

CHALAND HEADLAND RESTORATION (BA 38-2) CWPPRA PROJECT

ENVIRONMENTAL PROTECTION

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ENVIRONMENTAL PROTECTION

1. SCOPE

The Environmental Protection section of the Contract Documents addresses CONTRACTOR responsibilities for the prevention of pollution and other environmental damage as the result of construction operations under the Contract Documents, including those measures set forth in the Technical Provisions. For the purpose of this specification, pollution and other environmental damage are defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic, cultural, and/or historical purposes, or unnecessarily damage/destroy environmental resources. The control of pollution and damage requires consideration of air, water, land and the marine environment and includes management of construction activities, visual aesthetics, noise, solid waste, radiant energy, and radioactive materials, as well as other pollutants. The CONTRACTOR shall fulfill these specifications at the CONTRACTOR'S expense.

2. QUALITY CONTROL

The CONTRACTOR shall establish and maintain quality control for environmental protection for all items set forth herein. The CONTRACTOR shall record on Daily Quality Control reports any problems in complying with laws, regulations and ordinances, as well as project permits, and corrective action taken.

3. PERMITS

The CONTRACTOR shall comply with all requirements under the terms and conditions set out in all permits applicable to the Work. The project permit application is provided as Appendix 1 to this section of the contract. The permit will be given to the CONTRACTOR at the pre-construction meeting, and is part of the Contract Documents. Specifically, the CONTRACTOR will familiarize himself/herself with general and specific conditions contained in the Louisiana Department of Natural Resources permit, the U.S. Army Corps of Engineers permit, the Minerals Management Service permit, the Environmental Protection Agency Permit, the Louisiana Department of Environmental Quality permit, and other State approvals for the project. Any other licenses, easements or approvals required, including, but not limited to those which may be required by Plaquemines Parish or the GOVERNMENT, shall be secured and paid for by the CONTRACTOR.

4. SUBCONTRACTORS

Assurance of compliance with all sections of the contract by subcontractors shall be the responsibility of the CONTRACTOR, including compliance with all environmental and permit requirements.

5. NOTIFICATION

The GOVERNMENT will notify the CONTRACTOR of any known noncompliance with the aforementioned Federal, State, or Local laws or regulations, permits and other elements of the CONTRACTOR'S environmental protection plan. Nevertheless, it remains the sole responsibility of the CONTRACTOR to comply with all applicable Federal, State or Local laws or regulations, permits and all elements of the environmental protection plan. If there is known non-compliance, the GOVERNMENT will determine what action will be taken and such response will be transmitted to the CONTRACTOR by the GOVERNMENT which may include stopping construction of the project until the CONTRACTOR complies with the environmental protection plan. It will also be the CONTRACTOR'S responsibility that all subcontractors shall comply with all applicable laws, regulations, permit requirements and all elements of the environmental protection plan.

6. PROTECTION OF ENVIRONMENTAL RESOURCES

The environmental resources within the project boundaries and those affected outside the limits of permanent work under this contract shall be protected during the entire period of this contract. To meet this requirement, the CONTRACTOR shall confine all activities to areas defined by the Plans and specifications. The CONTRACTOR shall, at all times, maintain adequate stakes or other markers required to delineate and layout work areas, access areas and corridors, protected land or environmental resources, no entrance areas, and sensitive areas to ensure the protection of resources. The disturbance of lands and waters that are outside the limits of construction as marked on the plans is prohibited, except as found necessary and approved by the GOVERNMENT. The CONTRACTOR shall conduct his work in such manner as to prevent the entry of fuels, oils, bituminous materials, chemicals, sewage or other harmful materials into streams, lakes, marshlands, bays, or the Gulf of Mexico. The CONTRACTOR also shall conduct his work in such manner as to prevent the placement of any fill material and the discharge of project-related discharges of turbid effluent and runoff into streams, lakes, marshlands, bays, or the Gulf of Mexico. All waterways shall be cleared as soon as practicable of false work, stakes, piling, debris, or other obstructions placed during construction operations and not a part of the finished work. Details regarding environmental protection shall be as stated in the following subparagraphs.

6.1 Protection of Land Resources: Prior to the beginning of any construction, and at the request of the CONTRACTOR, the GOVERNMENT shall identify land resources (if any) to be preserved within the CONTRACTOR'S work area. Unless indicated in the plans or directed by the GOVERNMENT, the CONTRACTOR shall not remove, cut, deface, injure, or destroy land resources including sand dune, marsh or berm vegetation, trees, shrubs, vines, grasses, topsoil, and landforms without direct written permission from GOVERNMENT. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized by the Government. Where such special emergency use is allowed, the CONTRACTOR shall provide effective protection for land and vegetation resources at all times as defined in the following paragraphs. The CONTRACTOR will be responsible for the replacement of any damaged or destroyed vegetation outside the fill area, and the restoration of any water bottoms and land forms to the satisfaction of the GOVERNMENT. Failure to replace damaged or destroyed vegetation or failure to restore damaged water bottoms and land forms outside the fill area by the

CONTRACTOR may result in replacement by the GOVERNMENT; the cost of replacement will be deducted from monies due to the CONTRACTOR or from monies which will be due to the CONTRACTOR by the GOVERNMENT.

6.1.1 Work Area Limits: Isolated areas (if any) within the work area which are to be saved and protected shall also be identified by the GOVERNMENT and marked or fenced by the CONTRACTOR. All survey monuments and markers shall be protected before construction operations commence. Where construction operations are to be conducted during darkness, the markers shall be made visible by lighting. The CONTRACTOR shall convey to all subcontractors and personnel the purpose of marking and/or protection for all necessary objects.

6.1.2 Retardation and Control of Runoff: Runoff from the construction site shall be controlled by the CONTRACTOR by the construction, maintenance, and operations of primary and secondary retention dikes, temporary water control structures or spillboxes, routing of effluent and discharge through fill and water discharge areas, use of turbidity control measures such as silt curtains, and active management of all effluent, discharge and runoff. Dikes will be constructed as shown on the plans and described in the Technical Specifications above the mean high water line and maintained in continuous repair to allow settling of fine materials from dredging, or as required by permit documents.

6.1.3 Disposal of Solid Wastes: Solid wastes (including clearing debris) shall be placed in containers which are removed from the beach area and emptied on a regular schedule. The CONTRACTOR will empty containers when three-quarters full and will avoid overflow conditions. All handling and disposal shall be conducted to prevent contamination. No steel, cables, wire, pipe, drums OR ANY OTHER SOLID WASTE OR DEBRIS shall be permitted to be disposed overboard into the waters of the Gulf of Mexico or any other water body. Disposal of solid wastes or debris in the Gulf of Mexico is a violation of State and Federal laws. If such debris is found, the debris shall be removed by the CONTRACTOR at his own cost, or the cost of removal deducted from the CONTRACTOR'S final payment.

6.1.4 Disposal of Chemical Waste: Chemical waste shall be stored in corrosion resistant containers, removed from the work area and disposed of in accordance with Federal, State, and Local regulations. The CONTRACTOR shall perform all maintenance of equipment, including but not limited to refueling, filter changes, and replacement of hydraulic lines in a manner so as not to contaminate soils, ground or surface waters, or any other natural resources.

6.1.5 Disposal of Discarded Materials: Discarded materials other than those which can be included in the solid waste category will be handled by the CONTRACTOR as directed by the GOVERNMENT.

6.1.6 Use of Equipment: Outside the fill areas as marked on the plans, any wheeled or tracked vehicles used on the project site shall be kept away from existing

vegetated wetlands, bay shorelines, gulf shorelines, or any other sensitive areas unless authorized by the GOVERNMENT. The CONTRACTOR will be responsible for returning any disturbed wetlands, land resources and natural resources outside the project area to pre-project conditions at his expense. Marsh buggy use on existing vegetated areas and wetlands outside of the fill areas is strictly PROHIBITED.

6.2 Protection of Water, Fish, and Wildlife Resources:

6.2.1 The CONTRACTOR shall conduct his work in a manner that will not cause damaging siltation or pollution of any water bodies. All applicable Federal and State regulations of agencies and statutes relating to the prevention and abatement of pollution shall be complied with in the performance of the Contract.

6.2.2 The CONTRACTOR shall keep construction activities under continued surveillance, management, and control to minimize interference with, disturbance to, and damage of water, fish and wildlife resources. Species that require specific consideration, as well as measures for their protection, will be addressed in the CONTRACTOR'S Environmental Protection Plan prior to the beginning of project construction.

6.2.3 The CONTRACTOR shall note that bays, water bottoms, creeks and ponds in the vicinity of the project may include numerous publicly- and privately-issued leases for the cultivation and harvest of commercial fishery resources.

6.2.4 A water discharge area is identified within the construction plans. The number and location of discharges into the area is at the discretion of the CONTRACTOR. The CONTRACTOR is required to discharge water from the discharge area into adjacent waters to avoid impoundment of water. The CONTRACTOR must provide a Turbidity Control Plan detailing means and methods for any discharge of water outside the project footprint. The plan must contain methods to limit turbidity and sedimentation in open water. Turbidity curtains shall be used at all outflow areas. The turbidity control plan must be submitted to the GOVERNMENT seven (7) days prior to the pre-construction meeting.

The CONTRACTOR may use any number or design of water control structures for water discharge provided the structure is of sufficient size to discharge an appropriate volume of water. The rate of discharge must be manually controllable with the ability to completely shut off discharge through the structure.

6.2.5 In the event that the GOVERNMENT observes signs of the discharge of turbid waters which form noticeable plumes outside the limits of work, the GOVERNMENT may, at its sole discretion, require that the CONTRACTOR immediately initiate twice daily turbidity sampling with reports to the GOVERNMENT, following the monitoring protocol provided in Appendix 2. No additional compensation shall be paid to the contractor for this work.

6.3 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 Louisiana and all Federal emission and performance laws and standards.

6.4 Dispensing of Fuel: Secondary containment, which is capable of holding at minimum 110% of the tank contents, must be provided by the CONTRACTOR for each fuel storage tank. 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 contain the spill and contact the GOVERNMENT and the appropriate local authorities. The CONTRACTOR will be solely responsible for any fines, penalties or other legal activities related to fuel spills.

6.5 Temporary Sanitary Facility: The CONTRACTOR shall furnish and maintain chemical toilets for use by its employees on the project site. Chemical toilets shall be cleaned on a regular basis to ensure that odor does not become a nuisance. The CONTRACTOR shall be responsible to coordinate, maintain and monitor a cleaning schedule which is appropriate for the number of CONTRACTOR personnel on site.

6.6 Storage of Lubricants: All lubricants and other potential liquid pollutants shall be stored in sealed, non-corrosive containers. Individual containers shall be stored in metal pans with borders banded up and welded at the corners right below the bibb. Pans shall be deep enough to prevent contamination of the ground. Pans shall be kept clean of all spillage or leakage.

7. PROTECTION OF HIGHLY MIGRATORY AND OTHER PROTECTED BIRDS

In accordance with the provisions of Technical Specifications, the CONTRACTOR shall take non-lethal hazing measures to discourage the establishment of bird nesting in the project areas beginning no later than April 15, 2004. The purpose of this requirement is to discourage the nesting of birds protected by the U.S. Fish and Wildlife Service and the Louisiana Department of Wildlife and Fisheries. Protected bird species most likely to be encountered include, but are not limited to, least terns, black skimmers, and brown pelicans. The CONTRACTOR is invited to employ personnel familiar with protected birds to allow for easy identification of birds encountered during the execution of work under this contract.

At a minimum, beginning April 15, 2004, and throughout the period of construction, the CONTRACTOR shall patrol, twice daily, gulf-side beaches, associated sand flats and overwash areas, and island fill areas to discourage pre-nesting behavior (congregation, loafing, staging) and to discourage the establishment of nests. This effort includes not only existing beaches, dunes and sand flats, but dunes, dune slopes, beach berms, and other areas of island fill created during the execution

of work. The CONTRACTOR shall especially patrol/traverse unvegetated or sparsely vegetated sand flats overwash areas, and island fill areas such as the created dune, which are prime nesting habitat. Such patrols shall continue throughout the period of construction, or until all work (including grading and shaping, sand fence installation, and access activities) is completed for acceptance segments. In the event that pre-nesting (i.e., congregation, staging, loafing) is repeatedly observed, the CONTRACTOR shall immediately notify the GOVERNMENT, may elect to increase the frequency of the gulf-side patrols, and may propose other methods for GOVERNMENT consideration. In the event that the CONTRACTOR discovers any evidence of nests or eggs of any protected bird species, the CONTRACTOR shall immediately cease work in the immediate vicinity of the nest and shall immediately notify the GOVERNMENT.

The CONTRACTOR may propose measures in addition to twice daily patrols for GOVERNMENT consideration.

The CONTRACTOR shall submit a weekly report no later than five calendar days after the close of the weekly reporting period. The report shall describe the hazing methods used, any bird observations, and any additional actions taken.

8. POST CONSTRUCTION CLEAN-UP

The CONTRACTOR shall clean-up any area used for construction as stated in General Conditions.

9. RESTORATION OF LANDSCAPE DAMAGE

The CONTRACTOR shall restore all landscape features, land resources, water resources, and fish and wildlife resources damaged or destroyed during construction operations outside the limits of the approved work areas. Such restoration shall be in accordance with a plan submitted for approval by the GOVERNMENT. This work will be accomplished at the CONTRACTOR'S expense. Final payment to the CONTRACTOR shall not occur until the GOVERNMENT is satisfied with the CONTRACTOR'S effort to restore landscape or any other damage caused by the CONTRACTOR or his subcontractors.

10. MAINTENANCE OF POLLUTION CONTROL FACILITIES

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

11. TRAINING OF CONTRACTOR PERSONNEL IN POLLUTION CONTROL AND ENVIRONMENTAL PROTECTION

The CONTRACTOR shall train all subcontractors and personnel in all phases of environmental protection. Personnel and subcontractors will be familiar with permit requirements, and with the necessity of protection of all habitats. The training shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, and installation and care of facilities to insure 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 the General Conditions.

12. FUEL OIL TRANSFER OPERATIONS

In accordance with the U.S. Coast Guard regulations (33 CFR 156.120, or as revised or updated), couplings used in fuel oil transfer operations on any vessel with a capacity of 250 or more barrels of oil (or fuel) shall be either a bolted or full-threaded connection; or a quick-connect coupling approved by the Commandant; or an automatic back-pressure shutoff nozzle used to fuel the vessel. An executed fuel oil transfer (Declaration) form signed by the tanker man shall be completed for each refueling operation. The U.S. Coast Guard shall also be notified prior to any refueling.

13. SUBMITTALS

13.1 Environmental Protection Plan: Seven (7) days prior to the pre-construction meeting, the CONTRACTOR shall submit in writing an Environmental Protection Plan to the GOVERNMENT. Approval of the CONTRACTOR'S plan will not relieve the CONTRACTOR of his responsibility for adequate and continuing control of pollutants and other environmental protection measures. The Environmental Protection Plan shall include but may not be limited to the following:

13.1.1 Methods for protection of features and habitats to be preserved within authorized work areas. The CONTRACTOR shall prepare a listing of methods to protect resources needing protection, i.e. all vegetation, trees, shrubs, vines, grasses and ground cover, landscape features, air and water quality, fish and wildlife, soil, historical, archeological and cultural resources, and environmental resources.

13.1.2 Procedures to be implemented by the CONTRACTOR to assure compliance with the environmental protection requirements of Section 6.1, Environmental Protection, and to comply with the applicable permits, laws and regulations. The CONTRACTOR shall address each element of Environmental Protection described in Section 6.1. The CONTRACTOR also 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.

13.1.3 Procedures to be implemented by the CONTRACTOR to assure compliance with protection of water, fish and wildlife resources requirements of Section 6.2, and to comply with the applicable permits, laws and regulations. The CONTRACTOR shall address each element of Protection of Water, Fish and Wildlife described in Section 6.2. The CONTRACTOR also 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.

13.1.4 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.

13.1.5 Drawings showing locations of any proposed temporary excavations or embankments for haul roads, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials.

13.1.6 Environmental monitoring plans for the jobsite, including land, water, air and noise monitoring.

13.1.7 Turbidity Control plan which describes measures to be taken by the CONTRACTOR to avoid the discharge of turbid, silt-laden, water from the project area sufficient to ensure that water bodies, wildlife, and fisheries resources including commercial fisheries resources will not be damaged. The CONTRACTOR must provide a Turbidity Control Plan detailing means and methods for any discharge of water outside the project footprint. The plan must contain methods to limit turbidity and sedimentation in open water. Turbidity curtains shall be used at all outflow areas.

13.1.8 Oil spill prevention.

13.1.9 Oil spill contingency plan.

13.1.10 A protection plan for threatened and/or endangered species within the project area

13.1.11 A plan to implement the requirements of **Section 7, PROTECTION OF HIGHLY MIGRATORY AND OTHER PROTECTED BIRDS**. The plan shall include information regarding 1) the measures the CONTRACTOR will take to discourage nesting of protected birds and 2) notification plan required under Section 7.

13.1.12 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.

13.1.13 The location of the solid disposal area.

13.1.14 A statement as to the person who will 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.

13.1.15 A statement acknowledging that the CONTRACTOR is responsible for environmental protection, including all of the CONTRACTOR'S personnel and subcontractors.

13.1.16 The Environmental Protection Plan will be dated and endorsed by the individual of top management in charge of the construction.

13.2 **Weekly Submittals:** The CONTRACTOR shall submit weekly reports in accordance with the requirement **Section 7, PROTECTION OF HIGHLY MIGRATORY AND OTHER PROTECTED BIRDS**

APPENDIX 1

PROJECT PERMIT APPLICATION

APPENDIX 2

WATER QUALITY MONITORING PROTOCOL

APPENDIX 2

WATER QUALITY MONITORING PROTOCOL

Parameter: Turbidity – Nephelometric Turbidity Units (NTUs)

Frequency: Twice daily

Background Reading: At least 1,500 feet from any discharge location and outside of any visible turbidity plume. Samples shall be collected from the surface and 1 meter from the bottom if water depth is 1.5 meters or greater. For water depths less than 1 meter only the surface sample is required.

Compliance Reading: No more than 1,000 feet from the discharge point within the densest portion of any visible turbidity plume. Samples shall be collected from the surface and 1 meter from the bottom if water depth is 1.5 meters or greater. For water depths less than 1 meter only the surface sample is required.

If turbidity readings at the compliance sites are greater than 29 NTUs above the associated background turbidity levels, construction activities shall cease immediately and not resume until corrective measures have been taken and turbidity has returned to acceptable levels

Reporting Requirements: Weekly summaries of all monitoring data shall be submitted to the GOVERNMENT. The reports shall include:

1. The data and time of sampling and analysis
2. Sample locations
3. Water depth
4. Weather conditions
5. Wind direction and velocity
6. Wave conditions
7. Tide stage and direction of flow
8. A statement by the individual responsible for sampling attesting to the compliance of the readings with the protocol and the accuracy of the measurements.