



**DEPARTMENT OF THE ARMY**  
**NEW ORLEANS DISTRICT, CORPS OF ENGINEERS**  
**P.O. BOX 60267**  
**NEW ORLEANS, LOUISIANA 70160-0267**

REPLY TO  
ATTENTION OF:

JUL 14 2010

Operations Division  
Eastern Evaluation Section

SUBJECT: (Emergency Permit) NOD-20  
BASE FILE: MVN 2010-1066-ETT

Ms. Kristi Cantu  
State of Louisiana  
Coastal Protection and Restoration Authority  
Post Office Box 44027  
Baton Rouge, Louisiana 70804-4027

Dear Ms. Cantu:

This in reference to emergency authorization (MVN-2010-1066-ETT) issued to the State of Louisiana, Coastal Protection and Restoration Authority by the US Army Corps of Engineers, New Orleans District (CEMVN) on May 27, 2010, to dredge and fill to construct six berm reaches for protection from the Deepwater Horizon Oil Spill along the seaward shoreline of the Chandeleur Islands/Breton National Wildlife Refuge westward to Baptiste Collette Bayou and along the seaward shoreline of Timbalier Island eastward to Sandy Point. Material to construct the berms would be dredged from Ship Shoal, South Pelto, the Mississippi River Offshore Disposal Site, Pass a Loutre, St. Bernard Shoal and Hewes Point.

Your request to relocate berm reach W-9 partially onto the seaward shoreline of Pelican Island, as shown on the attached drawings (5 sheets, sheets 2 & 3 dated 6/19/2010 and sheets 1, 4 & 5 dated 6/22/2010) is authorized. Special Conditions 34, 35 & 36 below have been added to assure that hopper dredge activity in the Gulf of Mexico complies with the federal requirements. Special Conditions 37 & 38 are specific to the revised plans for berm reach W-9.

34. Dredging and dredged material disposal and monitoring of dredging projects using the Silent Inspector (SI) system shall be implemented for this permit. The permittee's SI system must have been certified by the SI Support Center within one calendar year prior to the initiation of the dredging/disposal. Questions regarding certification should be addressed to the SI Support Center at 877-840-8024. Additional information about the SI System can be found at <http://si.usace.army>. The permittee is responsible for ensuring that the SI system is operational throughout the dredging and disposal project and that project data are submitted to the SI National Support Center in accordance with the specifications provided at the aforementioned website. The data collected by the SI system shall, upon request, be made available to the CEMVN.

35. The permittee shall provide full financial compensation for the collection and management of the SI data, as stipulated by SI Support Center. The cost is estimated to be \$375.00 per day for each hopper dredge operating in the Gulf of Mexico under this authorization. Remittances for estimated charges per month shall be paid by the end of each month that the hopper dredge activity continues, commencing with the first payment due at the end of July 2010. Payments shall be made to the Corps, New Orleans District by check or money order and shall be made payable to **“FAO-B2”, RETURN TO: US ARMY CORPS OF ENGINEERS, CHIEF REGULATORY BRANCH, POST OFFICE BOX 60267, NEW ORLEANS, LOUISIANA 70160-0267.**

36. Attached to this letter is a document titled Endangered Species Protection for Sea Turtles & Gulf Sturgeon. These measures are incorporated into this authorization (by reference) and shall be complied with during all hopper dredge activity in the Gulf of Mexico authorized by this permit. Point of contact at CEMVN for any questions or further information regarding the Sea Turtle Protection Measures is Mr. Ed Creef (ph #504-862-2521).

37. Pre-construction bird surveys shall be conducted at berm reach W-9 and the US Fish and Wildlife Service (FWS) shall be notified if colonial bird nest sites are identified within the 650-foot buffer specified in Special Condition # 21 of the original authorization letter for this project. If colonial bird nests are identified within the 650-foot buffer, the permittee shall contact Patti Holland at the FWS (ph # 337-291-3121) to coordinate the use of a qualified observer to monitor each colonial nest (within the 650-foot buffer) to determine the minimum distance at which construction can occur without disturbing those nests.

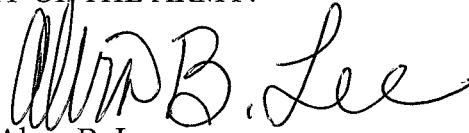
38. The permittee shall avoid all impacts to vegetated wetlands except for areas within the footprint of berm reach W-9. The limits of fill placement on wetlands and/or intertidal flats shall be staked prior to beginning construction. Use of tracked vehicles and other mechanized equipment outside the fill footprint is prohibited. No dredging or excavation of in-situ material is authorized.

All other Special Conditions (33) and Provisions (2) of this permit remain in full force and effect.

A copy of this signed letter with attachments must be provide to and retained by each hopper dredge operating in the Gulf of Mexico for the duration of the work authorized by this permit.

The enclosed copy of this letter must be signed by a duly appointed representative of the State of Louisiana with authority to bind the state, indicating acceptance of this permit modification.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:



Alvin B. Lee  
Colonel, US Army  
District Commander

Enclosures:

1. Revised site plans for Reach W-9
2. Endangered Species Protection for Sea Turtles & Gulf Sturgeon

The above terms and conditions are satisfactory and are accepted.

By: \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_



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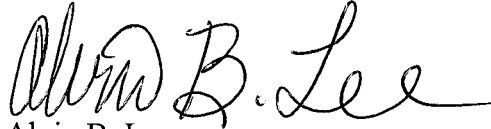
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The above terms and conditions are satisfactory and are accepted.

By: \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_



LOUISIANA'S EMERGENCY BERM PERMITTING REGULATIONS - JULY 2009 - JUN 2010 - 450 LAUREL STREET - BATON ROUGE, LOUISIANA 70801

VOLUME = 770,000 CY  
 AREA = 130.3 ACRES  
 BERM LENGTH = 13,030 FT.

N 2860000

E 3834000

N 2860000

E 3830000

P.O.C.  
 X = 31,830,711.9  
 Y = 279,028.8

90+00

11+51

16+29

N 2760000

N 2760000

PELICAN ISLAND

LANDWARD TOE OF BERM

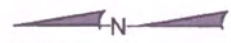
BASELINE

SEAWARD TOE OF BERM

SLOPE BREAK

GULF OF MEXICO

MATCHLINE PV-2



**NOTES:**

1. COORDINATES ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83). ELEVATIONS ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
2. AERIAL PHOTOGRAPH ON THIS SHEET FROM NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP), 2009.

APPLICATION BY:  
 OFFICE OF COASTAL PROTECTION & RESTORATION  
 450 LAUREL STREET  
 BATON ROUGE, LOUISIANA 70801

DESIGNED BY:  
 OFFICE OF COASTAL PROTECTION & RESTORATION  
**ENGINEERING BRANCH**  
 450 LAUREL STREET  
 BATON ROUGE, LOUISIANA 70801

APPROVED BY:

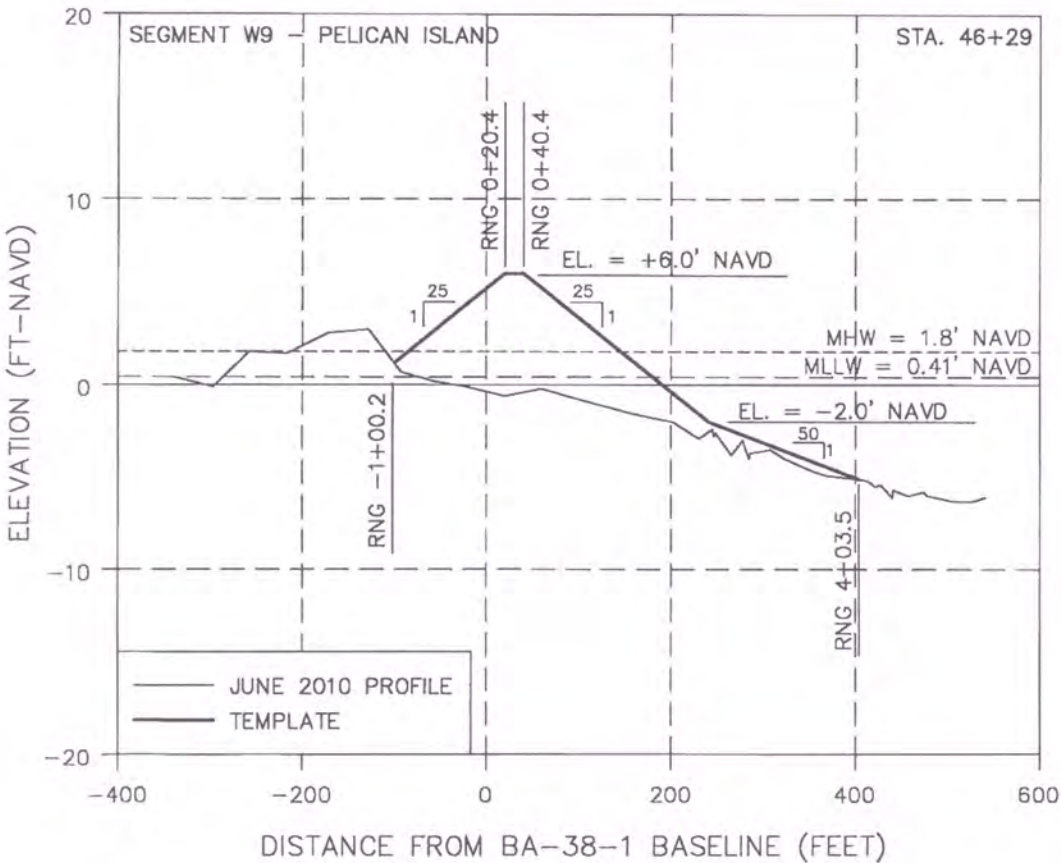
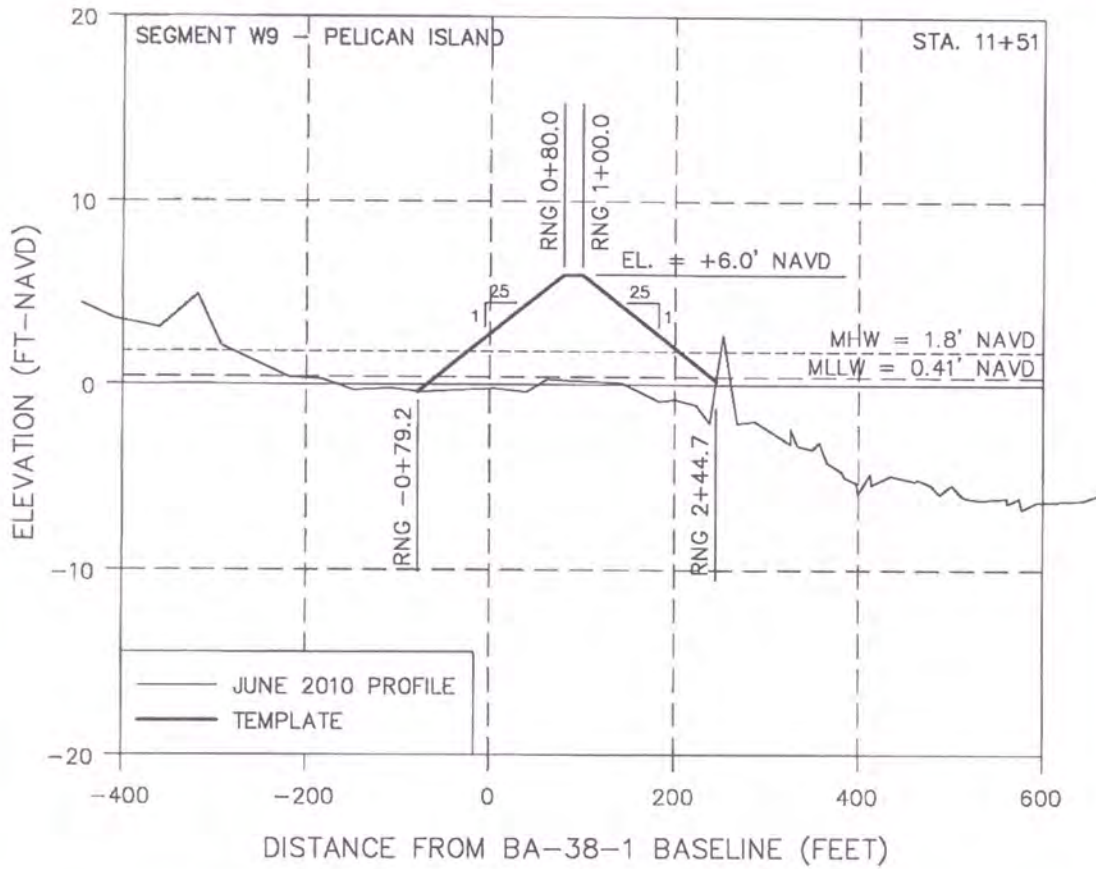
STATE PROJECT NUMBER:  
 FEDERAL PROJECT NUMBER:  
 DATE: 6/19/10  
 SHEET 2 OF 5

SEGMENT W9  
 PLAN VIEW

BARRIER ISLAND  
 DEFENSE







SEGMENT W9  
PROFILES

BARRIER ISLAND  
DEFENSE

OFFICE OF COASTAL PROTECTION & RESTORATION  
**ENGINEERING BRANCH**  
450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

APPLICATION BY:  
OFFICE OF COASTAL PROTECTION & RESTORATION  
450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

DATE: 6/22/2010

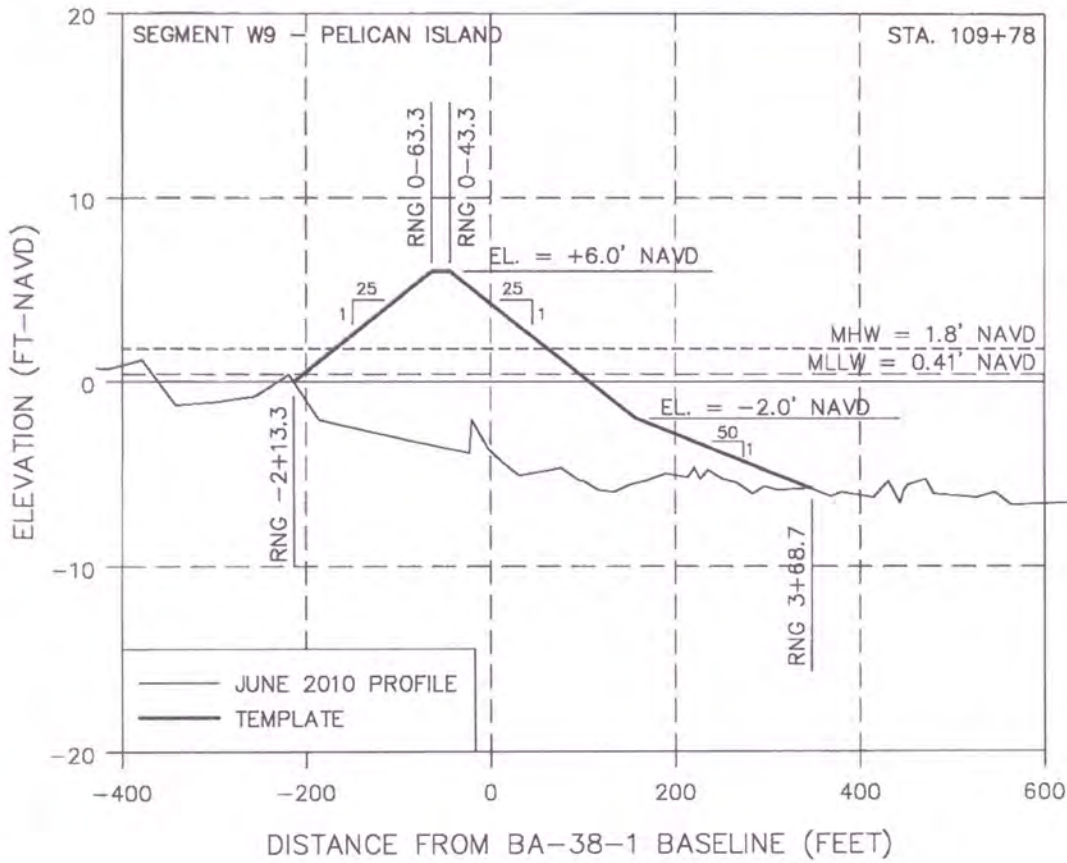
STATE PROJECT NUMBER:  
FEDERAL PROJECT NUMBER:

SHEET 4 OF 5

APPROVED BY:

DESIGNED BY:

DRAWN BY:



<p>APPLICATION BY: OFFICE OF COASTAL PROTECTION &amp; RESTORATION 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>	<p>OFFICE OF COASTAL PROTECTION &amp; RESTORATION <b>ENGINEERING BRANCH</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>	<p>BARRIER ISLAND DEFENSE</p>	<p>SEGMENT W9 PROFILES</p>
<p>DRAWN BY:</p>	<p>DESIGNED BY:</p>	<p>STATE PROJECT NUMBER:</p>	<p>DATE: 6/22/10 SHEET 5 OF 5</p>

## Endangered Species Protection for Sea Turtles & Gulf Sturgeon

### A. General:

1. The Contractor shall instruct all Contractor personnel associated with the project of the potential presence of sea turtles and Gulf sturgeon, and the need to avoid contact with these animals. All Contractor personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing sea turtles and Gulf sturgeon, which are protected under the Endangered Species Act of 1973.

2. The Contractor shall be held responsible for any sea turtle or Gulf sturgeon harmed, harassed, or killed as a result of construction activities not conducted in accordance with these specifications.

### B. Pre-Commencement of Dredging Inspection:

Prior to the commencement of hopper dredging, and throughout the dredging operations, the Government Inspector will inspect specific sea turtle requirements. The list of inspections that the Government Inspector will perform is on a sea turtle inspection checklist entitled "USACE Sea Turtle Inspection Checklist for Hopper Dredges" that can be found at the following website: (<http://el.ercdc.usace.army.mil/seaturtles/index.cfm>). All identified deficiencies shall be corrected prior to the commencement of hopper dredging activities.

### C. Sea Turtle or Gulf Sturgeon Incidental Takes

**Dredging operations shall cease immediately upon the first incidental take of either a sea turtle or a Gulf sturgeon, and thereafter as directed by the Corps, until the District Engineer, or his designee, notifies the Permittee to resume dredging.** The Permittee shall immediately notify Mr. Edward Creef by phone (504-862-2521 office or 504-390-8703 cell) and e-mail ([Edward.D.Creef@usace.army.mil](mailto:Edward.D.Creef@usace.army.mil)) that an incidental take has occurred. The Sea Turtle Mortality Report, available on the website (<http://el.ercdc.usace.army.mil/seaturtles/index.cfm>) will be filled out by the National Marine Fisheries Service (NMFS)-Approved Protected Species Observer immediately (within 6 hours) and sent to Mr. Edward Creef by fax (504-862-2317) or electronically at the e-mail address listed above.

### D. Draghead Operation:

Every effort shall be made to minimize pump operation while the dragheads are suspended in the water column including but not limited to the following:

- (i) When initiating dredging, suction through the dragheads shall be allowed just long enough to prime the pumps, then the dragheads must be placed

firmly on the bottom.

- (ii) When lifting the dragheads from the bottom, suction through the dragheads shall be allowed just long enough to clear the lines, then must cease.
- (iii) Pumping water through the dragheads shall cease while maneuvering or during travel to/from the disposal area.
- (iv) Raising the dragheads off the bottom to increase suction velocities is not acceptable. The act of placing a draghead on the bottom is a primary cause of sea turtle takes as a sea turtle may become trapped directly beneath it. The primary adjustment for providing additional mixing water to the suction line shall be through water intake ports on top of the draghead.
- (v) During turning operations the pumps must either be shut off or reduced in speed to the point where no suction velocity or vacuum exists.

## E. Sea Turtle/Sturgeon Monitoring

### 1. Screening

- a. The dredge shall have either hopper in-flow screening correctly positioned, or hopper overflow screening correctly installed if overflowing will occur. The method and location of screening selected shall depend on individual dredge design. The screens shall have openings no greater than 4" by 4". The screens shall sample 100 percent of the in-flow or overflow, as applicable, and shall remain in place throughout the contract period. The screen structure shall be designed to withstand all forces exerted on the screens during dredging operations. Screen design and operation shall be approved by the Contracting Officer's Representative prior to commencement of dredging. No dredging can proceed until screen design and operation is approved and installed. Damaged screens shall be repaired by the Contractor before commencing dredging on the load subsequent to the time the damage is detected.
- b. The Contractor shall install and maintain floodlights, approved by the Contracting Officer, suitable for illumination of the screens to allow the observer(s) to safely monitor the retained contents during non-daylight hours.

### 2. Draghead Deflector Requirements

Prior to the start of dredging work, the Contractor shall have rigid turtle deflectors installed on dredge dragheads. Sea turtle deflectors shall have a solid metal face with no openings in the face. Deflectors should remain installed during all hopper dredging activities. The Contractor shall submit a detailed drawing outlining the actual dimensions for the deflectors for approval by the Contracting Officer prior to commencement of dredging. Two drawings outlining the minimum dimensional

criteria for the deflectors are available on the website (<http://el.erdc.usace.army.mil/seaturtles/index.cfm>).

- a. The turtle deflector shall be designed so that the bottom surface of the deflector is parallel with the bottom of the channel at the required dredging depth.
- b. The water intake ports on the top of the draghead shall be screened with metal elliptical cages, or other suitable means to exclude sea turtles from entering. All screens or cages shall have 4 inch by 4 inch, or smaller openings. The use of scraper blades attached to the dragheads is allowed.
- c. The turtle deflector device shall be maintained in operational condition and inflow/overflow screens monitored and cleared as needed throughout the entire dredging operation.
- d. The bottom surface of the draghead, i.e. the part of the draghead that comes in contact with the bottom, shall not contain a screen that is added to the draghead to prevent large debris from entering. If the draghead were to injure or kill a turtle/sturgeon, a screen may prevent the injured or killed turtle/sturgeon from entering the draghead.

#### F. NMFS-Approved Protected Species Observers

1. NMFS-Approved Protected Species Observers shall monitor the presence of sea turtles and Gulf sturgeon. A list of acceptable firms can be obtained by contacting NMFS (Mr. Eric Hawk) in St. Petersburg, Florida at TEL: [REDACTED]. A partial list of NMFS-Approved Protected Species Observer companies is provided as an attachment.
2. The observers shall be provided quarters and meals aboard the dredge at least equal to that of the dredge crew. The Contractor shall provide safety training for all observers working aboard the dredge. Observers will continuously monitor all of the hopper inflow and/or over-flow screens 24 hours per day during dredging mode, to detect turtles/sturgeon or turtle/sturgeon parts. Screen monitoring shall be conducted as required to effectively watch these screens, based on the design, configuration, and position thereof. The observers shall be provided access and use of a facsimile and cellular telephone 24 hours per day to insure, in the event of a sea turtle/sturgeon take, the observers will be able to fulfill the reporting requirements.
3. The Contractor shall be responsible for assuring that:
  - (1) any state or Federal approvals necessary to conduct sea turtle/sturgeon monitoring as described herein are obtained.
  - (2) any necessary State or Federal clearances for the transportation of injured sea turtles/sturgeons to rehabilitation facilities are obtained.

(3) temperatures in the waterway are taken, in degrees Fahrenheit, at the surface. The readings shall be made each eight hours for the duration of each dredging assignment. The latitude/longitude coordinates shall be recorded corresponding to each temperature reading.

(4) during transit of the dredge to/from the disposal site(s), after dredging has ceased, the screen observer shall assure that the hopper screens are cleaned of debris and correctly re-installed on the dredge for return to dredging mode. The observer shall immediately report damage of the screens to the Contractor's Representative upon detection of such damage, and the screens shall be repaired or replaced before dredging is resumed.

(5) complete turtle/sturgeon data reporting is made.

(6) dead turtles/sturgeons – upon removal of sea turtle/sturgeon and/or parts from the draghead or screening, observers shall take photographs as to sufficiently document major characteristics of the turtle/sturgeon or turtle/sturgeon parts including but not limited to dorsal, ventral, anterior, and posterior views. For all photographs taken, a backdrop shall be prepared to document the dredge name, observer company name, contract title, time, date, species, load number, location of dredging, and specific location taken (draghead, screening, etc.). The photos shall be attached to respective reports for documentation and later identification.

(7) carcass/turtle parts shall also be scanned for flipper and Passive Integrated Transponder (PIT) tags. Any identified tags shall be recorded on the "Sea Turtle Incidental Take Form" that is included in the "Endangered Species Observer Program Forms" located on the website (<http://el.erdc.usace.army.mil/seaturtles/index.cfm>). Turtle parts which cannot be positively identified to species on board the dredge or barge(s) shall be preserved by the observer(s) for later identification.

(8) all live or dead sea turtles and Gulf sturgeon recovered in hopper screens and/or dragheads shall be tissue-sampled by the observer.

a. sea turtle tissue samples shall be taken in accordance with NMFS' Southeast Fisheries Science Center's procedures for sea turtle genetic analyses. Tissue sampling protocols can be found at the following USACE Jacksonville District website: (<http://www.saj.usace.army.mil/Divisions/Engineering/DOCS/CADD/appentit/01355/geneticsampleprotocol.pdf>). All sea turtle tissue samples shall be collected, properly stored, and mailed within 60 days of the completion of dredging work to: NOAA, National Marine Fisheries Service, Southeast Fisheries Science Center, Attn: Lisa Belskis, 75 Virginia Beach Drive, Miami, Florida 33149. After all data collection is complete, all dead sea turtles/parts and/or dead Gulf sturgeon parts should be transported to the Institute of Marine Mammal Studies facilities in Gulfport, Mississippi.

b. Gulf sturgeon tissue samples (i.e., fin clips or barbell clips) shall be taken in accordance with NFMS SERO's Protected Resources Division's (PRD) Gulf

Sturgeon Tissue Sampling Protocol found at the NMFS SERO PRD web site address: (<http://sero.nmfs.noaa.gov/pr/sturgeon.htm>). All Gulf sturgeon tissue samples shall be collected, properly stored, and mailed within 60 days of the completion of dredging work to: NOAA, National Marine Fisheries Service, Protected Resources Division, Attn: Dr. Stephania Bolden, 263 13<sup>th</sup> Avenue South, St. Petersburg, Florida 33701.

(9) observer(s) shall measure, weigh, tag, and release any uninjured turtles incidentally taken by the dredge. Turtle handling and tagging methods shall be performed in accordance with NMFS-approved procedures. Injured turtles shall be transported to the Institute of Marine Mammal Studies facilities in Gulfport, Mississippi. Uninjured turtles either may be released into waters minimally impacted by presence of oil/dispersants (to be determined by the relocation trawling supervisor in coordination with Edward Creef and Dena Dickerson [REDACTED], or transported to the Institute of Marine Mammal Studies facilities in Gulfport, Mississippi.

4. The Contractor may choose to have the observers provide educational information to all dredge personnel on sea turtles.

#### G. Sea Turtle Sightings

1. As a result of consultation under Section 7 of the Endangered Species Act of 1973, as amended, the U.S. Army Corps of Engineers has agreed to report any sea turtle activity to the NMFS. This reporting requirement is extended to contractors working for the U.S. Army Corps of Engineers, or under a Corps-issued permit. The Contractor shall immediately notify the District personnel (point of contact) listed below of any collisions with, injuries to, or killing of sea turtles by telephone. The notification should include the number and species of turtles (if known) impacted and the time the activity occurred.

New Orleans District, Operations Division,  
Operations Technical Support Branch,  
Mr. Edward Creef  
(504) 862-2521 office, (504) 390-8703 cell, and fax (504) 862-2317

2. If the Contractor's personnel observe any sea turtles in the vicinity of the work site, such sightings shall be promptly reported to the NMFS-Approved Protected Species Observers if an observer is onboard the dredge. If known, then the species of turtle should be reported as well. Turtle identification pamphlets shall be kept on the bridge of the dredge to aid in determining the species sighted.

#### H. Reporting

The NMFS-Approved Protected Species Observers shall maintain a log detailing all incidents, including sightings, collisions with, injuries, or killing of sea



turtles/sturgeon occurring during the contract period. The results of the monitoring shall be recorded on copies of the observation sheet, entitled "Protected Species Observer Program Daily Report", which can be found at the following website (<http://el.erd.c.usace.army.mil/seaturtles/docs/observerforms.pdf>).

For each load, screen watch data shall be consolidated on a single sheet prior to beginning a new sheet for the next load. An observation sheet shall be completed for each load whether or not turtles are sighted in the waterway or turtle/sturgeon parts are detected on the screens. Dredging shall not commence until the consolidated report is completed from the previous dredging load. All consolidated and completed data reports shall be forwarded to the District point of contact, and report copies shall be supplied to the Contracting Officer within 24 hours after completion of data reports (fax number 504-862-2317; email: [edward.d.creef@mvn02.usace.army.mil](mailto:edward.d.creef@mvn02.usace.army.mil)). Observers should immediately notify the District point of contact of any collisions with, injuries to, or killing of sea turtles/sturgeon by telephone, email or facsimile. The notification should include the number and species of turtles impacted and the time the activity occurred.

Observer reports of protected species incidental takes must be faxed or emailed to NMFS' Southeast Regional Office (FAX: 727-824-5309; email: [takereport.nmfsser@noaa.gov](mailto:takereport.nmfsser@noaa.gov)) within 24 hours of any sea turtle, Gulf sturgeon, or other protected species take.

## I. Sea Turtle Trawling and Relocation

Sea Turtle Trawling and Relocation, as specified herein, will be at the option and in the discretion of the Government to aid in preventing the taking of sea turtles during dredging operations with the approved turtle deflector in place. Within 72 hours after receiving written directions from the Contracting Officer, the Contractor shall begin trawling for turtles to relocate them from the dredging project area. Relocation trawling shall be performed so as to not interfere with dredging operations in progress.

### 1. Approved Sea Turtle Trawling and Relocation Supervisor

A NMFS-Approved Protected Species Observer (supervisor) shall conduct sea turtle trawling. A letter of approval from NMFS shall be provided to the Contracting Officer or his/her authorized representative prior to commencement of trawling. If trawling in Louisiana territorial waters outside of the shrimping season, the approved sea turtle trawling and relocation supervisor must also possess a Scientific Collecting Permit from the Louisiana Department of Wildlife and Fisheries (point of contact is Ms. Karen Foote at [REDACTED]).

### 2. Sea Turtle Trawling Procedures

Any captured sea turtles either shall be transported to the Institute for Marine Mammal Studies located in Gulfport, Mississippi, or released into waters minimally impacted by presence of oil/dispersants (to be determined by the relocation

trawling supervisor in coordination with Edward Creef and Dena Dickerson ( [REDACTED] ). Any captured gulf sturgeons shall be released immediately after capture and handling for measurements away from the dredging site in waters minimally impacted by presence of oil/dispersants (to be determined at the time of capture by the trawling supervisor in coordination with Edward Creef and Dena Dickerson). Methods and equipment shall be standardized including data sheets, nets, trawling direction to tide, length of station, length of tow, and number of tows per station. Data on each tow shall be recorded using the Sea Turtle Trawling Report found at the website (<http://el.erd.c.usace.army.mil/seaturtles/docs/trawlingforms.pdf>). The trawler shall be equipped with 60-foot nets constructed from 8-inch mesh (stretch) fitted with mud rollers and flats as specified in the Turtle Trawl Nets Specifications appended to the end of this Section. Paired net tows shall be made for 24 hours per day, as directed by the Contracting Officer or his/her authorized representative. The tows shall be performed in shifts, to be determined by the Contracting Officer or his/her authorized representative, and the trawler shall be available for operation 24 hours a day. Positions at the beginning and end of each tow shall be determined from GPS Positioning equipment. Refer to EM 1110-1-1003 "Navstar global positioning system surveying", paragraph 5.3 and Table 5-1, for acceptable GPS criteria.

### 3. Trawling Requirements

Trawling operations shall be conducted in the vicinity of dredge operations, but shall maintain a safe distance from that dredge. NOTE: ALL TRAWLING ACTIVITIES, VESSELS AND EQUIPMENT SHALL COMPLY WITH THE CONTRACTOR'S ACCIDENT PREVENTION PLAN AND THE REQUIREMENTS OF EM 385-1-1, U.S. ARMY CORPS OF ENGINEERS SAFETY AND HEALTH REQUIREMENTS MANUAL. Trawling shall be conducted with and against the tidal flow at a speed not to exceed 3.5 knots using repetitive trawls in the channel or other work area not to exceed 42-minutes (total time). Trawls shall be made in the center, green, and red sides of the channel such that the total width of the channel bottom is trawled.

### 4. Sea Turtle/Gulf Sturgeon Handling and Measurements

At least one crewmember who is a NMFS-Approved Protected Species Observer shall be on board the trawler during the trawl. The observer shall be responsible for handling of captured sea turtles and Gulf sturgeons. Each captured turtle or gulf sturgeon shall be identified, scanned for PIT tags, measured, tagged, tissue sampled and released, and data recorded on the Sea Turtle Tagging and Relocation Report, which can be found at the following website: (<http://el.erd.c.usace.army.mil/seaturtles/docs/taggingforms.pdf>). Presence of PIT tags shall be scanned for by using a multi-frequency scanner capable of reading multiple frequencies (including 125-, 128-, 134-, and 400-kHz tags) and reading tags deeply embedded in muscle tissue. Any captured sea turtles shall be transported to the Institute for Marine Mammal Studies located in Gulfport,

Mississippi. Turtle measurements shall be recorded and shall include, at a minimum, weight, straight-line length, straight-line width, and tail length. Gulf sturgeon measurements shall be recorded and shall include, at a minimum, weight, total length, and fork length. Turtles shall be tagged with NMFS #681 Inconel tags in each of the front flippers according to NMFS protocol. Aseptic conditions shall be maintained for tags and tag attachment. The Contractor shall be responsible for obtaining any and all permits related to trawling from the appropriate state and Federal agencies. All aspects of the trawling shall be coordinated with Edward Creef (504-862-2521) and Dena Dickerson ([REDACTED]).

#### 5. Handling Fibropapillomatose Turtles

Anyone handling sea turtles infected with fibropapilloma tumors shall either: 1) clean all equipment that comes in contact with the turtle with mild bleach solution between the processing of each turtle, or 2) maintain a separate set of sampling equipment for handling turtles displaying fibropapilloma tumors or lesions.

#### 6. Water Quality and Physical Measurements

Water temperature measurements shall be taken at the water surface each day using a laboratory thermometer. Weather conditions shall be recorded from visual observations and instruments on the trawler. Weather conditions, air temperature, wind velocity and direction, sea state-wave height, and precipitation shall be recorded on the Sea Turtle Trawling Report. High and low tides shall be recorded.

#### 7. Repair and Replacement of Damaged Trawl Nets

The Contractor, at the time of mobilization, shall provide trawl nets that meet the requirements specified in the Turtle Trawl Net Specifications at the end of this section. Tools, supplies and materials for repairing nets shall be kept aboard the trawler. In the event of damage to trawl nets, one hour will be allowed to either repair or replace them. The Contractor shall have at least one set of replacement nets immediately available at all times, to insure that the dredging work is not adversely delayed due to trawler down-time for replacing damaged nets. It is recommended that a second set of replacement nets be available aboard the trawler.

#### 8. Suspension of Dredging and Relocation Trawling

Should there be a tearing of nets, or breakdown of other equipment that would cause the trawler to leave the area where dredging is underway during any period of time where relocation trawling is required, the dredge may continue to operate for up to 48 hours, as long as no turtles are taken, and subject to the discretion of the Contracting Officer. Should there be dangerously high seas that would cause the trawler to leave the dredging area when relocation trawling is required, the

dredge may continue to operate, as long as no turtles are taken and subject to the discretion of the Contracting Officer.

#### 9. Turtle Excluder Devices

Approval for trawling for sea turtles without Turtle Excluder Devices (TEDs) must be obtained from NMFS (contact Eric Hawk at [REDACTED]). Any necessary State or Federal clearances for the capture and relocation of sea turtles must also be obtained. Approvals must be submitted to the Contracting Officer or his/her authorized representative prior to trawling.

#### 10. Reporting

Immediately after completing each day of relocation trawling, if possible, the Contractor shall notify Dena Dickerson by telephone conveying the results of the trawl. The results of each trawl shall be recorded on the Sea Turtle Trawling Report. The Sea Turtle Trawling Report also shall be furnished by the Contractor to Mr. Edward Creef, U.S. Army Corps of Engineers, New Orleans District, within 24 hours after completing the relocation trawl (fax number 504-862-2317; email: [edward.d.creef@usace.army.mil](mailto:edward.d.creef@usace.army.mil)). Following completion of the project, a copy of the Contractor's log regarding sea turtles shall be forwarded to Mr. Edward Creef within 10 working days.

#### J. Silent Inspector:

All hopper dredges shall be equipped with the Silent Inspector (SI) system for hopper dredge monitoring. The SI system must have been certified by the Engineer Research and Development Center (ERDC) within the last year. Questions regarding certification should be addressed to the SI support team at 601-634-2923. The SI is an automated dredge monitoring system comprised of both hardware and software developed by the U.S. Army Corps of Engineers. The SI consists of three major components: The Dredge Specific System (DSS), the Ship Server, and the Shore Server. The DSS collects and displays various dredge sensor data for the dredge crew to monitor dredge progress and quality control. The other major task of the DSS is to send data to the Ship Server. Most dredging contractors already have a computer system and sensors onboard for control or positioning that can be used as the DSS. The dredging contractor supplies and owns the DSS and all associated sensors. The Ship Server acts as the dredged-based data archive and report creation center by storing the data from the DSS and performing automated review of the data. The Ship Server can produce many different reports including dredge location history, volume history, and an operational status. Additional information about SI can be found at: <https://si.usace.army.mil/>. The data collected by the SI system shall, upon request, be made available to the Operations Division Technical Support Branch of the New Orleans District U.S. Army Corps of Engineers.

**Partial List of NMFS-Approved Sea Turtle Observers**

<p>Dr. L. M. Ehrhart                  Dept. of Biological Science                  University of Central Florida                  P.O. Box 25000                  Orlando, FL 32816                  [Redacted]                  Fax: [Redacted]                  [Redacted]</p>	<p>A.I.S. Inc.                  (P.O.C. Arv Poshkus)                  19 Camden Street                  P.O. Box 421                  Stoughton, MA 02072-0421                  [Redacted]                  Fax: [Redacted]                  [Redacted]</p>	<p>Mary Jo Barkaszi                  ECOES, Inc.                  7341 Glenwood Road                  Cocoa, FL 32927                  [Redacted]                  Fax: [Redacted]                  [Redacted]                  www.ecoes.com</p>
<p>Jane Provancha                  Dynamac Corporation                  DYN-2                  Kennedy Space Ctr., FL 32899                  [Redacted]                  Fax: [Redacted]                  [Redacted]</p>	<p>R. Eric Martin                  Ecological Associates, Inc.                  P.O. Box 405                  Jensen Beach, FL 34958                  [Redacted]                  Fax: [Redacted]                  [Redacted]</p>	<p>Roxanne Carter                  REMSA, Inc. *                  124 W Queens Way                  Hampton, VA 23669                  [Redacted]                  Fax: [Redacted]                  [Redacted]</p>
<p>Christopher Slay, President *                  Coastwise Consulting                  (Environmental Consultants -                  Land, Sea, Air)                  173 Virginia Avenue                  Athens, GA 30601                  [Redacted]                  [Redacted] Fax/Tel                  [Redacted]</p>	<p>Richard Alboth                  Tiny's Marine Environmental                  Services                  7 Rogers Street                  Randolph, MA 02368                  [Redacted]                  Cellular: [Redacted]                  [Redacted]</p>	<p>Andrea Balla-Holden,                  Marine &amp; Marine Life Consulting                  5988 SE Kelsey Court                  Port Orchard, WA 98367                  [Redacted]                  [Redacted]</p>
<p>Trish Bargo, *                  East Coast Observers, Inc.                  P.O. Box 6192                  Norfolk, VA 23508                  [Redacted]                  [Redacted] Fax                  [Redacted] Cell                  [Redacted]</p>		<p>Robert K. Metzger *                  Relocation Trawling Biologist                  1327 N. Wheaton Dr.                  St. Charles, MO 63301-0881                  [Redacted] Tel/Fax                  [Redacted] Cell                  [Redacted]</p>

\* Contractors that also provide sea turtle trawling and relocation services.

## Turtle Trawl Net Specifications

**DESIGN:** 4 Seam, 4 Legged, 2 Bridal Trawl Net

**WEBBING:** 4 inch bar, 8 inch stretch

Top – 36 Gauge Twisted Nylon Dipped

Side – 36 Gauge Twisted Nylon Dipped

Bottom – 84 Gauge Braided Nylon Dipped

**NET LENGTH:** 60 ft from cork line to cod end

**BODY TAPER:** 2 to 1

**WING END HEIGHT:** 6 feet

**CENTER HEIGHT:** Dependent on depth of trawl – 14 to 18 feet

**COD END:** Length 50 meshes x 4 inches equals 16.7 feet

Webbing 2 inch bar, 4 inch stretch, 84 gauge braid nylon

Dipped, 80 meshes around, 40 rigged meshes with ¼ x 2

inch choker rings, 1 each ½ x 4 inch at end

Cod End Cover – none

Chaffing Gear – none

**HEAD ROPE:** 60 ft ½ inch combination rope (braid nylon with stainless cable center)

**FOOT ROPE:** 65 ft ½ inch combination rope

**LEG LINE:** Top – 6 ft, Bottom – 6 ft

**FLOATS:** Size – Tuna Floats (football style), Diameter – 7 Inches; Length – 9 inches; number 12 each;

Spacing – center of top net 2 inches apart

**MUD ROLLERS:** Size – 5 inch Diameter, 5.5 inch length

Number – 22 each; spacing – 3 ft attached with 3/8 inch

Polypropylene rope (replaced with snap on roller when broken)

**TICKLER CHAINS:** NONE (Discontinued – but previously used ¼ inch x 74 ft galvanized chain)

**WEIGHT:** 20 ft of ¼ inch galvanized chain on each wing, 40 ft per net looped and tied

**DOOR SIZE:** 7 ft x 40 inches (or 8 ft x 40 inches); Shoe – 1 inch X 6 inch: bridles – 3/8 inch high test chain

**CABLE LENGTH:** (Bridle Length, Total) : 7/16 inch x 240-300 ft varies with bottom conditions

**FLOAT BALL:** NONE

**LAZY LINES:** 1 inch nylon

**PICKUP LINES:** 3/8 inch polypropylene

**WHIP LINES:** 1 inch nylon