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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01355

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SECTION 01355

ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.1 SCOPE

This Section covers prevention of environmental damage as the result of construction operations under this contract and for those measures set forth in other Technical Requirements of these specifications. For the purpose of this specification, environmental damage is defined as the presence of hazardous, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances; affect other species, biological communities, or ecosystems; or degrade the quality of the environment for aesthetic, cultural, and/or historical purposes. The control of environmental damage requires consideration of land, water, and air, and includes management of visual aesthetics, noise, solid waste, radiant energy and radioactive materials, as well as other pollutants.

1.2 QUALITY CONTROL

The Contractor shall establish and maintain quality control for environmental protection of all items set forth herein. The Contractor shall record on daily quality control reports or attachments thereto, any problems in complying with laws, regulations and ordinances, and corrective action taken.

1.3 PERMITS AND AUTHORIZATIONS

The Contractor shall obtain all needed permits or licenses. The Government will not obtain any permits for this project; see Clause PERMITS AND RESPONSIBILITIES of Section 00700 CONTRACT CLAUSES. The Contractor shall be responsible for implementing the terms and requirements of the appropriate permits as needed and for payment of all fees. In addition to the above, the contractor shall comply with all requirements under the terms and conditions set out in the following permit(s) and authorization(s) obtained by the Corps Of Engineers listed below. These permit(s) and authorization(s) are available for review by contacting the Jacksonville District, Environmental Branch at 904-232-2117.

Florida Department Of Environmental Protection permit No. 0190737-001-JC

1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals having an "FIO" designation are for information only. When used, a designation following the "G" designation identifies the office

that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Environmental Protection Plan ; G|PD.

Within 30 calendar days after the date of Notice of Award, the Contractor shall submit an Environmental Protection Plan for review and acceptance by the Contracting Officer. The Government will consider an interim plan for the first 30 days of operations. However, the Contractor shall furnish an acceptable final plan no later than 30 calendar days after receipt of Notice to Proceed. Acceptance of the Contractor's plan shall not relieve the Contractor of his responsibility for adequate and continuing control of pollutants and other environmental protection measures. Acceptance of the plan is conditional and predicated on satisfactory performance during construction. The Government reserves the right to require the Contractor to make changes to the Environmental Protection Plan or operations if the Contracting Officer determines that environmental protection requirements are not being met. No physical work at the site shall begin prior to acceptance of the Contractor's plan or an interim plan covering the work to be performed. The Environmental Protection Plan shall include but not be limited to the following:

- a. A list of Federal, State and local laws, regulations, and permits concerning environmental protection, pollution control, and abatement that are applicable to the Contractor's proposed operations and the requirements imposed by those laws, regulations, and permits.
- b. Methods for protection of features to be preserved within authorized work areas. The Contractor shall prepare a listing of methods to protect resources needing protection, i.e., trees, shrubs, vines, grasses and ground cover, landscape features, air and water quality, fish and wildlife, soil, historical, archeological, and cultural resources.
- c. Procedures to be implemented to provide the required environmental protection and to comply with the applicable laws and regulations. The Contractor shall provide written assurance that immediate corrective action will be taken to correct pollution of the environment due to accident, natural causes, or failure to follow the procedures set out in accordance with the environmental protection plan.
- d. A permit or license for and the location of the solid waste disposal area.
- e. Drawings showing locations of any proposed temporary excavations or embankments for haul roads, stream crossing, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials.
- f. Environmental monitoring plans for the job site, including land, water, air, and noise monitoring.

- g. Traffic control plan.
- h. Methods of protecting surface and ground water during construction activities.
- i. Spill prevention. The Contractor shall specify all potentially hazardous substances to be used on the job site and intended actions to prevent accidental or intentional introduction of such materials into the air, ground, water, wetlands, or drainage areas. The plan shall specify the Contractor's provisions to be taken to meet Federal, State and local laws and regulations regarding labeling, storage, removal, transport, and disposal of potentially hazardous substances.
- j. Spill contingency plan for hazardous, toxic, or petroleum material.
- k. Work area plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. Plan should include measures for marking the limits of use areas.
- l. Plan of borrow area(s).
- m. A statement as to the person who shall be responsible for implementation of the Environmental Protection Plan. The Contractor personnel responsible shall report directly to the Contractor's top management and shall have the authority to act for the Contractor in all environmental protection matters.
- o. Appendices (Permits and Ocean Dredged Material Disposal Site Monitoring and Management Plan if applicable). A copy of all permits (and Ocean Dredged Material Disposal Site Monitoring and Management Plans) applicable to the project shall be attached as appendices to the Environmental Protection Plan.
- p. Operational plan to achieve protection of sea turtles during hopper the operation.
- q. Steps to be taken so as not to impact migratory birds or induce their nesting.
- r. Steps to be taken to construct the project in such a manner as not to impact any native species.

SD-07 Certificates

Qualifications ; FIO.

The Contractor shall submit a certified copy of Florida Fish and Wildlife Conservation Commission (FF&WCC) permit for handling of sea turtle eggs.

Bird Nesting Monitoring Qualifications ; G|PD.

Within 20 calendar days after the date of Notice of Award, the Contractor shall furnish to the Contracting Officer for approval, the qualifications of the bird monitor/observer. Appropriate qualifications for bird

monitor/observer shall be a demonstrated ability to find and/or identify bird species, nesting behavior, eggs and nests, and habitat requirements.

SD-11 Closeout Submittals

Logs/Final Summary Report ; FIO.

Contractor shall submit as specified, logs and final summary report of sightings and incidents with endangered species.

Project Environmental Summary Sheet ; FIO.

Contractor shall submit within 30 days following completion of the project, a written report of the absence or occurrence of environmental incidents. In addition, for construction activities whose anticipated duration is more than one calendar year, the Contractor shall complete a sheet each May 31st (plus/minus 14 days).

Logs/Summary of Monitoring ; FIO.

Contractor shall submit as specified, logs and summary of monitoring detailing nesting and nesting success.

1.5 SUBCONTRACTORS

Assurance of compliance with this section by subcontractors shall be the responsibility of the Contractor.

1.6 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with the aforementioned Federal, State, or local laws or regulations, permits and other elements of the Contractor's environmental protection plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of proposed corrective action and take such action as may be approved. If the Contractor fails to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or costs or damages allowed to the Contractor for any such suspension.

Additionally, the Contractor shall notify the Contracting Officer, in writing, of the absence or occurrence of environmental incidents, as required on the Project Environmental Summary Sheet, copy appended to the end of this Section. (Refer to paragraph SUBMITTALS above.)

1.7 TRAINING OF CONTRACTOR PERSONNEL IN POLLUTION CONTROL

The Contractor shall train his personnel in all phases of environmental protection. The training shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, and careful installation and monitoring of the project to ensure adequate and continuous environmental pollution control. Quality

Control and supervisory personnel shall be thoroughly trained in the proper use of monitoring devices and abatement equipment, and shall be thoroughly knowledgeable of Federal, State, and local laws, regulations, and permits as listed in the Environmental Protection Plan submitted by the Contractor.

Quality Control personnel will be identified in the Quality Control Plan submitted in accordance with Section 01452 DREDGING/BEACH FILL PLACEMENT - CONTRACTOR QUALITY CONTROL.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.1 PROTECTION OF ENVIRONMENTAL RESOURCES

For contract work, the Contractor shall comply with all applicable Federal, State, or local laws and regulations. The environmental resources within the project boundaries and those affected outside the limits of permanent work under this contract shall be protected at least during the entire period of this contract. The Contractor shall confine his activities to areas defined by the drawings and specifications. Deviations from drawings or specifications (e.g., proposed alternate borrow areas, disposal areas, staging areas, and alternate access routes) could result in the need for the Government to reanalyze and re-approve the project from an environmental standpoint. Environmental protection shall be as stated in the following subparagraphs.

3.1.1 General Project Environmental Design and Installation Criteria

Some project sites have features that shall not be impacted in any way, including cultural, historic, or archeological features. At all sites, project plans should minimize disturbance to existing features at the site to the extent possible, including vegetative, topographic, and drainage pattern features.

In all cases, the design and/or installation of project system shall provide for protection of the environment during handling, installing, storing, utilizing, transporting, servicing, testing, refilling, transferring, pumping, processing, removing waste products, repairing and maintaining systems and their components. Necessary design protection shall also be considered that would prevent contamination of the environment from impacts to the system caused by storm water runoff and flooding. Retrofit of connected systems on project sites to modern environmental protection design standards shall also be considered.

In the event environmental protection measures fail, the Contractor shall implement procedures to control and correct environmental damage.

3.1.2 Protection of Land Resources

Prior to the beginning of any construction, the Contractor shall identify all land resources to be preserved or avoided within the Contractor's work area. Materials displaced into uncleared areas shall be removed. The Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, topsoil, and land forms without

special permission from the Contracting Officer. The Contractor shall engage a qualified tree surgeon to perform all tree surgery. The Contractor shall be responsible to repair injuries to bark, trunk, branches, and roots of protected trees by dressing, cutting, and painting as specified for Class I Fine Pruning, of the National Arborist Association Pruning Standards for Shade Tree or as per State's Agricultural Extension Agency Guidelines, immediately as occurrences arise. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized. Where such special emergency use is permitted, the Contractor shall provide effective protection for land and vegetation resources at all times as defined in the following subparagraphs.

3.1.2.1 Work Area Limits

Prior to any construction, the Contractor shall mark the areas that are not required to accomplish all work to be performed under this contract. Isolated areas within the general work area which are to be saved and protected shall also be marked or fenced. The Contractor shall protect from damage all existing trees designated to remain. Protection of tree roots shall be provided against noxious materials in solution caused by run-off or spillage. Fires shall be located outside the canopy of protected trees. No materials, trailers, or equipment shall be stored within the drip line of any protected tree. Monuments and markers shall be protected before construction operations commence. Where construction operations are to be conducted during darkness, the markers shall be visible. The Contractor shall convey to his personnel the purpose of marking and/or protection of all necessary objects.

The Contractor shall thoroughly clean all construction equipment at the prior job site in a manner that ensures all residual soil is removed and that egg deposits from plant pests are not present. The Contractor shall consult with the U.S. Department of Agriculture (USDA) regarding additional cleaning requirements that may be necessary.

3.1.2.2 Protection of Landscape

Trees and their roots, shrubs, vines, grasses, land forms, and other landscape features [indicated and defined on the drawings to be preserved] shall be clearly identified and protected by fencing or any other approved techniques. Protection of trees shall be as illustrated in the Tree Protection Plan Detail appended to the end of this Section. Tree protection fencing shall be placed before excavation or grading is begun and maintained in place until construction is complete. Branches of protected trees, if required, shall be removed to clear for construction and pruning shall subsequently be performed to restore the natural shape of the entire tree. Branches or roots, if required, shall be cut with sharp pruning instruments and not broken or chopped. Protected trees shall be fertilized to compensate for root loss with 6-6-6 as per manufacturer's application direction. Any damage to tree crowns or roots shall be repaired promptly after damage occurs.

3.1.2.3 Unprotected Erodible Soils

Earthwork brought to final grade shall be finished as indicated. Side

slopes and back slopes shall be protected as soon as practicable upon completion of rough grading. All earthwork shall be planned and conducted to minimize the duration of exposure of unprotected soils. Except in instances where the constructed feature obscures borrow areas, quarries, and waste material areas, these areas shall not initially be totally cleared. Clearing of such areas shall progress in reasonably sized increments as needed to use the areas developed as approved by the Contracting Officer.

3.1.2.4 Disturbed Areas

The Contractor shall effectively prevent erosion and control sedimentation through approved methods including, but not limited to, the following:

a. Retardation and Control of Runoff

Runoff from the construction site or from storms shall be controlled, retarded, and diverted to protected drainage courses by means of diversion ditches, benches, and by any measures required by area wide plans approved under paragraph 208 of the Clean Water Act.

b. Erosion and Sedimentation Control Devices

The Contractor shall construct or install temporary and permanent erosion and sedimentation control features as directed by the Contracting Officer. Temporary velocity dissipation devices shall be placed along drainage courses so as to provide for non-erosive flows.

3.1.2.5 Contractor Facilities and Other Work Areas

The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in areas designated on the drawings or as directed by the Contracting Officer. Temporary movement or relocation of Contractor facilities shall be made when approved by the Contracting Officer.

3.1.2.6 Solid Wastes

Solid wastes (excluding clearing debris) shall be placed in containers which are emptied on a regular schedule. All handling and disposal shall be conducted to prevent contamination. Solid waste materials shall be hauled to an approved solid waste disposal site [shown on the drawings] [designated by the Contracting Officer]. The Contractor shall comply with Federal, State, and local regulations pertaining to the use of the solid waste disposal site.

3.1.2.7 Fuel, Oil, and Lubricants

Fuel, oil, and lubricants shall be managed so as to prevent spills and evaporation. To prevent spills, fuel dispensers shall have a 4-foot square, 16-gauge metal pan with borders banded up and welded at corners right below the bibb. Edges of the pans shall be 8-inch minimum in depth to ascertain that no contamination of the ground takes place. Pans shall be cleaned by an approved method immediately after every dispensing of fuel

and wastes disposed of offsite in an approved area. Should any spilling of fuel occur, the Contractor shall immediately recover the contaminated ground and dispose of it offsite in an approved area.

3.1.2.8 Hazardous Waste

Hazardous wastes are defined in 40 CFR 261. The Contractor shall ensure that hazardous wastes are stored and disposed of in accordance with 40 CFR 261 and [State] [Commonwealth] [Territorial] and local regulations. The Contractor shall ensure that hazardous wastes are packed, labeled, and transported in accordance with 49 CFR 173 and State and local regulations.

3.1.2.9 Hazardous Materials

The Contractor shall ensure that hazardous materials are labeled, stored, and transported in accordance with 49 CFR 173, State, and local regulations.

3.1.2.10 Disposal of Other Materials

Other materials than previously discussed (Construction and Demolition, vegetative waste, etc.) shall be handled as directed.

3.1.3 Preservation and Recovery of Historic, Archeological, and Cultural Resources

3.1.3.1 Applicable Law

A number of Federal laws require protection of cultural resources. Two laws, in particular, can be potentially involved with dredging activities: (1) the National Historic Preservation Act, as amended; and, (2) the Abandoned Shipwreck Act.

3.1.3.2 Known Resources

Known historic, archeological and cultural resources within the Contractor's work area(s) are designated as a "sensitive environmental area" on the contract drawings or other documents. If so designated, the Contractor shall install protection for these resources and shall be responsible for their preservation during the contract's duration. The Contractor shall not distribute maps or other information on these resource locations except for distribution among the Contractor's staff with a "need to know" technical responsibility for protecting the resources.

3.1.3.3 Inadvertent Discoveries

If, during or other construction activities, the Contractor observes items that may have historic or archeological value, such observations shall be reported immediately to the Contracting Officer so that the appropriate Corps staff may be notified and a determination for what, if any, additional action is needed. Examples of historic, archeological and cultural resources are bones, remains, artifacts, shell, midden, charcoal or other deposits, rocks or coral, evidences of agricultural or other human activity, alignments, and constructed features. The Contractor shall cease all activities that may result in the destruction of these resources and

shall prevent his employees from further removing, or otherwise damaging, such resources.

The possibility of encountering submerged cultural resources is inherent in dredging and snagging operations. Such findings could include shipwrecks, shipwreck debris fields (such as streamed engine parts), prehistoric watercraft (such as log "dugouts"), and other structural features intact or displaced. The materials may be deeply buried in sediment, resting in shallow sediments or above them, or protruding into water. Suspected cultural materials inadvertently gathered from a water-saturated context should be kept moist by re-immersion, spraying, or some other expedient means of wetting until the appropriate Corps staff provide further directives. No interviews or other contact with media shall occur without clear authorization from the Contracting Officer or the appropriate Corps representative.

3.1.3.4 Claims for Downtime due to Inadvertent Discoveries

Upon discovery and subsequent reporting of a possible inadvertent discovery of cultural resources, the Contractor shall seek to continue work well away from, or otherwise protectively avoiding, the area of interest, or in some other manner that strives to continue productive activities in keeping with the contract. Should an inadvertent discovery be of the nature that substantial impact(s) to the work schedule are evident, such delays shall be coordinated with the Contracting Officer.

3.1.4 Protection of Water Resources

The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface, ground waters, and wetlands. The Contractor shall plan his operation and perform all work necessary to minimize adverse impact or violation of the water quality standard. Special management techniques as set out below shall be implemented to control water pollution by the listed construction activities which are included in this contract. The Contractor's construction methods shall protect wetland and surface water areas from damage due to mechanical grading, erosion, sedimentation and turbid discharges. There shall be no storage or stockpiling of equipment, tools, or materials within wetlands or along the shoreline within the littoral zone unless specifically authorized.

3.1.4.1 Washing and Curing Water

Waste waters directly derived from construction activities shall not be allowed to enter water areas. These waste waters shall be collected and placed in retention ponds where suspended materials can be settled out or the water evaporates so that pollutants are separated from the water. Analysis shall be performed and results reviewed and approved by Corps staff before water in retention ponds is discharged.

3.1.4.2 Monitoring of Water Areas

Monitoring of water areas affected by construction activities shall be the responsibility of the Contractor. All water areas affected by construction

activities shall be monitored by the Contractor.

3.1.4.3 Turbidity

The Contractor shall conduct his dredging and disposal operations in a manner to minimize turbidity and shall conform to all water quality standards as prescribed by Chapter 62-302, State of Florida, Department of Environmental Protection (FDEP). FDEP surface water quality standards can be obtained from the following websites:
<http://www.dep.state.fl.us/ogc/documents/rules/shared/62-302.pdf> and
<http://www.dep.state.fl.us/ogc/documents/rules/shared/62.302t.pdf>.

3.1.4.4 Oil, Fuel, and Hazardous Substance Spill Prevention and Mitigation

The Contractor shall prevent oil, fuel, or other hazardous substances from entering the air, ground, drainage, local bodies of water, or wetlands. This shall be accomplished by design and procedural controls. In the event that a spill occurs despite the design and procedural controls, the following shall occur:

- (1) Immediate action shall be taken to contain and cleanup any spill of oil, fuel or other hazardous substance.
- (2) Spills shall be immediately reported to the Contracting Officer.
- (3) Spill contingency planning shall be strictly in accordance with the criteria of 40 CFR, Part 109.
- (4) To control the spread of any potential spill, absorbent materials shall be readily available and capable of absorbing the contents of the single largest tank.
- (5) To control the spread of any potential spill, the Contractor shall provide a written certification of commitment of manpower, equipment, and materials required to expeditiously cleanup and dispose of spill materials.

3.1.5 Protection of Fish and Wildlife Resources

The Contractor shall keep construction activities under surveillance, management, and control to minimize interference with, disturbance to, and damage of fish and wildlife. Species that require specific attention along with measures for their protection shall be listed in the Contractor's Environmental Protection Plan prior to the beginning of construction operation.

In the event that a threatened or endangered species is harmed as a result of construction activities, the Contractor shall cease all work and notify the Contracting Officer.

3.1.5.1 Endangered Species Protection

The Contractor shall instruct all personnel associated with the project of

the potential presence of manatees and the need to avoid collisions with manatees.

a. Civil and Criminal Penalties

All construction personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act. The Contractor may be held responsible for any manatee harmed, harassed, or killed as a result of construction activities.

b. Siltation Barriers

If siltation barriers are used, they shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to or exit from essential habitat.

c. Vessel/Boat Operation

All vessels associated with the project shall operate at "no wake/idle" speeds at all times while in waters where the draft of the vessel provides less than a four-foot clearance from the bottom, and vessels shall follow routes of deep water whenever possible. Boats used to transport personnel shall be shallow-draft vessels, preferably of the light-displacement category, where navigational safety permits.

d. Manatee Sighting

If a manatee(s) is sighted within 100 yards of the project area, all appropriate precautions shall be implemented by the Contractor to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. If a manatee is closer than 50 feet to moving equipment or the project area, the equipment shall be shut down and all construction activities shall cease within the waterway to ensure protection of the manatee. Construction activities shall not resume until the manatee has departed the project area. If construction activity shall cease, notify the Contracting Officer.

e. Manatee Signs

Prior to commencement of construction, each vessel involved in construction activities shall display at the vessel control station or in a prominent location, visible to all employees operating the vessel, a temporary sign at least 8-1/2" x 11" reading, "CAUTION: MANATEE HABITAT/IDLE SPEED IS REQUIRED IN CONSTRUCTION AREA." In the absence of a vessel, a temporary 3' x 4' sign reading "CAUTION: MANATEE AREA" will be posted adjacent to the issued construction permit. A second temporary sign measuring 8-1/2" x 11" reading "CAUTION: MANATEE HABITAT. EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION" shall be posted at the dredge operator control station and at a location prominently adjacent to the issued construction permit. The Contractor shall remove the signs upon completion of construction. Sample Manatee Caution Signs are appended to

the end of this Section.

f. Manatee Sighting Reports

Any collisions with a manatee or sighting of any injured or incapacitated manatee shall be reported immediately to the Corps of Engineers. The order of contact within the Corps of Engineers shall be as follows:

Order of Contact of Corps Personnel for Dredging Contractor to Report Manatee Death or Injury

<u>Title</u>	<u>Telephone Number</u>	
	<u>Work Hours</u>	<u>After Hours</u>
Chief, Environmental Branch, Planning Division (CESAJ-PD-E)	904-232-2202	To be Provided
Mr. Charles McGehee, Chief, Construction Branch, Construction-Operations Division (CESAJ-CO-C)	904-232-1122	To be Provided
Mr. Gordon M. Butler, Jr., Chief, Construction-Operations Division (CESAJ-CO)	904-232-3765	To be Provided

The Contractor shall also immediately report any collision with and/or injury to a manatee to the Florida Marine Patrol "Manatee Hotline" 1-800-342-5367 as well as the U.S. Fish and Wildlife Service, Vero Beach Field Office at 561-562-3909 for South Florida.

g. Report Submission

The Contractor shall maintain a log detailing sightings, collisions, or injuries to manatees occurring during the contract period. The data shall be recorded on forms provided by the Contracting Officer (sample Daily Manatee Reporting Log is appended to the end of this Section). All data in original form shall be forwarded directly to Chief Environmental Branch, P. O. Box 4970, Jacksonville, Florida, 32232-0019, within 10 days of collection and copies of the data shall be supplied to the Contracting Officer. Following project completion, a report summarizing the above incidents and sightings shall be submitted to the following:

Florida Fish and Wildlife Conservation Commission
Bureau of Protected Species Management
620 South Meridian Street
Tallahassee, Florida 32399-1600

Chief, Environmental Branch
U.S. Army Corps of Engineers (CESAJ-PD-E)
P.O. Box 4970
Jacksonville, Florida 32232-0019

U.S. Fish and Wildlife Service
P. O. Box 2676
Vero Beach, Florida 32961-2676

The Contractor shall instruct all personnel associated with the project of the potential presence of manatees, and sea turtles in the area, and the need to avoid harming these animals. All construction personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing manatees or sea turtles which are protected under the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act. The Contractor shall be held responsible for any manatee, sea turtle, or whale harmed, harassed, or killed as a result of construction activities.

3.1.5.2 Sea Turtle Monitoring

a. Sea Turtle (Work Stoppage) Window and Monitoring

If dredging and placement of material in the beach fill area along Florida Beaches has commenced on or before March 1st, turtle monitoring and nest location shall commence on March 1st and continue concurrently with the performance of work. If dredging and placement of material on Florida Beaches has not commenced prior to March 1st, the Contractor shall commence turtle monitoring and nest location activities for a period of 65 days prior to performing any work (including movement of equipment) in the beach fill area. In such case, after turtle monitoring and nest location activities have been performed for a period of 65 days, the Contractor shall commence work in the beach fill area and continue the monitoring activities concurrently with performance of the work. In any case turtle monitoring and nest location/relocation activities are required through November 30th or until completion of the work on Florida Beaches, whichever is earlier.

b. Daily Visual Inspection

Turtle monitoring activities shall include performance of daily visual inspections of the beach at sunrise by a person permitted by the FF&WCC for handling sea turtle eggs. Any nests discovered shall be excavated and relocated prior to 9:00 a.m. to a nearby self-release beach location where artificial lighting and/or other disturbances shall not interfere with successful incubation, hatching nor hatchling orientation. A log of the results of turtle egg monitoring and recovery activities shall be kept and a copy submitted weekly to the Chief, Environmental Branch, Jacksonville District (sample Marine Turtle Nesting Summary Report form is appended to the end of this Section).

c. Turtle Subcontractor

The Contractor shall have a FF&WCC permitted subcontractor approved by the Contracting Officer to accomplish the sea turtle monitoring of this section unless he demonstrates to the satisfaction of the Contracting Officer the capability to accomplish sea turtle monitoring and recovery by obtaining a permit from the FF&WCC to take turtles.

d. Report Submission

Following completion of the project, a copy of the Contractor's log regarding sea turtles shall be forwarded to the Chief, Environmental Branch Office.

3.1.5.3 Beach Placement Restrictions

a. Equipment Lighting During Sea Turtle Nesting Period April 1 to November 30.

(1) During groin construction, no temporary lighting of construction area is authorized at anytime during the sea turtle nesting season from April 1 through November 30 with the following exception. Lighting will be allowed if safety lighting is required at any excavated trenches that must remain on the beach at night. This lighting must be the minimal lighting necessary to comply with safety requirements.

(2) During sand replacement from April 1 through November 30, direct lighting of the beach and near shore waters must be limited to the immediate construction area and must comply with safety requirements. Lighting on offshore or onshore equipment must be minimized through reduction, shielding, lowering, and appropriate placement to avoid excessive illumination of the water surface and nesting beach while meeting all Coast Guard, EM 385-1-1, and OSHA requirements. Light intensity of lighting plants must be reduced to the minimum standard required by OSHA for General Construction areas, in order not to misdirect sea turtles. Shields must be affixed to the light housing and be large enough to block light from all lamps from being transmitted outside the construction area. Refer to beach lighting schematic appended to the end of this Section.

b. Pipeline Placement

Any construction pipes placed parallel to the shoreline shall be placed as far landward as possible up to the vegetated dune line.

c. Beach Tilling

All tilling activity must be completed prior to April 1. If the project is completed during the nesting season, tilling will not be performed in areas where nests have been left in place or relocated.

d. Staging areas

From April 1 through November 30 staging areas for construction equipment must be located off the beach to the maximum extent practicable. Nighttime storage of construction equipment not in use must be off the beach to minimized disturbance to the sea turtle nesting and hatching activities. In addition, all groin construction material that are placed on the beach must be located as farlandward as possible without compromising the integrity of the existing or reconstructed dune system. Temporary storage of groin construction material must be off the beach to the maximum extent possible.

e. Excavation of Sea Turtle Nest during construction

In the event a sea turtle nest is excavated during the construction activities, the contracting officer representative must be contacted immediately. The Permitted person responsible for nest marking and/or egg relocation for the project must be notified by the contracting officer representative so the eggs can be moved to a suitable relocation site.

f. Location of Injured or Dead Sea Turtles

Upon locating a sea turtle adult, hatchling, or egg harmed or destroyed as a direct or indirect result of the project, notification must be made to the FWC, Bureau Of Marine Enforcement at 800-342-5367. Care should be taken in handling injured turtles or eggs to ensure effective treatment or disposition, in handling dead specimens to preserve biological material in the best possible state for later analysis. In addition to the above the Contractor shall comply with all requirements under the terms and conditions set out in the following permit(s) and authorization(s) obtained by the Corps of Engineers listed below. These permit(s) and authorization(s) are available for review by contracting the Jacksonville District, Environmental Branch at 904-232-2117.

Florida Department of Environmental Protection
Permit No. 0190737-001-JC

3.1.5.11 Escarpments

Visual surveys for escarpments along the project area shall be made immediately after completion of the beach nourishment project. Results of the surveys shall be submitted to the Contracting Officer. Escarpments that interfere with sea turtle nesting shall be mechanically leveled by the Contractor to the natural beach contour. If the project is completed during the main part of the nesting season escarpments may be required to be leveled immediately, while protecting nests that have been relocated or left in place. Once a beach section is accepted by the Contracting Officer as complete, Dade County Department of Environmental Resources Management (DERM) will take over the responsibility for visual surveys and escarpment removal.

3.1.5.4 Protection of Migratory Bird Species

The Contractor shall keep construction activities under surveillance, management, and control to prevent impacts to migratory birds and their nests. All construction personnel shall be advised that migratory birds are protected by the Florida Endangered and Threatened Species Act of 1977, Title XXVIII, Chapter 372.072, and the U.S. Fish and Wildlife Service pursuant to the Migratory Bird Treaty Act of 1918 and the Endangered and Threatened Species Act of 1982, as amended. The Contractor may be held responsible for harming or harassing the birds, their eggs or their nests as a result of the construction.

a. Monitoring of Construction Area

In order to meet these responsibilities, the Contractor shall conduct monitoring of the construction area beginning 1 April through 31 August, if construction activities occur during that period. Daily monitoring using the Daily Bird Monitoring Report shall be conducted during the dawn or dusk time frames by a bird monitor approved by the Contracting Officer.

(Caution shall be taken by the monitor to avoid disturbance to the nesting birds.) The Contractor shall maintain a daily log detailing monitoring and nesting activity (not all bird species are listed). Sample monitoring report and qualification sheet are appended to the end of this Section. Within 30 days after completion of construction, a summary of monitoring shall be submitted to the Corps detailing nesting and nesting success/failure including species, number of nests created, location, number of eggs, number of offspring generated during the project and reasons for nesting success or failure, if known.

b. Presence/Absence Survey

At least 3 visits must be made to each site during April-July. A 6-minute point count (variable circular plot) should be conducted between sunrise and 3 hours after sunrise or 1 hour prior to sunset. If breeding birds are encountered, nests shall be located and observed without disturbance to the nesting activity. Nests shall be marked and visited every 3-5 days to determine fate.

c. Nesting Activity Notification

Any nesting activity observed by the Contractor shall be reported immediately to the Contracting Officer who shall have sole authority for any work stoppages, creation of the buffer area, or restart of construction activities. In addition, the following personnel shall be notified:

Order of Contact of Corps Personnel to Report Bird Nesting Activities

<u>Title</u>	<u>Telephone Number</u>	
	<u>Work Hours</u>	<u>After Hours</u>
Chief, Environmental Branch, Planning Division (CESAJ-PD-E)	904-232-2202	To be Provided
Mr. Charles McGehee, Chief, Construction Branch, Construction-Operations Division (CESAJ-CO-C)	904-232-1122	To be Provided
Mr. Gordon M. Butler, Jr., Chief, Construction-Operations Division (CESAJ-CO)	904-232-3765	To be Provided

d. Nesting Within Construction Area

(1) Should nesting begin within the construction area, a temporary, 200-foot buffer shall be created around the nests and marked to avoid entry (the Contracting Officer will provide

signs). The area shall be left undisturbed until nesting is completed or terminated, and the chicks fledge. The decision to allow construction in a former nesting site will be determined by the Contracting Officer in consultation with the U.S. Fish and Wildlife Service and the FF&WCC. Access to the nesting sites by humans (except limited access when accompanied by the bird monitor or Contracting Officer), equipment or pets under control of the Contractor is prohibited.

(2) If nesting occurs within the construction area, a bulletin board shall be placed and maintained by the Contractor in the contracting shed with the location map of the construction site showing the bird nesting areas and a warning, clearly visible, stating that "BIRD NESTING AREAS ARE PROTECTED BY THE FLORIDA THREATENED AND ENDANGERED SPECIES ACT AND THE FEDERAL MIGRATORY BIRD TREATY ACT".

(3) Birds will find the top of the dike or the flat interior desirable nesting habitat. If construction activity ceases for any period of time, nesting may occur before work can resume. Any stoppage of activity could induce nesting, subsequently, construction could be altered or stopped to avoid impacting the birds unless the State of Florida and the U.S. Fish and Wildlife Service authorizes the interruption of nesting and/or destruction of the eggs. (NOTE: This authorization is highly unlikely.) Areas which are potentially suitable for nesting can be altered to make the area undesirable. One approved method is the placement of stakes at 10- to 15-foot intervals and tie flagging between the stakes in a web fashion. This may dissuade bird nesting until construction can be resumed. In addition, the disposal area basin can be flooded prior to the beginning of nesting season to the elevation required for displacement from the disposal of dredged material in order to make the basin undesirable for bird nesting.

e. Bird Monitoring Qualifications

The Contractor's Environmental Protection Plan shall contain the qualifications of the bird monitor and the steps to be taken to construct the project in such a manner as not to impact migratory birds or induce their nesting. The qualifications of the bird monitor are a demonstrated ability to identify bird species, general and nesting behavior characteristics, nests and eggs, and a knowledge of habitat requirements. In addition, references must be provided to verify non-educational experience.

f. Work Delay

Delays in work due to the fault of negligence of the Contractor or the Contractor's failure to comply with this specification shall not be compensable. Any adjustments to the contract performance period or price that are required as a result of compliance with this section shall be made in accordance with the Clause SUSPENSION OF WORK of Section 00700 CONTRACT CLAUSES.

3.1.6 Seagrass and Hardbottom Protection Measures

a. The Contractor shall instruct all personnel associated with the project of the presence of seagrasses and the need to minimize contact with seagrasses.

b. All construction personnel shall be advised that there are civil and criminal penalties for harming or destroying seagrasses, especially Johnson's Seagrass which is protected under the Endangered Species Act of 1973, as amended. The Contractor may be held responsible for any seagrasses harmed or destroyed due to construction activities.

c. The Contractor shall not anchor, place pipeline, or stage equipment in a manner that will cause any damage to seagrasses or hardbottoms. Anchoring, placing pipeline, or staging equipment shall avoid these sensitive areas. If such activities cannot be done without affecting these sensitive areas, the activities shall cease and the Contracting Officer and Chief, Environmental Branch (904-232-1685) shall be immediately notified (no later than the morning following the next working day if the incident occurs after normal working hours). Any actual or potential incident involving damage to, or disturbance of, seagrasses or hardbottoms shall be reported.

3.1.7 Protection of Air Resources

The Contractor shall keep construction activities under surveillance, management, and control to minimize pollution of air resources. All activities, equipment, processes and work operated or performed by the Contractor in accomplishing the specified construction shall be in strict accordance with the applicable air pollution standards of the State of Florida (Florida Statute, Chapter 403 and others and Chapters 200 series of the FAC) and all Federal emission and performance laws and standards, including the U.S. Environmental Protection Agency's Ambient Air Quality Standards. Information regarding Florida Statutes can be obtained from the following websites:

<http://www.dep.state.fl.us/ogc/documents/statutes/text/403.doc>;
<http://www.dep.state.fl.us/ogc/documents/rules/aiur/62-213.doc>; and,
<http://www.dep.state.fl.us/ogc/documents/rules/mainrule.htm>.

3.1.7.1 Particulates

Particulates, such as dust, shall be controlled at all times, including weekends, holidays, and hours when work is not in progress. The Contractor shall maintain excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, spoil areas, borrow areas, and work areas within or outside the project boundaries free from particulates that would cause air pollution standards to be exceeded or that would cause a hazard or nuisance. The Contractor shall have the necessary equipment and approved methods to control particulates as the work proceeds and before a problem develops.

3.1.7.2 Burning

All burning shall be subject to State and local requirements, including

requirements for burn permits and bans during certain conditions such as droughts.

3.1.7.3 Odors

Odors shall be controlled at all times for all construction activities.

3.1.8 Protection of Sound Intrusions

The Contractor shall keep construction activities under surveillance and control to minimize damage to the environment by noise.

3.2 POSTCONSTRUCTION CLEANUP

The Contractor shall clean up any area(s) used for construction.

3.3 PRESERVATION AND RESTORATION OF LANDSCAPE AND MARINE VEGETATION DAMAGES

The Contractor shall restore all landscape features and marine vegetation damaged or destroyed during construction operations outside the limits of the approved work areas. Such restoration shall be a part of the Environmental Protection Plan as defined in subparagraph "Environmental Protection Plan" of paragraph SUBMITTALS above. This work shall be accomplished at the Contractor's expense.

3.4 MAINTENANCE OF POLLUTION CONTROL FACILITIES

The Contractor shall maintain all constructed facilities and pollution control facilities and devices for the duration of the contract or for that length of time construction activities create the particular pollutant.

3.5 CONSTRUCTION FORMS AND DETAILS

From the Jacksonville District Home Page, click the links ORGANIZATIONS, ENGINEERING, then CONSTRUCTION FORMS AND DETAILS. See web site address www.saj.usace.army.mil/cadd/end/construction_forms_and_details.htm

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