway.

i. The waterway shall be monitored before, during, and after construction to ensure turbidity levels do not increase. If an increase is observed, construction shall cease until the source can be determined and shall not resume until the problem has been corrected. The erosion control plan shall be corrected should any circumstances cause or allow pollutants from the worksite to enter the waterway or damage the waterway's habitat.

j. No bridge structures or fill shall be placed in a stream or within 25 feet of a stream bank. Work activities shall be conducted from a stable stream bank or reinforced platform that does not cause degradation or destabilization of the stream banks.

k. All culverts to be replaced shall have appropriately-sized bottomless structures.

l. A protective platform shall be used to prevent construction debris from entering the waterway during the construction of a new bridge and the demolition of an existing bridge. Platforms shall utilize cap bottom forms with side forms around the perimeter, stay-in-place pre-stressed deck panels, and overhand forms with 12-inch side forms along the outer edge. Provisions shall be made to collect any seepage or drips from deck concrete placement and any grinding or grooving operations. Reinforced plastic sheeting or other approved material may be necessary to prevent seepage and drips. If material cutting is used, the platform shall be waterproof to prevent water and seepage from entering the waterway.

m. The existing bridge shall be removed to the level of the streambed or waterway bottom and disposed of in an approved off-site disposal area. The deck shall be cut into sections and lifted out of the stream through the use of a large crane. Wooden pilings shall be 'pinched' off at the substrate level by a pincher at the end of an arm.

n. In-stream work shall be contractually prohibited during the mussel breeding season (April 15-June 15); other activities that would not lead to increased erosion, sedimentation, or turbidity could be completed. Soil disturbance activities shall be completed between the time period of June 16 to April 14.

o. Borrow sites or stockpiling fill dirt within 200 feet of waterways or elsewhere where runoff from the site would increase sedimentation shall be prohibited.

p. Equipment staging areas and equipment maintenance areas (particularly for oil changes) shall be located at least 200 feet from waterways to minimize the potential for wash water, petroleum products, or other contaminants from construction equipment entering the waterway.

6.0 OTHER REQUIREMENTS

6.1 All applicable local, county, and state permits must be obtained.

6.2 Detailed state and county-specific monitoring and reporting requirements and work restrictions must be followed for work performed.

6.3 FEMA grant applicants must ensure that contractors fully understand the species protection measures that are to be followed.

6.4 A report describing the actions taken to implement these measures as outlined above shall be submitted to the Service's South Florida Ecological Services Office, in Vero Beach, the North Florida Ecological Services Office in Jacksonville, or the Panama City Ecological Services Office in Panama City (enclosed), within 60 days of completion of the proposed work for each year when the activity has occurred. This report must include: (1) project location; (2) project description; (3) date of construction; and (4) a description of how the measures were implemented. Specific information about the required species surveys will also be submitted and must include: the names and qualifications of marine permit holders involved in survey activities; descriptions of methods used; survey results; and any documented impacts of the project activities on the involved species.

6.5 Upon locating an injured or dead federally protected species that has been harmed as a direct or indirect result of the above authorized work, notification must be made to the FWC, Division of Law Enforcement at (888) 404-3922, and the appropriate Service's South Florida Ecological Services Office in Vero Beach at (772) 562-3909, Service's Jacksonville Field Office at (904) 525-0661, or the Panama City Office at (850) 769-0552. Care should be taken in handling injured animals to ensure effective treatment or disposition, and in handling dead specimens to preserve biological materials in the best possible state for later analysis.

6.6 There are many shorebird species that nest along the Atlantic Ocean and Gulf of Mexico shorelines and dunes. Many of these species are protected by the State of Florida or under review for federal protection. Implementing conservation for these species now may prevent the need to federally protect them in the future. The shorebird nesting season generally is 1 April to 1 September, but some nesting may occur through September. For example, the snowy plover may nest as early as February 15 along the Gulf coast of Florida.

a. Shorebird surveys should be conducted by trained, dedicated individuals using accepted, appropriate ecological survey procedures (for example, see "*Breeding Season Population Census Techniques for Seabirds and Colonial Waterbirds Throughout North America*" at URL: http://www.mp2-pwrc.usgs.gov/cwb/manual/).

b. Nesting season surveys should begin on April 1 (or February 15 in snowy plover habitat) or 45 days prior to construction commencement, whichever is later, and be conducted daily throughout the construction period.

c. Within the project area, the a site-specific buffer should be established around any location where shorebirds have been engaged in courtship or nesting behavior, or around areas where piping plovers occur or winter migrants congregate in significant numbers. Any and all construction activities, including movement of vehicles, should be prohibited in the buffer zone.

d. The width of the buffer zone should be increased if birds appear agitated or disturbed by construction or other activities in adjacent areas.

e. Designated shorebird buffer zones should be posted with clearly marked signs around the perimeter. These markings should be maintained until nesting is completed or terminated, the chicks fledge, or piping plovers or winter migrants depart.

f. No construction activities or stockpiling of equipment should be allowed within the shorebird buffer area.

FLORIDA COUNTIES

U.S. Fish and Wildlife Service

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Panama City, FL 32405-3721
(850) 769-0552

Jacksonville Field Office
6620 Southpoint Drive, Suite 310
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Alachua
Baker
Bay
Bradford
Brevard
Broward
Calhoun
Charlotte
Citrus
Clay
Collier
Columbia
De Soto
Dixie
Duval
Escambia
Flagler

Franklin
Gadsden
Gilchrist
Glades
Gulf
Hamilton
Hardee
Hendry
Hernando
Highlands
Hillsborough
Holmes
Indian River
Jackson
Jefferson
Lafayette
Lake

Lee
Leon
Levy
Liberty
Madison
Manatee
Marion
Martin
Miami-Dade
Monroe
Nassau
Okaloosa
Okeechobee
Orange
Osceola
Palm Beach
Pasco

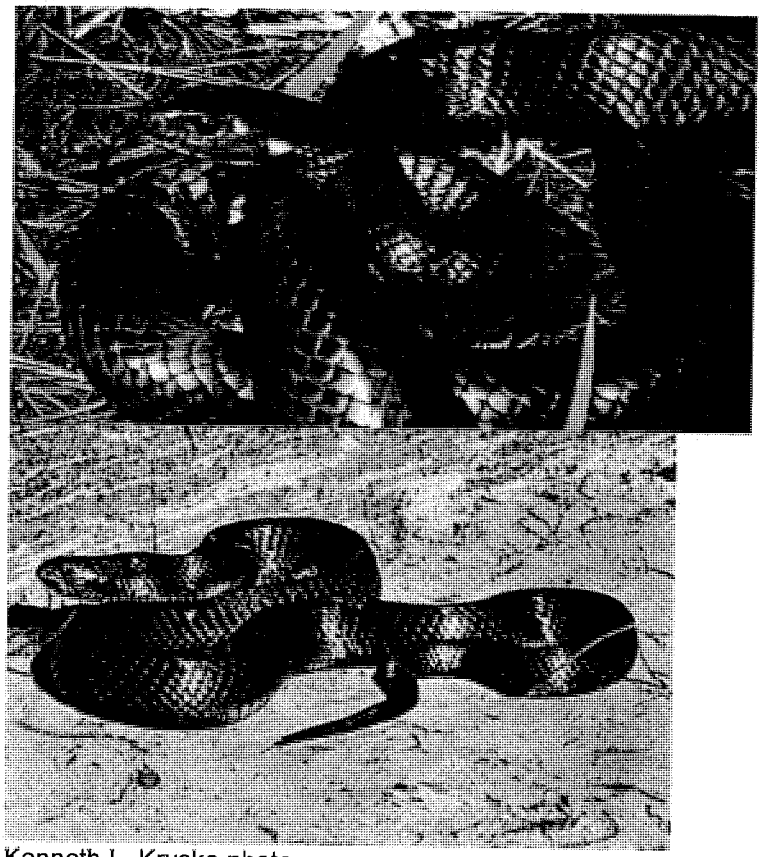
Pinellas
Polk
Putnam
Santa Rosa
Sarasota
Seminole
St Johns
St Lucie
Sumter
Suwannee
Taylor
Union
Volusia
Wakulla
Walton
Washington

1

Attachment A

Eastern Indigo Snake Educational Poster

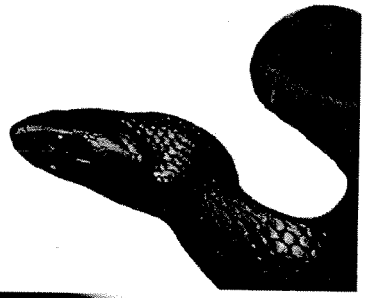
Eastern Indigo Snake



Kenneth L. Krysko photo.

Scientific name: *Drymarchon corais couperi*

Description: Average adult size is 60-74 inches (152-188 cm), and the record is 103.5 inches (262.8 cm). Adults are large and thick bodied. The body is glossy black and in sunlight has iridescent blue highlights. The chin, face, and throat are sometimes reddish-brown, rust colored, orange, tan or red and the color may extend down the body. The belly is cloudy orange and blue-gray. The scales on its back are smooth, but some individuals may possess some scales that are partially keeled. There are 17 dorsal scale rows at midbody. The pupil is round. Juveniles are black-bodied with narrow whitish blue bands.



Indigo snake: Top of the head

Indigo snake: Side of the head.

Range: It occurs throughout Florida and southeast Georgia. A different subspecies, *Drymarchon corais erebennus*, is found from southern Texas to southern Mexico.

Habitat: Indigos are widespread throughout the state, but nowhere are they abundant. They occur in hardwood forests, moist hammocks, pine flatwoods, prairies, and around cypress ponds.

Comments: This species is Harmless non-poisonous. Indigo snake populations in many parts of Florida have declined. It is listed as a 'Threatened Species' by the U.S. Fish and Wildlife Service and the Florida Fish and Wildlife Conservation Commission.

Because it seeks refuge in gopher tortoise burrows, along with diamondback rattlesnakes and many other organisms, in some parts of Florida the indigo is called the 'gopher snake'.

Comparison with other species: Young indigo snakes might be confused with southern black racers (Coluber constrictor priapus), which typically have white chins and throats. The black pine snake (Pituophis melanoleucus lodingi) may

retain a hint of dark crossbanding on its tail and lacks the iridescent sheen of the indigo.

Standard Protection Measures: It is unlawful to injure, harm, harass or kill this species. If a specimen is encountered during construction clearing activities shall cease to allow sufficient time for the snake to move away from the site on its own before resuming clearing. Sightings shall be reported to ***William (Bill) Smith of the Florida Fish and Wildlife Conservation Commission (941) 575-5765.*** If a dead specimen is encountered contact **Jane Monaghan of the *U.S. Fish and Wildlife Service at (561)-562-390*** and the snake should be soaked thoroughly in water, and then immediately frozen. Further guidance will be provided by U.S. Fish and Wildlife.

Post Construction: An eastern indigo snake monitoring report shall be submitted to the USFWS Florida Field Office within 60 days of conclusion of clearing phases. The report shall be submitted whether or not a snake is observed and should include the following: Any sightings of eastern indigo snakes, summaries of relocated snakes if relocation has been approved, and any other obligation required by the FFWCC.

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