Mississippi Valley Division,
Regional Planning and Environment Division South

South Central Coast Louisiana

Hurricane Ike flooding in Delcambre, Louisiana 2008.

Appendix A-7 - Louisiana Coastal Resources Program Consistency Determination

June 2021

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C20190020, Coastal Zone Consistency

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Section 1
Introduction

The U.S. Army Corps of Engineers (USACE), Mississippi Valley Division, New Orleans District (CEMVN), is preparing a feasibility report with integrated environmental impact statement pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended, for the proposed *South Central Coast Louisiana Flood Risk Management Feasibility Study*, located in St. Martin, Iberia, and St. Mary Parishes, Louisiana. The study would determine if the work necessary to sustain 100-year level of hurricane storm damage risk reduction is technically feasible, environmentally acceptable, and economically justified. The non-Federal Sponsor (NFS) is the Louisiana Coastal Protection and Restoration Authority.

CEMVN prepared this Consistency Determination in accordance with the 1972 Coastal Zone Management Act, Section 307, 16 U.S.C. 1451 et. seq. requiring

> *"each federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with approved state management programs."*

CEMVN used the Louisiana Coastal Resources Program Coastal Use Guidelines in preparation of this Determination.

CEMVN first provided this Consistency Determination to the Louisiana Department of Natural Resources, Office of Coastal Management (OCM) on October 1, 2019. On November 25, 2019, the OCM provided comments on the CEMVN's Tentatively Selected Plan Consistency Determination (Enclosure 1). This current consistency determination addresses the updated plan based on public comment, and revised engineering and economic evaluations. The revised TSP is now referred to as the Recommended Plan (RP).

Section 2

Purpose and Need for the Proposed Action

The people, economy, environment, and cultural heritage of coastal areas in South Central Louisiana are at risk from reoccurring damages caused by hurricane storm surge flooding and riverine flooding. South Central Coast topography and low elevation, proximity to the Gulf of Mexico, subsiding lands, and rising seas, are all contributing factors causing coastal flooding, shoreline erosion and loss of wetland. These conditions would worsen without additional storm mitigative measures. Approximately 177,000 people reside within the study area (Figure A7:2-1). The Gulf Intracoastal Waterway (GIWW) transects the study area, with most population centers occurring north of the GIWW. The largest municipalities include: Breaux Bridge and St. Martinville in St. Martin Parish; New Iberia, Jeanerette, Delcambre, and Loreauville in Iberia Parish; Morgan City, Franklin, Patterson, Baldwin, and Berwick in St. Mary Parish; and the federally-recognized Tribal Nation of the Chitimacha whose reservation includes most of Charenton.

Commercial activities in the study area include those related to:

- The GIWW and Bayou Teche;
- The Port of Morgan City, Port of West St. Mary, and Port of Iberia;
- Keystone Lock and Dam, Berwick Lock, and Bayou Boeuf Lock;
- The Wax Lake Outlet and Pumping Station;
- Patterson Regional Airport;
- Major transportation corridors and evacuation routes (Hwy 90/future I-49 corridor); and
- Other activities associated with local bayous and waterways.

In addition to the adverse impacts resulting from repeated storm events such as Hurricanes Rita, Ike, and Gustav, this area is also vulnerable to coastal land loss and degradation, which increases risk to communities, habitat, and infrastructure.

Project construction in south central Louisiana would reduce flood risk in the area by increasing sustainability and resiliency to flood events for the affected communities. Without the project, affected communities would remain at risk for future flood affiliated impacts, including life safety and economic damage concerns.

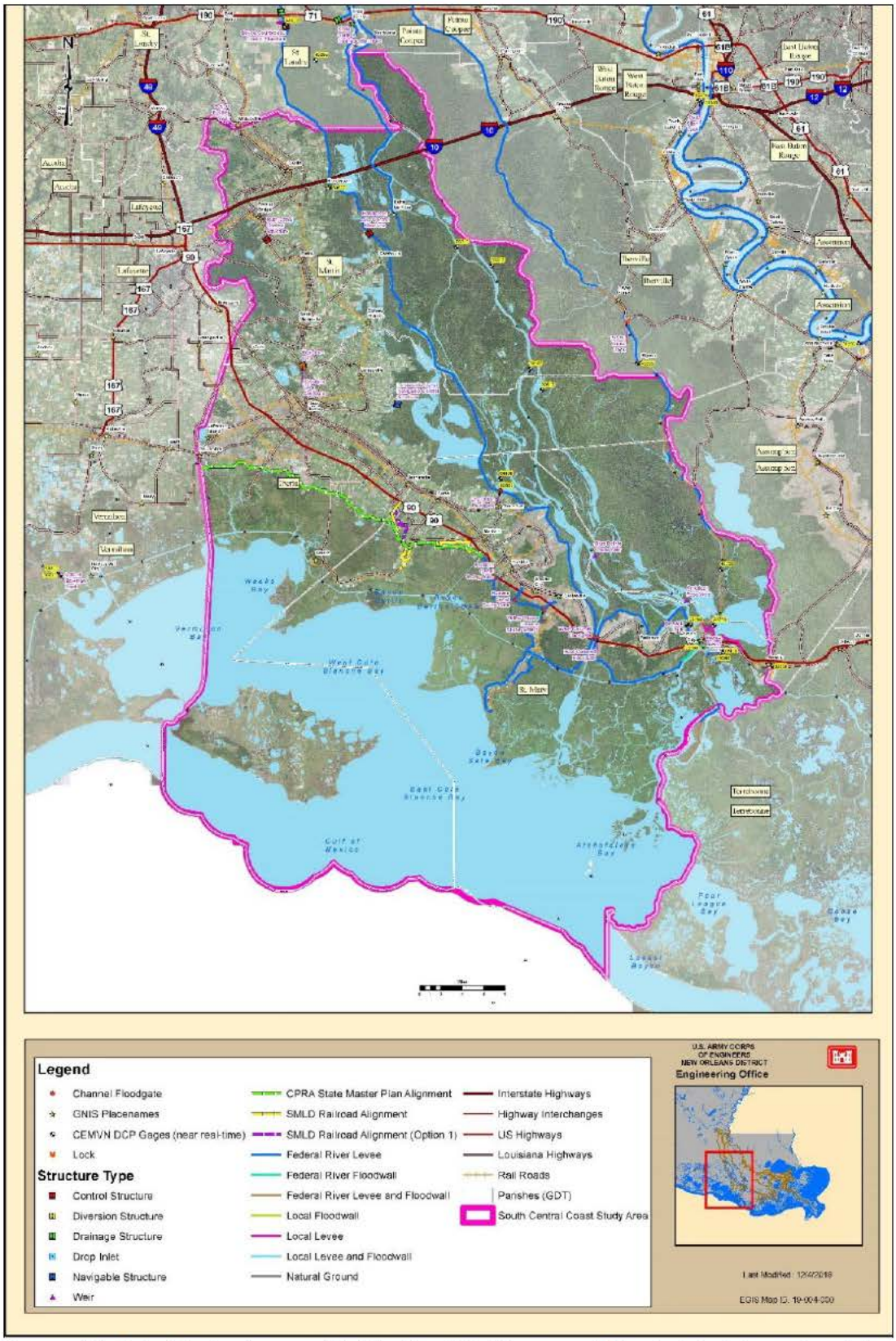

Figure A7:2-1. Study Area – St. Martin, St. Mary, and Iberia Parishes, Louisiana

Section 3
Project Description and Location

The CEMVN's RP addresses flood risk management problems and solutions and considers past, current, and future flood risk management and resilience planning initiatives.

Currently, the RP includes one measure—implementing nonstructural measures across the project area's 25-year floodplain. The project life is 50 years (2025-2075).

3.1 NONSTRUCTURAL FEATURES WITHIN THE 25-YEAR FLOODPLAIN

Nonstructural measures focus on reducing consequences of flooding instead of focusing on reducing the probability of flooding. Nonstructural measures include elevating (or raising) existing residential structures. This means elevating structures anticipated to have flood depths of 3 to 7 feet with additional wave impacts; additionally, evacuation planning is part of this measure (Figure A7:3-1).

At present, there are 2,240 eligible structures within the 25-year floodplain. This includes 1,790 residential structures, 233 commercial structures, 32 public buildings, and 185 industrial complexes and warehouses. The number of homes actually getting elevated depends on their eligibility and the owners voluntarily electing to raise their homes. Therefore, the CEMVN assumes the total number of homes participating in the project would be something lower than 1,790. Nonresidential structure numbers would also be something less than 100 percent participation.

- **Elevation of Eligible Residential Structures.** This measure requires lifting the entire structure or the habitable area to the predicted 2075, 100-year base flood elevation unless the required elevation is greater than a maximum of 13 feet above ground level (structures requiring elevation greater than 13 feet above ground level would be ineligible to participate due to engineering and risk related factors).
- **Dry Flood Proofing of Eligible Non-Residential Structures.** Dry floodproofing consists of sealing all areas below the hurricane storm surge risk reduction level of a structure to make it watertight and to ensure that floodwaters cannot get inside by making walls, doors, windows, and other openings resistant to water penetration. These structures include commercial and public buildings.
- **Wet Flood Proofing of Eligible Non-Residential Structures.** Wet floodproofing of warehouse structures up to 12 feet and the warehouse's contents up to 6 feet. This includes making warehouses water tolerant and lifting warehouse content using shelving and lifts. This does not include berm construction around the structures.

Figure A7:3-1. Nonstructural Plan - 25-Year Floodplain Aggregation
(Dots indicate where 25-year flood events occur.)

Section 4
Project Location

4.1 STUDY AREA

The South Central Louisiana study area encompasses 2,966 square miles of varying terrain in St. Martin, St. Mary, and Iberia Parishes (Figure A7:2-1). Most of the study area borders Vermillion and West Cote Blanche Bays located in the Gulf of Mexico. The study area has major thoroughfares and intersections, connecting a large portion of the southern part of Louisiana.

Structure modification would be on a case-by-case basis across the 1,646 square mile 25-year floodplain within the study area. The structures include homes, public infrastructure such as libraries, fire stations schools, etc., and nonresidential buildings. These structures are in developed and/or disturbed areas. Buildings are not eligible if the cost of elevating or flood proofing exceed the cost of the building.

The Louisiana Coastal Zone boundary is established in Louisiana Revised Statutes Article 49, §214.24. The southern boundary is the state 3-mile line offshore. The inland boundary through the study area is shown on Figure A7:13-1 at the end of this report. This boundary is scientific based using a wide variety of parameters, including but not limited to tidal influence, sheet flow, soils, salinity, vegetation, fish and wildlife, topography, geology, geography, economy and recreation. The inland boundary of the LA Coastal Zone was modified in the 2012 Regular Session of the Louisiana Legislature with the passage of House Bill 656 (Act 588) and became effective on June 7, 2012. The boundary changes are based on the recommendations of a science-based study conducted for and approved by the Coastal Protection and Restoration Authority (CPRA), in response to Senate Concurrent Resolution 60 of the 2009 Legislative Session.

4.2 ACTION AREA

For this project, the action area is the same as the study area. The CEMVN does not anticipate areas outside the study area would experience additional/less flooding or impacts to fish and wildlife resources migrating through the area or seasonally occupying the area.

The CEMVN does not anticipate a need for compensatory mitigation as a result of implementing the proposed project. Environmental Justice requires the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The nonstructural measures would not adversely impact minority or low-income populations and is fully compliant with Executive Order 12898.

Participation in the nonstructural measures is voluntary and would provide management of hurricane and storm surge flood risk for 2,240 impacted structures consisting of 1,790 eligible residential structures and 450 nonresidential structures.

Eligible structures would require additional structure specific analysis during the preconstruction engineering and design (PED) and construction phases to determine the best, most cost-effective measures to be employed for managing risk of hurricane storm surge risk. Consequently, each eligible structure would be inspected by a floodplain engineer, structural engineer, cost engineer, civil engineer, environmental specialist, real estate specialist, and experts from other disciplines, if necessary, to determine the type of nonstructural measure to be employed for each structure. The inspection of individual structures has not been performed at this stage of the study.

Flood proofing is generally described as any combination of structural and nonstructural additions, changes, or adjustments to structures, which reduce or eliminate the risk of hurricane and storm surge flood damage to real estate or improved real property, water, and sanitation facilities or structures with their contents. The most common flood proofing measures are elevating structures; removing at-risk structures from floodplains and floodways; detaching flood proofing around structures (non-earthen); implementing actions by local governments to strengthen local floodplain management regulations, building and zoning codes; and training and educating local floodplain management officials.

The nonstructural measures would consist of the following hurricane and storm surge flood risk management measures of which participation of eligible structures is voluntary:

- Elevation to the 100-year base flood elevation based on year 2075 hydrology of eligible residential structures. Tenants of structures that would be elevated are eligible for certain benefits in accordance with Uniform Relocation Assistance and Real Property Acquisition Policies for Federal and Federally Assisted Programs of 1970, Public Law 91-646, 84 Stat. 1894 (42 U.S.C. 4601), as amended by the Surface Transportation and Uniform Relocation Assistance Act of 1987, Title IV of Public Law 100-17, 101 Stat. 246-256; 49 Code of Federal Regulations 24; and HUD Handbook 1378.
- Dry flood proofing to the Base Flood Elevation (BFE) generally means the use of a variety of techniques making a structure waterproof and substantially impenetrable to floodwaters. For example, the walls, doors, windows, and other openings of eligible non-residential structures are made impermeable to water penetration.
- Wet flood proofing generally means allowing water to inundate a warehouse to equalize hydrostatic pressure, raise exiting utilities, apply epoxy or resin to the inside of the warehouse up to 12 feet, and protect contents up to 6 feet. Elevating the contents may include using elevators, cranes, lifts and shelving units to raise items above storm surge flooding.

Hurricane and storm surge flood risk management actions taken to comply with Section 402 of the Water Resources Development Act (WRDA) of 1986, as amended (33 U.S.C. 701b-12) would be the obligation of the NFS, which would work to ensure development, compliance, and enforcement by municipal and parish governments in St Mary, St. Martin, and Iberia Parishes with local floodplain management plans and regulations, adoption of more stringent local floodplain regulations, adoption of more restrictive parish and municipal building codes, land use and zoning regulations, and other developmental controls. The NFS

shall prevent obstructions or encroachments on the property being flood proofed (including prescribing and enforcing regulations to prevent such obstructions or encroachments) such as the addition of facilities which might reduce the level of protection the nonstructural measures affords, hinder operation and maintenance of the nonstructural measures, or interfere with the nonstructural measure's proper function.

Although the National Flood Insurance Program (NFIP) provides some relief for historic structures from having to comply with floodplain management requirements, the NFIP and FEMA recognizes historic structures should participate in mitigation measures that can reduce the impacts of flood damages. Under the NFIP regulations and the floodplain regulations of some of the communities in the study area, a historic structure is not eligible for elevation if the elevation or alteration through flood proofing methods would preclude the structure's continued designation as an "historic structure" or would be damaging to the historical character or value of the structure as determined by the Louisiana State Historic Preservation Office.

The scale of the Project is highly dependent upon the number of structures actually receiving nonstructural measures and the amount of funding allocated in any given year. The combined effects of the Biggert-Waters Insurance Reform Act, the modified conditions imposed by the Homeowner Flood Insurance Affordability Act, and the likelihood of property transfers provide an incentive for property owners to have their structures flood proofed. In addition, the clear and present risk of future storm events, and subsequent disaster declarations and relief funding, indicate potential situations for advantageously incentivizing and accelerating implementation. Awareness of and education about these issues would help lead to successful Project implementation and would help ensure a successful nonstructural Plan that meets the SWC study goals.

No nonstructural activities would be conducted in wetlands. This includes work areas, access routes, staging areas, and borrow and discharge locations. Wetlands would be defined by a USACE wetland delineation, or as identified on Louisiana Department of Natural Resources (LDNR) SONRIS Geographic Information System, or other suitable source. If wetlands would be impacted by nonstructural construction, the structure would no longer be eligible for nonstructural measures. Work would be done on previously disturbed residential and commercial lands and would not impact waters of the USA (which includes wetlands).

The proposed project would not significantly alter the local hydrology. Part of the definition of a nonstructural measure is that it reduces human exposure to a flood hazard without altering the nature or extent of that hazard. Nonstructural measures are tightly confined to the flood proofed structure and they would not impact local hydrology.

Any individual nonstructural action(s) not meeting these criteria would require pre-construction coordination with the LDNR Office of Coastal Management and may require an individual consistency determination or other authorization.

4.3 DETAILS OF THE PROPOSED NONSTRUCTURAL MEASURES

These process shall apply to willing property owners determined by the NFS to be preliminarily eligible to have their residential structures elevated:

- Property owners must execute an authorization for entry, which would grant the CEMVN and the NFS authorization to enter in and upon the structure and land for purposes of investigating, inspecting, surveying, performing limited environmental testing and a hazardous, toxic, and radioactive waste (HTRW) assessment, evaluating the condition of the structure, determining elevation requirements, verifying the current elevation, performing an appraisal, and conducting other activities necessary for the CEMVN to make a determination of structure eligibility;
- The property owner must submit satisfactory proof of ownership and a current Elevation Certificate;
- Title research and appraisals would be completed by the NFS. The property must have clear title. The property owner would be responsible to clear the title of all ownership issues and obtain any necessary subordination agreements from holders of liens, encumbrances, or third party interests at the property owner's sole expense; the failure to provide clear title shall result in a determination of ineligibility;
- An ASTM Phase I Environmental Site Assessment (ESA) and Asbestos investigation (and if warranted, additional HTRW investigations and a Phase II, ESA), inspections, surveys and boundary monumentations will be completed. An ESA Report shall be prepared and shall include an HTRW and asbestos certification. The Report shall state whether the property is "clean" and cleared to proceed with the elevation process; or shall identify miscellaneous debris (i.e. appliances, junk vehicles and parts, general debris, etc.) that must be cleaned up or removed from the property; or shall identify that there is the potential for HTRW on the property and state that a Phase II ESA is required for further evaluation. The property owner shall be notified in writing of the results of the Phase I ESA. If the Phase I ESA indicates the potential presence of HTRW on the property, the property owner shall be notified in writing that the property has been identified for potentially HTRW. The notice shall also request the property owner to execute a separate right-of-entry for the HTRW investigations and the performance of a Phase II ESA. In addition, the notice shall advise the property owner that if contamination is found, the property owner be responsible for all costs of clean-up under state and Federal laws (regardless of whether the property owner participates in the project), and that if the property owner refuses to provide the additional right-of-entry for the Phase II ESA, the property owner will be removed from the project. The property owner shall be notified in writing of the results of the Phase II ESA. If the Phase II ESA identifies contamination, the property owner will be notified in writing of the remediation that is required to be performed, at the owners cost and expense, that the work must be performed by a licensed HTRW remediation professional and that documentation from a third party licensed HTRW remediation profession must be provided to the Government with sufficient

evidence to support that the contamination has been successful and properly remediated is required before a final determination on eligibility can be made;

- After all inspections, investigations, assessments, and other activities are completed, a determination of eligibility for elevation would be made by the CEMVN;
- A Flood Proofing Agreement[1] containing an easement(s) in favor of the NFS that authorizes the Government, the NFS or their contractors to enter the property for purposes of implementing the flood proofing action and for inspection and enforcement purposes, an agreement to hold harmless the NFS and the Government for any damages arising from the flood proofing work, and a covenant running with the land shall be executed by all owners of the property. The covenant shall prohibit the conversion of any part of the structure located below the lowest habitable finished floor for human habitation and the alteration of the structure in any way to impede the movement of flood waters under the structure, as well as prohibiting the construction of any other structure in a manner that would impede the movement of floodwaters under the structure. The Flood Proofing Agreement, easement(s), and covenant running with the land, as well as any required subordination agreements, shall be recorded by the NFS in the public records of the Parish in which the property is located;
- After the Flood Proofing Agreement, easement, covenant and any required subordination agreements are recorded in the public records, the elevation of the structure would be commenced, completed, inspected, and after final approval by the District Engineer, a notice of construction completion would be issued to the NFS and the individual elevation project would be closed out as complete.

4.3.1 Elevation of Eligible Residential Structures

Elevation of eligible residential structures would be performed "in place." The habitable floors would be raised to levels which would reduce risk to the residential structures from hurricane

[1] The details the Flood Proofing Agreement will be finalized during the Project's final design phase. The terms and details of the agreement between the owner and the NFS will be refined, and the Flood Proofing Agreement will be submitted as a Request for Approval of a Non Standard Estate to CEHQ-RE." Additional details can be found in Appendix K, *Nonstructural Implementation Plan.*

and storm surge flooding to reduce future losses by allowing the free movement of floodwaters beneath and around the raised structures. State and local building and zoning codes must be taken into consideration in the implementation process. Some zoning codes contain restrictions on "substantial improvements" to existing non-confirming structures which require the entire structure be brought up to current building code requirements which may increase the costs beyond that of the elevation costs alone. In addition, zoning codes may have height restrictions for buildings in residential areas affecting the ability of certain structures to be raised without obtaining a variance or other form of relief from the zoning code. Other eligibility considerations may include whether the structure is eligible for participation in another state, local, or Federal elevation program to avoid redundancy.

4.3.2 Dry Flood Proofing of Eligible Non-Residential Structures

Dry flood proofing consists of sealing all areas below the hurricane and storm surge flood risk management level of a structure to make it watertight and ensure that floodwaters cannot get inside by making walls, doors, windows and other openings impermeable to water penetration. Based on NFIP testing conducted at the Engineering Research and Development Center, dry flood proofing can generally only be performed on the walls and portions of a conventionally built structure from the ground level to up to 3 feet. Walls are coated with sealants, waterproofing compounds, or plastic sheeting is placed around the walls and covered, and back-flow from water and sewer lines prevention mechanisms such as drain plugs, standpipes, grinder pumps and back-up valves are installed. Openings, such as doors, windows, sewer lines and vents, may also be closed temporarily, with sandbags or removable closures, or permanently. Dry flood proofing achieves hurricane and storm surge flood risk management but it is not recognized by the NFIP for any flood insurance premium rate reduction when applied to residential structures, and may not be used under the NFIP for new or substantially damaged buildings located in a Special Flood Hazard Area. A structural analysis of the wall strength is required to achieve higher level of risk reduction. Closure panels may be used at openings. This measure is viable for appropriate structures if design hurricane and storm surge flood depths are generally less than 3 feet, and hydrodynamic forces would also be a consideration. For structures with crawlspaces, the only effective way to dry flood proof is to make the first floor impermeable to the passage of floodwater. Some common flood proofing measures include:

- backflow valves;
- closures on doors, windows, stairwells and vents--they may be temporary or permanent;
- rearranging or protecting damageable property--e.g., relocate or raise utilities;
- sump pumps and sub-drains; and
- water resistant material; metal windows, doors and jambs; waterproof adhesives; sealants and floor drains.

These process would apply to non-residential property owners who are willing and determined by the NFS to be preliminarily eligible to have their structures dry flood proofed:

- Property owners who wish to have their structure dry flood proofed must execute an authorization for entry using a form provided by the NFS which would grant USACE and the NFS authorization to enter in and upon the structure and land for purposes of investigating, inspecting, surveying, performing limited environmental testing and a HTRW assessment, evaluating the condition of the structure, determining flood proofing requirements, verifying the current elevation, performing an appraisal, and conducting other activities necessary to make for USACE to make a determination of structure eligibility;
- The property owner must submit satisfactory proof of ownership and a current Elevation Certificate;
- Title research and appraisals would be completed by the NFS. The property must have a clear title. The property owner would be responsible to clear the title of all ownership issues and obtain any necessary subordination agreements from holders of liens, encumbrances, or third party interests at the property owner's sole expense; the failure to provide clear title shall result in a determination of ineligibility;
- An ASTM Phase I ESA and Asbestos investigation (and if warranted, additional HTRW investigations and a Phase II, ESA), inspections, surveys and boundary monumentations will be completed. An ESA Report shall be prepared and shall include an HTRW and asbestos certification. The Report shall state whether the property is "clean" and cleared to proceed with the dry flood proofing process; or shall identify miscellaneous debris (i.e. appliances, junk vehicles and parts, general debris, etc.) that must be cleaned up or removed from the property; or shall identify that there is the potential for HTRW on the property and state that a Phase II ESA is required for further evaluation. The property owner shall be notified in writing of the results of the Phase I ESA. If the Phase I ESA indicates the potential presence of HTRW on the property, the property owner shall be notified in writing that the property has been identified for potentially HTRW. The notice shall also request the property owner to execute a separate right-of-entry for the HTRW investigations and the performance of a Phase II ESA. In addition, the notice shall advise the property owner that if contamination is found, the property owner be responsible for all costs of clean-up under state and federal laws (regardless of whether the property owner participates in the Project), and that if the property owner refuses to provide the additional right-of-entry for the Phase II ESA, the property owner will be removed from the Project. The property owner shall be notified in writing of the results of the Phase II ESA. If the Phase II ESA identifies contamination, the property owner will be notified in writing of the remediation that is required by a licensed professional and that documentation that the contamination has been successfully and properly remediated is required before a final determination on eligibility can be made.
- After all inspections, investigations, assessments, and other activities are completed, the CEMVN would issue a determination of eligibility for dry flood proofing;
- All property owners shall execute a Flood Proofing Agreement containing an easement(s) in favor of the NFS, authorizing the Government, the NFS, or their

contractors to enter the property for purposes of implementing the flood proofing action and for inspection and enforcement purposes, includes an agreement to hold harmless the NFS and the Government for any damages arising from the flood proofing work, and a covenant running with the land prohibiting the removal or alteration of the flood proofing measures or the construction of additions to the existing structure or new structures not flood proofed in accordance with the Project purpose. The Flood Proofing Agreement, together with the easement(s) and covenant running with the land, as well as any required subordination agreements, shall be recorded by the NFS in the public records of the parish in which the property is located;

- Each structure dry flood proofed must have an approved sanitary disposal system and be in compliance with local and state health and building codes;
- After the Flood Proofing Agreement together with the easement and covenant and any required subordination agreements are recorded in the public records, the dry flood proofing work would be commenced, completed, inspected, and after final approval by the District Engineer, a notice of construction completion would be issued by to the NFS and the individual dry flood proofing project would be closed out as complete.

4.3.3 Wet Flood Proofing of Eligible Non-Residential Structures

Wet flood proofing prevents or provides resistance to damage from flooding while allowing floodwaters to enter the structure or area and equalize pressures on foundation walls or lower-level walls. A key feature associated with wet flood proofing are openings to allowing floodwaters in, consisting of engineered flood vents in the structure walls. Per FEM TB, 7-93:

> *Flooding of a structure's interior is intended to counteract hydrostatic pressure on the walls, surfaces, and supports of the structure by equalizing interior and exterior water levels during a flood. Inundation also reduces the danger of buoyancy from hydrostatic uplift forces. Such measures may require alteration of a structure's design and construction, use of flood-resistant materials, adjustment of building operation and maintenance procedure, relocation and treatment of equipment and contents, and emergency preparedness for actions that require human intervention.*

For the purposes of this project, warehouse contents will be protected by wet floodproofing up to 6 feet and warehouse structures up to 12 feet during storm surge flooding to reduce future losses from the likelihood of the 250-Year Flood Event to the extent practicable.

Wet floodproofing achieves hurricane and storm surge flood damage risk reduction, but it is not recognized by the NFIP for any flood insurance premium rate reduction and may not be used under the NFIP for new or substantially damaged buildings located in a Special Flood Hazard Area. Wet floodproofing of warehouse structures must be performed in accordance with FEMA TB 1-93, Openings in Foundation Walls for Buildings Located in Special Flood Hazard Areas, and FEMA 259, Engineering Principles and Practices for Retrofitting Flood Prone Residential Buildings, FEMA 348. Protecting Building Utilities from Flood Damage,

and the requirements pertaining to floodproofing of structures found in 44 C.F.R. §§ 60.3(b)(5) and (c)(4). Some common wet floodproofing measures include:

- Engineered flood vents: top be used to allow floodwaters inside the structure, installation of vents may also include flood-resistant construction materials such as: rigid foam wall insulation, hardy dry board, elevation of electric outlets, chair rail molding, vinyl cove base, concrete floor treatment, and interior wall and floor sealer/stain
- Crane(s): To be used to elevate portable equipment that will not be evacuated for a storm/flood
- Storage racks: For elevation of equipment and inventory to prevent flood damages
- Exterior paint coatings: Sand/water blast to remove old weak coatings and rust and application of epoxy coatings
- Electrical relocations: elevation of mechanical and electrical equipment
- Office relocations: Relocation of first floor offices inside warehouses to modular steel structures (similar to a mobile home) elevated outside of the warehouse structure.

Application and approval process. The following is a general description of the process that will apply to willing owners of structures that are preliminarily eligible for wet flood proofing:

- Warehouse structures that have an FFE at or below the 0-25-year storm surge floodplain, based on hydrologic conditions predicted to occur in 2025 (the beginning of the 50-year period of analysis) are eligible for wet floodproofing measures. Eligible property owners, who wish to participate in the wet flood-proofing aspect of the Project, must complete and submit an application, which will include a temporary right-of-entry to USACE and the NFS to enter upon the property to conduct investigations to determine final eligibility of the property for inclusion in the Project. A property owner may withdraw the application at any time prior to the execution of a Flood Proofing Agreement by the property owner and USACE and/or the NFS. Incomplete applications or applications which contain false or misleading information or substantial errors will not be processed;

- As part of the application, the property owners must execute an authorization for entry which will grant USACE and the NFS authorization to enter in and upon the structure and land for purposes of investigating, inspecting, surveying, performing limited environmental testing and site assessments, evaluating the condition of the structure, determining wet flood proofing , verifying the current elevation, performing an appraisal, and conducting other activities necessary for USACE to make a determination of structure eligibility;

- The property owner must submit satisfactory proof of ownership. Proof of ownership shall require a Certificate of Title and a Certificate of Mortgage that identifies the names of all of the owners of the property, as well as any third party interest holders and any holders of a lien or encumbrance against the property. Additionally, the property owner shall provide written verification from the tax

assessor that no taxes are due and payable on the property, as well as documentation from any holder of a mortgage, lien, or encumbrance, that the mortgage, lien, or encumbrance is in good standing or has been satisfied and released;

- Title research and appraisals will be completed by the NFS to confirm fee ownership and identify all lienholders. The property must have clear title. The property owner will be responsible to clear the title of all ownership issues and obtain any necessary subordination agreements from holders of liens, encumbrances, or third party interests at the property owner's sole expense; the failure to provide clear title shall result in a determination of ineligibility;

- An ASTM Phase I ESA and Asbestos investigation (and if warranted, additional HTRW investigations and a Phase II, ESA), inspections, surveys and boundary monumentations will be completed. An ESA Report shall be prepared and shall include an HTRW and asbestos certification. The Report shall state whether the property is "clean" and cleared to proceed with the wet flood proofing process; or shall identify miscellaneous debris (i.e. appliances, junk vehicles and parts, general debris, etc.) that must be cleaned up or removed from the property; or shall identify that there is the potential for HTRW on the property and state that a Phase II ESA is required for further evaluation. The property owner shall be notified in writing of the results of the Phase I ESA. If the Phase I ESA indicates the potential presence of HTRW on the property, the property owner shall be notified in writing that the property has been identified for potentially HTRW. The notice shall also request the property owner to execute a separate right-of-entry for the HTRW investigations and the performance of a Phase II ESA. In addition, the notice shall advise the property owner that if contamination is found, the property owner be responsible for all costs of clean-up under state and federal laws (regardless of whether the property owner participates in the Project), and that if the property owner refuses to provide the additional right-of-entry for the Phase II ESA, the property owner will be removed from the Project. The property owner shall be notified in writing of the results of the Phase II ESA. If the Phase II ESA identifies contamination, the property owner will be notified in writing of the remediation that is required by a licensed professional and that documentation that the contamination has been successfully and properly remediated is required before a final determination on eligibility can be made.

- Research and appraisals will be completed by the NFS. The property must have clear title. The property owner will be responsible to clear the title of all ownership issues and obtain any necessary subordination agreements from holders of liens, encumbrances, or third party interests at the property owner's sole expense; the failure to provide clear title shall result in a determination of ineligibility;

- A determination that a structure is qualified for wet flood proofing will be made after all inspections, investigations, assessments, title research, and all other work

required to determine eligibility for wet flood proofing is complete and prior to the development of the scope of work;

- A Flood Proofing Agreement containing a "Covenant Running with the Land" in favor of the NFS shall be executed by the property owner and USACE and/or NFS. The Agreement will authorize the USACE, the NFS, or their contractors to enter the property for purposes of implementing the flood proofing action and for inspection and enforcement purposes, an agreement to hold harmless the NFS and USACE for any damages arising from the flood-proofing work, and a covenant running with the land shall be executed by all owners of the property. The Flood Proofing Agreement, together with the easement(s) and covenant running with the land, as well as any required subordination agreements, shall be recorded by the NFS in the public records of the Parish in which the property is located. Each structure that is wet flood proofed must have an approved sanitary disposal system and be in compliance with local and state health and building codes;

- After the Flood Proofing Agreement together with the easement and covenant and any required subordination agreements are recorded in the public records, the wet flood proofing work will be commenced, completed, inspected, and after final approval by the District Engineer, a notice of construction completion will be issued by to the NFS and the individual wet flood-proofing project will be closed out as complete.

4.3.4 Hurricane Storm Surge Damage Risk Reduction Actions to be taken by the NFS in St. Mary, St. Martin, and Iberia Parishes

Hurricane and storm surge flood risk management actions taken to comply with Section 402 of the WRDA of 1986, as amended (33 U.S.C. 701b-12) would be the obligation of the NFS, who would ensure development, compliance, and enforcement by municipal and Parish governments in St. Mary. St. Martin, and Iberia, Parishes with local floodplain management plans and regulations, adoption of more stringent local floodplain regulations, adoption of more restrictive parish and municipal building codes, land use and zoning regulations, and other developmental controls. The NFS obligations in this regard include:

- informing affected interests of the extent of protection afforded by the nonstructural measures at least once each year;

- participating in and comply with applicable Federal floodplain management and flood insurance programs;

- complying with Section 402 of the WRDA of 1986, as amended (33 U.S.C. 701b-12), requiring a non-Federal interest to prepare a floodplain management plan within 1 year after the date of signing the Project Partnership Agreement, and to implement such plan no later than 1 year after completion of construction of the nonstructural measures, or functional elements of the nonstructural measures. The plan shall be designed to reduce the impacts of future hurricane and storm

surge flood events in the project area, including but not limited to, addressing those measures to be undertaken by non-Federal interests to preserve the level of hurricane storm surge risk reduction provided by the nonstructural measures. The NFS would provide an information copy of the plan to the Government upon its preparation;

- publicizing floodplain information in the area concerned and would provide this information to zoning and other regulatory agencies for their use in adopting regulations, or taking other actions, to prevent unwise future development and to ensure compatibility with hurricane and storm surge flood risk reduction levels provided by the nonstructural measures; and,

- preventing obstructions or encroachments on the properties having been flood proofed (including prescribing and enforcing regulations to prevent such obstructions or encroachments) or the addition of facilities which might reduce the level of protection the nonstructural measures affords, hinder operation and maintenance of the nonstructural measures, or interfere with the nonstructural measure's proper function.

4.4 RESIDENTIAL STRUCTURE ELEVATION CRITERIA

Property owners who wish to have their residential structure elevated must currently own both the structure and the land on which the structure is located. Proof of ownership shall require a Certificate of Title and a Certificate of Mortgage identifying the names of all of the owners of the property, as well as any third party interest holders and any holders of a lien or encumbrance against the property. Additionally, the property owner shall provide written verification from the tax assessor that no taxes are due and payable on the property, as well as documentation from any holder of a mortgage, lien, or encumbrance that the mortgage, lien, or encumbrance is in good standing or has been satisfied and released.

Residential structures eligible for elevation must meet the following eligibility criteria:

1. The structure is in a condition suitable for human habitation.
2. The property has a clear title.
3. The property is not located in a Regulatory Floodway or on Federal leased land.
4. The structure can be elevated to meet the required BFE so the habitable floors are raised to levels which would protect the residential structures from storm surge flooding to reduce future losses from the likelihood of the 100-year Flood Event to the extent practicable. However, in no event would a structure be raised greater than 13 feet above the ground level.
5. The structure and land are not contaminated with HTRW or materials.
6. Based on a visual assessment, the structure does not have signs of actual or potential significant structural defects, distress, or failure (i.e., no evidence of corrosion of steel framing or concrete; no water or insect damage to wood framing; no framing that is in obvious need of repair or replacement, no

settlement, cracking, buckling, or collapse of the foundation; no damage to load bearing or masonry walls; no damage to veneer or siding, no evidence of unrepaired roof leaks, etc.).
7. The property is located in a community participating in the NFIP and the property owner has a current Elevation Certificate.
8. The structure complies with the building code and floodplain management codes under which the structure was originally permitted.
9. There are no special considerations or unique circumstances prohibiting elevation.

Property owners must meet the following criteria:

1. The property owner is willing to enter into a Flood Proofing Agreement and execute the required easements and restrictive covenant running with the land.
2. The property owner does not owe taxes or other debts to any state or local governmental entity or to the Federal government.
3. The property owner has not previously received any disaster assistance for the elevation of the structure.
4. The property owner is willing to expend any costs necessary in connection with the elevation of the structure which are not eligible costs.
5. The property owner agrees to insure the elevated home to an amount at least equal to the maximum limit of coverage made available with respect to the particular property, whichever is less, through the NFIP as long as the property owner holds title to the property.
6. The property owner, and all successors in title to the property owner, agree to record notice to subsequent purchasers and lien holders in the appropriate jurisdiction's land records that includes the name of the current property owner (including book/page reference to record of current title, if readily available), a legal description of the property, and the following statement of flood insurance requirements:

This property has received Federal elevation assistance. Federal law requires flood insurance coverage on this property must be maintained during the life of the property regardless of transfer of ownership of such property. Pursuant to 42 U.S.C. §5154a, failure to maintain flood insurance on this property may prohibit the owner from receiving federal disaster assistance with respect to this property in the event of a flood disaster. The property owner is also required to maintain this property in accordance with the flood plain management criteria of Title 44 of the Code of Federal Regulations Part 60.3 and the floodplain management regulations adopted by the community within which this property is located.

Failure to abide by the above conditions may prohibit the property owner and/or any subsequent purchasers from receiving Federal disaster assistance with respect to the property in the event of any future flood disasters. Residential structures designated as a "Severe Repetitive Loss" property in accordance with FEMA criteria are eligible for elevation.

If a property owner and/or the property owner's family member who is an occupant of the structure is physically disabled or has mobility impairments, such as in the case of elderly homeowners, a physician actively licensed by the State of Louisiana and in good standing must provide a written medical opinion and confirmation that special handicapped access is required before any means of special access may be included in the elevation. Multiple special access points are eligible for funding where necessary to meet state or local building code compliance. Where ramps are used to provide access, the ramps will be designed to meet Federal standards for slope and width. Where ramps are not technically feasible, a mechanical chairlift may be installed. Special access features are subject to state and local building and other applicable codes.

Tenants who reside in structures being elevated may be eligible for certain benefits in accordance with Uniform Relocation Assistance and Real Property Acquisition Policies for Federal and Federally Assisted Programs of 1970, Public Law 91-646, 84 Stat. 1894 (42 U.S.C. 4601), as amended by the Surface Transportation and Uniform Relocation Assistance Act of 1987, Title IV of Public Law 100-17, 101 Stat. 246-256; 49 Code of Federal Regulations 24; and HUD Handbook 1378 (collectively referred to as the URA). The URA provides for different replacement housing payments based on a displaced person's occupancy status and length of occupancy. Temporary relocation should not extend beyond one year before the person is returned to his or her previous unit or location. Any residential tenant who has been temporarily relocated for more than one year must be offered all permanent relocation assistance that may not be reduced by the amount of any temporary relocation assistance previously provided. Each property owner would receive reasonable advance written notice of the:

- Date and approximate duration of the temporary relocation;
- Address of the suitable decent, safe, and sanitary dwelling to be made available for the temporary period;
- Terms and conditions under which the tenant may lease and occupy a suitable decent, safe and sanitary dwelling in the building/complex upon completion of the project;
- Provisions of reimbursement for all reasonable out of pocket expenses incurred in connection with the temporary relocation;
- In addition to relocation advisory services, residential displaced persons may be eligible for other relocation assistance including relocation payments for moving expenses and replacement housing payments for the increased costs of renting or purchasing a comparable replacement dwelling; and
- All temporary housing costs must be approved in advance in writing by the NFS.

4.5 NONSTRUCTURAL MEASURES IMPLEMENTATION – TRADITIONAL METHOD

The "traditional method" of implementation is generally described in publications of the USACE National Flood Proofing Committee and Flood Risk Management Planning Center of Expertise. Under the traditional method, the CEMVN utilizes a Federal procurement to obtain design and construction contractors for the various flood proofing measures. The property owner enters into a Flood Proofing Agreement, which contains an easement for

inspection and enforcement and a restrictive covenant running with the land in favor of the NFS and/or USACE. The CEMVN would prepare the Agreement (and easement and covenant) during PED and submitted to the CEMVN and USACE for review and approval. The Agreement would identify among other things, a "not-to-exceed" dollar amount, the Government contractor performing the flood proofing work, restrictions on the future development and alteration of the structure after the flood proofing work is completed, and requirements for compliance with local flood management regulations and/or the NFIP. The Agreement would require the property owners and their heirs and assigns, to covenant, warrant, and agree to forever release, discharge, indemnify, defend, and hold and save harmless the CEMVN and the NFS (and their contractors) from and against any liability or any claim of any kind or nature whatsoever which might arise out of the work performed on the structure in connection with the Project, and any damages or injuries resulting either directly or indirectly from any elevation work and/or any flooding of the land or of the structure. In addition, the Agreement would authorize right of entry to the property and the structure by the NFS and the CEMVN for the elevation work.

The Agreement and the "Residential Structure Elevation Covenant Running With The Land" shall prohibit future alteration or new construction for human habitation on the property at an elevation lower than the predicted 2075 100-year BFE and shall contain the following restrictions: (a) upon completion of the elevation work, no part of the structure located below the level of the lowest habitable finished floor would thereafter be converted to living area for human habitation, or otherwise altered in any manner impeding the movement of waters beneath the structure; (b) the area below the predicted 2075 100-year BFE will be used solely for the parking of vehicles, limited storage, or access to the structure and would never be used for human habitation; (c) mechanical, electrical or plumbing devices shall not be installed below the BFE. These restrictions and the following statement must be specifically included in every deed and instrument conveying or purporting to convey title to or any interest in the land or structures thereon which is executed subsequent to the execution of the covenant:

> *This property has received Federal elevation assistance. Federal law requires flood insurance coverage on this property must be maintained during the life of the property regardless of transfer of ownership of such property. Pursuant to 42 U.S.C. §5154a, failure to maintain flood insurance on this property may prohibit the owner from receiving Federal disaster assistance with respect to this property in the event of a flood disaster. The property owner is required to maintain this property in accordance with the flood plain management criteria of Title 44 of the Code of Federal Regulations Part 60.3 and the floodplain management regulations adopted by the community within which this property is located.*

The executed Agreement would be recorded with an elevation certificate in the public records of the jurisdiction where the property is located.

The Government would procure contracts allowing a contractor to perform flood proofing work on multiple structures through a series of one or more task orders and who would be responsible for all work associated with the elevation from approval of the elevation plans for

each structure to final inspection. A notice of construction completion would be provided at the appropriate time for each flood proofed structure through an official letter from the District Engineer to the NFS. The NFS would maintain a copy of recorded elevation certificate and a certified copy of the original recorded Flood Proofing Agreement. The final inspection checklist shall be signed by the local floodplain administrator/coordinator. Upon completion of the flood proofing of each structure, a Notice of Construction Completion is issued by the CEMVN to the NFS, and the NFS is responsible for ensuring and maintaining compliance with any enforceable restrictions for the structure and property. The property owner is required to operate and maintain the integrity of their specific nonstructural measures.

A Certificate of Occupancy must be issued by a qualified building official to certifying the construction was properly completed. When the elevation work is completed, all structures must be covered by flood insurance in an amount at least equal to the costs of the flood proofing work or to the maximum limit of coverage made available with respect to the property, whichever is less. Upon completion of the elevation, the property owner must provide the CEMVN with an NFIP Elevation Certificate prepared by a professional land surveyor and verifying that the structure has been elevated to the required elevation and any elevation certificates showing the elevation level before the structure was elevated.

4.6 ELIGIBLE ELEVATION COSTS

Property inspections would be conducted for eligible properties whose property owners have submitted the required proof of ownership and Elevation Certificate. The inspection does not guarantee acceptance of the structure for elevation. A determination a structure is qualified for elevation would be made after all inspections, investigations, assessments, title research and all other work required to determine eligibility for elevations is complete and prior to the development of the elevation scope of work. If additional work is required as a condition of building permit issuance, and if such work is not listed as eligible above, the property owner would be required to provide funds equal to the amount of the cost to complete the required work. In no event shall the structure be elevated, if it is formally determined the structure is not physically sound and capable of being raised safely.

Structure elevation work-eligible costs will include actual costs (itemized costs for each task) including but not limited to design costs, costs of obtaining all required permits (zoning or land use approvals, environmental permits or required certifications, historic preservation approvals, and building permits), and costs of title searches, surveys, appraisal fees, Louisiana state sales tax, and costs for:

- raising the structure;
- raising the roof and extending the walls of a side structure attached to the main structure (i.e., garage);
- raising mechanical equipment (i.e., air conditioner, furnace, water heater, electrical panel, fuel storage, valves, or meters);
- connecting, disconnecting, and extending utility connections for electrical power, fuel, incoming potable water, wastewater discharge;

- meeting access requirements of applicable building codes (i.e., stairs with landings, guardrails);
- creating large vent openings in the foundation and walls to meet requirements for flood water entry and exit;
- completing an Elevation Certificate to verify the as-built relationship between the lowest habitable finished floor and the Base Flood Elevation;
- only trees which restrict the demolition and reconstruction work on any structure may be removed;
- relocation assistance funds for displaced tenants are available to cover some expenses incurred during the actual raising of the structure for a period of no more than 90 days;
- debris removal (all demolition debris (hazardous and non-hazardous) shall be removed and taken to an approved landfill);
- site grading and site restoration including restoring landscaping to its preconstruction condition;
- temporary site protection measures such as temporary construction fencing.

4.7 INELIGIBLE COSTS

The costs associated with these tasks are ineligible:

- any work not strictly necessary for the safe completion of the structure elevation;
- any repair of existing deficiencies, including structural and system deficiencies;
- modifications or improvements to a septic system except for extension of lines from the raised structure to the existing system;
- cost for elevation of more than one foot above Base Flood Elevation;
- modifications to structures that are not attached to the structure;
- modifications to tubs, pools, spas, hot tubs, and related structures or accessories;
- modifications to decks and patios except for modifications that are expressly required by building codes (i.e., stairways and landing modifications);
- environmental site remediation costs are not eligible;
- costs to bring a non-conforming structure into compliance with current building code, housing code and/or other applicable codes;
- unless a satisfactory medical opinion if provided by a duly licensed physician that special access is required for a handicapped or mobility challenge property owner or the property owner's family member residing in the home, costs associated with special access improvements such as elevators, lifts, ramps, etc.;
- structures not considered the primary residence (i.e., detached garage, shed and/or barns); and
- if the elevation or alteration through flood proofing methods would preclude the structure's continued designation as an "historic structure" or would be damaging to the historical character or value of the structure as determined by the Louisiana State Historic Preservation Office.

4.8 METHODS FOR PRIORITIZING NONSTRUCTURAL ELEVATION WORK

Any implementation of a decision on scheduling or prioritization will be subject to the availability of Federal funds. Some of the methods for scheduling or prioritizing nonstructural elevation work that will be considered are as follows; however, additional methods of scheduling or prioritizing such work may be considered:

4.8.1 Clustering

If numerous property owners in a contiguous neighborhood or subdivision agree to participate, that particular area could be targeted for priority in structure elevation implementation. A focus on clustered properties can create a ranking hierarchy of which properties to address first. The size of a cluster would need to be defined but could consist of zip codes or neighborhoods. This approach would rank efficiency as the main factor in determining which eligible properties should be prioritized.

Clustering based on low-income or environmental justice communities

The methodology would identify populations that are exposed to high levels of environmental stressors and are low-income or minority populations within the project area using up-to-date economic statistics, aerial photographs, and U.S. Census Bureau 2013-2017 American Community Survey (ACS) estimates. EPA has developed a new environmental justice (EJ) mapping and screening tool called EJSCREEN, which is based on nationally consistent data and an approach that combines environmental and demographic indicators in the form of EJ indexes. EJSCREEN relies on the 2013-2017 ACS 5-year summary file data. This approach would rank environmental and demographic data as the main factor in determining which eligible properties should be prioritized.

4.8.2 Risk-Level

Willing property owners may not exist in clusters. In such cases, an alternative option is to focus on the willing property owners that exhibit the highest risk for flood damages. For example, if 1,000 property owners execute Flood Proofing Agreements, the owners who reside in the 0-5-year floodplain would be prioritized for construction. Once these properties are elevated, the next highest-risk properties (6-10-year floodplain) would be targeted. This approach would rank risk exposure as the main factor in determining which eligible properties should be prioritized.

4.8.3 First-Come, First-Served

This approach would involve creating a list of eligible property owners and ranking them by how quickly their contracts and eligibility documentation are processed. This approach would help ensure that resources would be used effectively by focusing on properties that have owner support for the flood proofing measures.

Note: Additional methods of scheduling or prioritizing such work may be considered.

Section 5
Louisiana Coastal Use Guidelines

5.1 GUIDELINES APPLICABLE TO ALL USES

These guidelines and responses are at the feasibility level in nature and would be followed by more detailed analysis in subsequent NEPA documents and associated consistency determination(s).

Guideline 1.1. The guidelines must be read in their entirety. Any proposed use may be subject to the requirements of more than one guideline or section of guidelines and all applicable guidelines must be complied with.

Acknowledged.

Guideline 1.2. Conformance with applicable water and air quality laws, standards and regulations, and with those other laws, standards and regulations which have been incorporated into the coastal resources program shall be deemed in conformance with the program except to the extent these guidelines would impose additional requirements.

Acknowledged.

Guideline 1.3. The guidelines include both general provisions applicable to all uses and specific provisions applicable only to certain types of uses. The general guidelines apply in all situations. The specific guidelines apply only to the situations they address. Specific and general guidelines should be interpreted to be consistent with each other. In the event there is an inconsistency, the specific should prevail.

Acknowledged.

Guideline 1.4. These guidelines are not intended to nor shall they be interpreted so as to result in an involuntary acquisition or taking of property.

Acknowledged.

Guideline 1.5. No use or activity shall be carried out or conducted in such a manner as to constitute a violation of the terms of a grant or donation of any lands or water-bottoms to the State or any subdivision thereof. Revocations of such grants and donations shall be avoided.

No violations or revocations of such grants or donations are expected.

Guideline 1.6. Information regarding the following general factors shall be utilized by the permitting authority in evaluating whether the proposed use is in compliance with the guidelines.

a) type, nature and location of use.

Acknowledged.

b) elevation, soil and water conditions and flood and storm hazard characteristics of site.

Acknowledged.

c) techniques and materials used in construction, operations and maintenance of use.

Acknowledged.

d) existing drainage patterns and water regimes of surrounding area including flow, circulation, quality, quantity and salinity; and impacts on them.

Acknowledged.

e) availability of feasible alternative sites or methods – for implementing the use.

Acknowledged.

f) designation of the area for certain uses as part of a local program.

Acknowledged.

g) economic need for use and extent of impacts of use on economy of locality.

Acknowledged.

h) extent of resulting public and private benefits.

Acknowledged.

i) extent of coastal water dependency of the use.

Acknowledged.

j) existence of necessary infrastructure to support the use and public costs resulting from use.

Acknowledged.

k) extent of impacts on existing and traditional uses of the area and on future uses for which the area is suited.

Acknowledged.

l) proximity to, and extent of impacts on important natural features such as beaches, barrier islands, tidal passes, wildlife and aquatic habitats, and forest lands.

Acknowledged.

m) the extent to which regional, state and national interests are served including the national interest in resources and the siting of facilities in the coastal zones as identified in the coastal resources program.

Acknowledged.

n) proximity to, and extent of impacts on, special areas, particular areas, or other areas of particular concern of the state program or local programs.

Acknowledged.

o) likelihood of, and extent of impacts of, resulting secondary impacts and cumulative impacts.

Acknowledged.

p) proximity to and extent of impacts on public lands or works, or historic, recreational or cultural resources.

Acknowledged.

q) extent of impacts on navigation, fishing, public access, and recreational opportunities.

Acknowledged.

r) extent of compatibility with natural and cultural setting.

Acknowledged.

s) extent of long term benefits or adverse impacts.

Acknowledged.

Guideline 1.7. It is the coastal resources program's policy to avoid the following adverse impacts. To this end, all uses and activities shall be planned, sited, designed, constructed, operated and maintained to avoid to the maximum extent practicable significant:

a) Reductions in the natural supply of sediment and nutrients to the coastal system by alterations of freshwater flow.

The nonstructural measures would not alter freshwater flows and would have no reductions in the natural supply of sediments or nutrients to the coastal system. Rather, the

nonstructural measures would reduce the risk of damages resulting from hurricane and storm surge by

1. elevating eligible residential structures;
2. dry flood proofing eligible non-residential structures, excluding large warehouses and industrial complexes;
3. wet flood proofing eligible warehouses and industrial complexes.
4. Best available practical techniques and best management practices (BMPs) would be used to avoid, minimize and reduce the potential for affecting or reducing the natural supply of sediments and nutrients into the coastal system.

b) Adverse economic impacts on the locality of the use and affected governmental bodies.

The nonstructural measures are not expected to have any adverse economic impacts on the locality of the use or on nearby governmental bodies. No industries, jobs, or other economic activities are likely to be adversely impacted by the proposed action.

The nonstructural measures would use the best available practical techniques and BMPs to avoid, minimize and reduce the potential for adverse economic impacts of providing risk reduction of hurricane and storm surge flood damage for a total of 2240 impacted structures consisting of 1790 eligible residential structures and 450 eligible commercial structures and public buildings. Implementing the nonstructural measures would reduce adverse economic impacts by reducing administrative costs and claims to the Federal Flood Insurance Program, under the FEMA, for repetitive flood insurance claims. This estimate is based upon present information and could change during implementation of the nonstructural measures.

c) Detrimental discharges of inorganic nutrient compounds into coastal waters.

The nonstructural measures would not discharge inorganic nutrient compounds into coastal waters because of the remoteness of identified structures from coastal waters. Rather, all the measures would reduce damages resulting from hurricane and storm surge by 1) elevating eligible residential structures; 2) dry flood proofing of eligible non-residential structures: and 3) wet flood proofing warehouses and industrial complexes. In addition, the use of the best available practical techniques and BMPs to avoid, minimize and reduce the potential for detrimental discharges of inorganic nutrient compounds into coastal waters.

d) Alterations in the natural concentration of oxygen in coastal waters.

The nonstructural measures would not result in alterations in the natural concentration of oxygen in coastal waters because of the remoteness of identified structures from coastal waters. Rather, the nonstructural measures would reduce damages from hurricane and storm surge by 1) elevating eligible residential structures; 2) dry flood proofing of eligible non-residential structures, and 3) wet flood proofing warehouses and industrial complexes. In addition, the use of the best available practical techniques and BMPs to avoid, minimize and reduce the potential for alterations in the natural concentration of oxygen in coastal waters.

e) Destruction or adverse alterations of streams, wetland, tidal passes, inshore waters and water bottoms, beaches, dunes, barrier islands, and other natural biologically valuable areas or protective coastal features.

The nonstructural measures would not destroy or adversely alter streams, wetlands, tidal passes, inshore waters and water bottoms, beaches, dunes, barrier islands, or other natural biologically valuable areas or protective coastal features because of the remoteness of identified structures from coastal waters. Rather, the nonstructural measures would reduce damages resulting from hurricane and storm surge by 1) elevating eligible residential structures; 2) dry flood proofing of eligible non-residential structures: and 3) wet flood proofing warehouses and industrial complexes. In addition, the use of the best available practical techniques and BMPs to avoid, minimize and reduce the destruction or adverse alterations of streams, wetland, tidal passes, inshore waters and water bottoms, beaches, dunes, barrier islands, and other natural biologically valuable areas or protective coastal features.

f) Adverse disruption of existing social patterns.

Disruptions of existing social patterns due to implementing the nonstructural measures would be primarily associated with the construction activities:

- Elevating identified structures to the 100-year base flood elevation based on year 2075 hydrology of eligible residential structures.
- Dry flood proofing to the BFE generally means the use of a various techniques that make a structure waterproof and substantially impenetrable to floodwaters. For example, the walls, doors, windows, and other openings of eligible non-residential structures are made impermeable to water penetration.
- Wet flood proofing warehouses and industrial complexes so that water enters a structure and is allowed to equalize hydrostatic pressure. Elevating warehouse contents is also a function of wet flood proofing.

The voluntary nature of implementing the nonstructural measures is anticipated to result in construction on a structure-by-structure basis. This would help to avoid, minimize and reduce the potential for disruption of existing social patterns. Nevertheless, construction activities could cause localized, but in most instances temporary impacts including: disruption and congestion of vehicular traffic patterns in the immediate vicinity of structures undergoing risk reduction; noise; dust; diesel and gas engine fumes emissions; vibration; emissions of construction wastes; greenhouse gas emissions; increased local electricity and fuel consumption; and local increases in the number of vehicles, construction equipment and workers in the vicinity of those structures undergoing risk reduction. However, the best available practical techniques and BMPs would be used to avoid, minimize and reduce potential adverse disruption of social patterns. Following temporary construction of voluntary flood risk reduction measures, these areas would once again be available for social patterns similar to pre-construction social patterns.

g) Alterations of the natural temperature regime of coastal waters.

Implementing the nonstructural measures would not alter the natural temperature regime of coastal waters due to the remoteness of the nonstructural measures from coastal waters. Rather, the nonstructural measures would reduce damages resulting from hurricane and storm surge by 1) elevating eligible residential structures; 2) dry flood proofing of eligible non-residential structures; and, 3) wet flood proofing warehouses and industrial complexes. In addition, the use of the best available practical techniques and BMPs to avoid, minimize and reduce the potential for alterations in the natural temperature in coastal waters.

h) Detrimental changes in existing salinity regimes.

Implementing the nonstructural measures would not result in any detrimental changes in existing salinity regimes due to the remoteness of the nonstructural measures from coastal waters. Rather, the nonstructural measures would reduce hurricane and storm surge by 1) elevating eligible residential structures; 2) dry flood proofing of eligible non-residential structures; and, 3) wet flood proofing warehouses and industrial complexes In addition, the use of the best available practical techniques and BMPs to avoid, minimize and reduce the potential for detrimental changes in existing salinity regimes.

i) Detrimental changes in littoral and sediment transport processes.

Implementing the nonstructural measures would not result in any detrimental changes in littoral or sediment transport processes due to the remoteness of the nonstructural measures from coastal waters. Rather, the nonstructural measures would reduce damages resulting from hurricane and storm surge by: 1) elevating eligible residential structures; 2) dry flood proofing of eligible non-residential structures; and, 3) wet flood proofing warehouses and industrial complexes. In addition, the use of the best available practical techniques and BMPs to avoid, minimize and reduce the potential for detrimental changes in littoral and sediment transport processes.

j) Adverse effects of cumulative impacts.

Cumulative impacts represent the effects of implementing the proposed action (both the nonstructural measures) on significant resources when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions.

The CEMVN did not identify any additional adverse impacts that may contribute to cumulative adverse impacts in the nation, region, and study area.

k) Detrimental discharges of suspended solids into coastal waters, including turbidity resulting from dredging.

Implementing the nonstructural measures would not result in any detrimental discharges of suspended solids into coastal waters. Rather, the nonstructural measures would reduce damages resulting from hurricane and storm surge by: 1) elevating eligible residential structures; 2) dry flood proofing of eligible non-residential structures; and, 3) wet flood

proofing warehouses and industrial complexes. In addition, the use of the best available practical techniques and BMPs to avoid, minimize and reduce the potential for detrimental changes in discharges of suspended solids into coastal waters, including turbidity. This is no dredging proposed in this project.

The nonstructural measures are typically far removed from coastal waters and discharges into coastal waters is not part of the planned nonstructural construction. In addition, the best available practical techniques and the best available practical techniques and BMPs would be used for all, but especially those structures located adjacent to waterways, to avoid and minimize potential detrimental discharges of suspended solids and turbidity.

l) Reductions or blockage of water flow or natural circulation patterns within or into an estuarine system or a wetland forest.

Implementation of the nonstructural measures would not reduce or block water flows or natural circulation patterns. Rather, the nonstructural measures would reduce damages resulting from hurricane and storm surge by: 1) elevating eligible residential structures; and 2) dry flood proofing of eligible non-residential structures; and, 3) wet flood proofing warehouses and industrial complexes. In addition, the use of the best available practical techniques and BMPs to avoid, minimize and reduce the potential for reductions or blockage of water flow or natural circulation patterns within or into an estuarine system or a wetland forest.

The nonstructural measures are typically far removed from coastal waters and reductions or blockage of water flow or natural circulation patterns within an estuarine or wetland forest is not part of the planned nonstructural construction. In addition, the best available practical techniques and the best available practical techniques and BMPs would be used especially for those structures located nearby estuarine or wetland forests.

m) Discharges of pathogens or toxic substances into coastal waters.

The nonstructural measures would not discharge pathogens or toxic substances into coastal waters. Rather, the nonstructural measures property owners must execute an authorization for entry which would grant the CEMVN and the NFS authorization to enter in and upon the structure and land for purposes of investigating, inspecting, surveying, performing limited environmental testing and a hazardous, toxic, and radioactive waste (HTRW) assessment, evaluating the condition of the structure, determining elevation requirements, verifying the current elevation, performing an appraisal, and conducting other activities necessary for USACE to make a determination of structure eligibility.

The property owner must submit satisfactory proof of ownership and a current Elevation Certificate. Title research and appraisals would be completed by the NFS. The property must have clear title. The property owner would be responsible to clear the title of all ownership issues and obtain any necessary subordination agreements from holders of liens, encumbrances, or third party interests at the property owner's sole expense; the failure to provide clear title shall result in a determination of ineligibility. An ASTM Phase I HTRW/Asbestos investigation (and if warranted, may be accompanied by additional HTRW

investigations), inspections, surveys, and boundary monumentations would be completed. The land and the structure must be certified as "clean" by the appropriate State office before any Project funds may be expended. All asbestos must be abated and disposed of properly. After all inspections, investigations, assessments, and other activities are completed, the CEMVN would make a determination of eligibility for elevation. The best available practical techniques and the best available practical techniques and BMPs would be used especially for avoiding, reducing and minimizing potential discharges of pathogens or toxic substances into coastal waters.

Records indicate the majority of the project areas are either clean, or remediated and closed. Based on the Phase I environmental site assessment, the proposed activities would likely result in the "capping" of any potentially impacted areas through the placement of overlying materials including sand, sediment, rocks, and placement of reinforced structures. The CEMVN would utilize the best available practical techniques and BMPs during construction to avoid and minimize potential adverse impacts or discharges of pathogens or toxic substances into coastal waters.

n) Adverse alteration or destruction of archaeological, historical, or other cultural resources.

A review of the nonstructural alternatives indicates the considered action includes the introduction of new visual elements and/or modifications to above-ground historic properties (e.g., standing structures and historic districts) that may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association as well as ground disturbing activities (access, staging, construction, and the relocation of utilities and infrastructure), having the potential to directly and/or indirectly effect known and previously undocumented cultural resources that may exist within the study area.

The CEMVN would follow its Section 106 procedures, if these alternatives are carried forward. The CEMVN is developing a PA in consultation with the NFS, LA SHPO, ACHP, Federally recognized Indian Tribes, and other interested parties outlining the steps needed to identify and evaluate cultural resources and complete the Section 106 process. The PA would govern the CEMVN's subsequent NHPA compliance efforts. If significant historic properties are identified within the study area, the CEMVN would develop strategies to avoid those resources or to minimize or mitigate for adverse effects and any additional conditions or requirements would be documented at that time.

o) Fostering of detrimental secondary impacts in undisturbed or biologically highly productive wetland areas.

Implementing the nonstructural measures would not result in any detrimental secondary impacts in undisturbed or biologically highly productive wetland areas. Rather, the nonstructural measures would reduce damages resulting from hurricane and storm surge by: 1) elevating eligible residential structures; 2) dry flood proofing of eligible non-residential structures; and, 3) wet flood proofing warehouses and industrial complexes. In addition, the use of the best available practical techniques and BMPs to avoid, minimize and reduce the

potential for detrimental secondary impacts in undisturbed or biologically highly productive wetland areas.

The nonstructural measures are typically far removed from coastal waters and discharges into coastal waters is not part of the planned nonstructural construction. In addition, the best available practical techniques and the best available practical techniques and BMPs would be used for all, but especially those structures located adjacent to waterways, to avoid and minimize potential detrimental discharges of suspended solids and turbidity.

This project would not result in any wetland impact or loss. No wetland mitigation would be required.

These areas are characterized as previously disturbed residential and business areas that are not biologically productive or undisturbed wetland areas. Potential detrimental secondary impacts of implementing the nonstructural measures would generally be short term and localized impacts associated with construction activities involved with elevating, dry flood proofing, and wet flood proofing.

Secondary impacts in most instances would be temporary and localized and include: disruption and congestion of vehicular traffic patterns in the immediate vicinity of structures undergoing risk reduction; noise; dust; diesel and gas engine fumes emissions; vibration; emissions of construction wastes; greenhouse gas emissions; increased local electricity and fuel consumption; and local increases in the number of vehicles, construction equipment and workers in the vicinity of those structures undergoing flood risk reduction. However, the best available practical techniques and BMPs would be used to avoid, minimize and reduce potential adverse disruption of social patterns. Following construction, these areas would once again be available for social patterns and human habitations and uses similar to pre-construction social patterns. The nonstructural measures would use the best available practical techniques and the best available practical techniques and BMPs to avoid, reduce and minimize the potential for adverse secondary impacts on undisturbed or biologically highly productive wetland areas.

The proposed project would have No Effect on any listed state or federally protected species.

p) Adverse alteration or destruction of unique or valuable habitats, critical habitat for endangered species, important wildlife or fishery breeding or nursery areas, designated wildlife management or sanctuary areas, or forestlands.

The CEMVN determined the proposed project would have No Effect on any listed species, or any critical habitats. The project would not adversely affect any unique or valuable habitats.

The Migratory Bird Treaty Act and the Migratory Bird Conservation Act protect migratory birds and their habitat. Many important habitats in the project area provide migratory bird shelter, nesting, feeding and roosting habitat. All construction activities shall observe a buffer of 1,000 feet for any colonial-nesting waterbird colonies (e.g., egrets, herons, ibis, pelicans,

etc.), 1,300 feet for any shorebird nesting colonies (e.g., terns, gulls, plovers, skimmers, etc.), and 2,000 feet for any brown pelican nesting colonies near any project measure.

q) Adverse alteration or destruction of public parks, shoreline access points, public works, designated recreation areas, scenic rivers, or other areas of public use and concern.

See above response to "p) adverse alteration or destruction of unique or valuable habitats, critical habitat for endangered species, important wildlife or fishery breeding or nursery areas, designated wildlife management or sanctuary areas, or forestlands." No other public parks, shoreline access points, public works, or designated recreation areas would be adversely altered by either the nonstructural measures. The measures would utilize the best available practical techniques and BMPs during construction to avoid and minimize potential adverse impacts on public parks, shoreline access points, public works, designated recreation areas, scenic rivers, or other areas of public use and concern.

r) Adverse disruptions of coastal wildlife and fishery migratory patterns.

The nonstructural measures include elevating eligible residential structures; dry flood proofing and wet floodproofing of eligible non-residential structures. The measures are located in previously disturbed residential and business areas far removed from coastal wildlife and fish. Hence, the measures would not adversely disrupt coastal wildlife or fishery migratory patterns. The measures would utilize the best available practical techniques and BMPs during construction to avoid and minimize potential adverse impacts on coastal wildlife and fishery migratory patterns.

s) Land loss, erosion and subsidence.

The nonstructural measures, by design, would reduce damages resulting from hurricane and storm surge by elevating eligible residential structures; dry flood proofing, or wet flood proofing of eligible non-residential structures. The measures are located in previously disturbed residential and business areas and would not cause significant land loss, erosion or subsidence. The measures would utilize the best available practical techniques and BMPs during construction to avoid, minimize and reduce potential adverse impacts regarding land loss, erosion and subsidence.

t) Increases in the potential for flood, hurricane or other storm damage, or increases in the likelihood that damage would occur from such hazards.

The nonstructural measures would not increase the potential for flood, hurricane, or other storm damage, or increase the likelihood of damage from such hazards. Rather, the nonstructural measures would reduce flood risk for residential and non-residential structures having first floor elevations at or below the 0-25-year floodplain, based on hydrologic conditions predicted to occur in 2025 (the beginning of the 50 year period of analysis). The nonstructural measures would provide reduced risk of damages resulting from hurricane and storm surge flood for 2,240 impacted structures consisting of 1,790 eligible residential structures and 450 eligible commercial structures and public buildings. The measures would

utilize the best available practical techniques and BMPs during construction to avoid, minimize and reduce potential adverse impacts regarding potential for flood, hurricane or other storm damage, or increases in the likelihood that damage would occur from such hazards.

u) Reductions in the long-term biological productivity of the coastal ecosystem.

The nonstructural measures are located in previously disturbed residential and business areas and would not reduce long-term biological productivity of the coastal ecosystem. Rather, the measures would reduce flood risk for residential and non-residential structures having first floor elevations at or below the 0-25-year floodplain, based on hydrologic conditions predicted to occur in 2025 (the beginning of the 50 year period of analysis). The measures would utilize the best available practical techniques and BMPs during construction to avoid, minimize and reduce potential adverse impacts regarding potential for reductions in the long-term biological productivity of the coastal ecosystem.

Guideline 1.8. In those guidelines in which the modifier "maximum extent practicable" is used, the proposed use is in compliance with the guideline if the standard modified by the term is complied with. If the modified standard is not complied with, the use would be in compliance with the guideline if the permitting authority finds, after a systematic consideration of all pertinent information regarding the use, the site and the impacts of the use as set forth in guideline 1.6, and a balancing of their relative significance, that the benefits resulting from the proposed use would clearly outweigh the adverse impacts resulting from noncompliance with the modified standard and there are no feasible and practical alternative locations, methods and practices for the use that are in compliance with the modified standard and: a) significant public benefits would result from the use, or; b) the use would serve important regional, state or national interests, including the national interest in resources and the siting of facilities in the coastal zone identified in the coastal resources program, or; the use is coastal water dependent. The systematic consideration process shall also result in a determination of those conditions necessary for the use to be in compliance with the guideline. Those conditions shall assure that the use is carried out utilizing those locations, methods and practices which maximize conformance to the modified standard; are technically, economically, environmentally, socially and legally feasible and practical and minimize or offset those adverse impacts listed in guideline 1.7 and in the guideline at issue.

Acknowledged.

Guideline 1.9. Uses shall to the maximum extent practicable be designed and carried out to permit multiple concurrent uses which are appropriate for the location and to avoid unnecessary conflicts with other uses of the vicinity.

The nonstructural measures are located in previously disturbed residential and business areas and would only be unavailable for multiple concurrent uses during flood risk reduction construction activities. Following construction, areas subjected to construction impacts would be restored at least to their natural pre-construction condition using the best available

restoration techniques, the best available practical techniques and BMPs to avoid, minimize and reduce potential adverse impacts to multiple concurrent uses Natural waterways would not be closed.

Guideline 1.10. These guidelines are not intended to be, nor shall they be, interpreted to allow expansion of governmental authority beyond that established by La. R.S. 49: 213.1 through 213.21, as amended; nor shall these guidelines be interpreted so as to require permits for specific uses legally commenced or established prior to the effective date of the coastal use permit program nor to normal maintenance or repair of such uses.

Acknowledged.

5.2 GUIDELINES FOR LEVEES

Guideline 2.1. The leveeing of unmodified or biologically productive wetlands shall be avoided to the maximum extent practicable.

Implementation of the nonstructural measures would not involve the construction of levees.

Guideline 2.2. Levees shall be planned and sited to avoid segmentation of wetland areas and systems to the maximum extent practicable.

Implementation of the nonstructural measures would not involve the construction of levees.

Guideline 2.3. Levees constructed for the purpose of developing or otherwise changing the use of a wetland area shall be avoided to the maximum extent practicable.

Implementation of the nonstructural measures would not involve the construction of levees.

Guideline 2.4. Hurricane and flood protection levees shall be located at the non-wetland/wetland interface or landward to the maximum extent practicable.

Implementation of the nonstructural measures would not involve the construction of levees.

Guideline 2.5. Impoundment levees shall only be constructed in wetland areas as part of approved water or marsh management projects or to prevent release of pollutants.

Implementation of the nonstructural measures would not involve the construction of levees. The nonstructural measures would utilize the best available practical techniques and BMPs during construction to avoid, minimize and reduce potential adverse impacts to wetland areas and prevent the release of pollutants.

Guideline 2.6. Hurricane or flood protection levee systems shall be designed, built and thereafter operated and maintained utilizing best practical techniques to minimize disruptions of existing hydrologic patterns, and the interchange of water, beneficial nutrients and aquatic organisms between enclosed wetlands and those outside the levee system.

Implementation of the nonstructural measures would not involve the construction of levees. The nonstructural measures would utilize the best available practical techniques and BMPs during construction to avoid, minimize and reduce potential adverse impacts to minimize disruptions of existing hydrologic patterns, the interchange of water, beneficial nutrients and aquatic organisms and wetlands.

5.3 GUIDELINES FOR LINEAR FACILITIES

Guideline 3.1. Linear use alignments shall be planned to avoid adverse impacts on areas of high biological productivity or irreplaceable resource areas.

Implementation of the nonstructural measures would not involve the construction of any linear facility. The nonstructural measures would utilize the best available practical techniques and BMPs during construction to avoid adverse impacts on areas of high biological productivity or irreplaceable resource areas.

Guideline 3.2. Linear facilities involving the use of dredging or filling shall be avoided in wetland and estuarine areas to the maximum extent practicable.

By design, the nonstructural measures would not include dredging or filling in wetlands or estuarine areas. The nonstructural measures would utilize the best available practical techniques and BMPs during construction to avoid wetland and estuarine areas to the maximum extent practicable.

Guideline 3.3. Linear facilities involving dredging shall be of the minimum practical size and length.

Acknowledged and not applicable.

Guideline 3.4. To the maximum extent practicable, pipelines shall be installed through the "push ditch" method and the ditch backfilled.

The nonstructural measures would not entail installation of any permanent pipelines.

Guideline 3.5. Existing corridors, rights of way, canals, and streams shall be utilized to the maximum extent practicable for linear facilities.

Acknowledged. The nonstructural measures only involve elevating residential structures, dry and wet flood proofing nonresidential structures. The nonstructural measures would utilize the best available practical techniques and BMPs during construction to avoid, minimize and reduce potential adverse impacts.

Guideline 3.6. Linear facilities and alignments shall be, to the maximum extent practicable, designed and constructed to permit multiple uses consistent with the nature of the facility.

For the nonstructural, the CEMVN would integrate existing land uses into the design. During construction, the measures would be temporarily unavailable for multiple uses.

Guideline 3.7. Linear facilities involving dredging shall not traverse or adversely affect any barrier island.

The nonstructural measures would not occur on or near any barrier islands.

Guideline 3.8. Linear facilities involving dredging shall not traverse beaches, tidal passes, protective reefs or other natural gulf shoreline unless no other alternative exists. If a beach, tidal pass, reef or other natural gulf shoreline must be traversed for a non-navigation canal, they shall be restored at least to their natural condition immediately upon completion of construction. Tidal passes shall not be permanently widened or deepened except when necessary to conduct the use. The best available restoration techniques which improve the traversed area's ability to serve as a shoreline shall be used.

The nonstructural measures would not occur on or near any beaches, tidal passes, protective reefs or other natural gulf shoreline.

Guideline 3.9. Linear facilities shall be planned, designed, located and built using the best practical techniques to minimize disruption of natural hydrologic and sediment transport patterns, sheet flow, and water quality, and to minimize adverse impacts on wetlands.

Acknowledged. The nonstructural measures would not impact of natural hydrologic and sediment transport patterns, sheet flow, and water quality, and to minimize adverse impacts on wetlands. The nonstructural measures would utilize the best available practical techniques and BMPs to avoid, minimize and reduce potential adverse impacts to minimize disruption of natural hydrologic and sediment transport patterns, sheet flow, and water quality, and to minimize adverse impacts on wetlands.

Guideline 3.10. Linear facilities shall be planned, designed, and built using the best practical techniques to prevent bank slumping and erosion, saltwater intrusion, and to minimize the potential for inland movement of storm generated surges. Consideration shall be given to the use of locks in navigation canals and channels which connect more saline areas with fresher areas.

Acknowledged. By design, the nonstructural measures would not cause any bank slumping and erosion, saltwater intrusion, inland movement of storm generated surges. The measures would not impact the use of locks in navigation canals and channels. The nonstructural measures would utilize the best available practical techniques and BMPs to avoid, minimize and reduce potential adverse impacts and to prevent bank slumping and erosion, saltwater intrusion, and to minimize the potential for inland movement of storm generated surges.

Guideline 3.11. All non-navigation canals, channels and ditches which connect more saline areas with fresher areas shall be plugged at all waterway crossings and at intervals between crossings in order to compartmentalize them. The plugs shall be properly maintained.

The nonstructural measures would not construct any permanent channels or canals would adversely affecting salinity patterns. The measures would utilize the best available practical techniques and BMPs to avoid, minimize and reduce potential adverse impacts and to ensure, if necessary, that connections between more saline areas with fresher areas shall be plugged and properly maintained, to the maximum extent practicable.

Guideline 3.12. The multiple use of existing canals, directional drilling and other practical techniques shall be utilized to the maximum extent practicable to minimize the number and size of access canals, to minimize changes of natural systems and to minimize adverse impacts on natural areas and wildlife and fisheries habitat.

The nonstructural measures would not entail using canals, directional drilling or access canals.

The measures would utilize the best available practical techniques and BMPs to avoid, minimize and reduce potential adverse impacts by the multiple by using existing canals, directional drilling and other practical techniques to the maximum extent practicable to minimize the number and size of access canals, to minimize changes of natural systems and to minimize adverse impacts on natural areas and wildlife and fisheries habitat.

Guideline 3.13. All pipelines shall be constructed in accordance with parts 191, 192, and 195 of Title 49 of the Code of Federal Regulations, as amended, and in conformance with the Commissioner of Conservation's Pipeline Safety Rules and Regulations and those safety requirements established by La. R. S. 45:408, whichever would require higher standards.

Acknowledged. The nonstructural measures would not entail using permanent pipelines. The measures would utilize the best available practical techniques and BMPs to avoid, minimize and reduce potential adverse impacts and ensure safety requirements are at the highest standards consistent with existing laws, rules, and regulations.

Guideline 3.14. Areas dredged for linear facilities shall be backfilled or otherwise restored to the preexisting conditions upon cessation of use for navigation purposes to the maximum extent practicable.

Acknowledged. The nonstructural measures would not entail dredging for linear facilities.

The measures would utilize the best available practical techniques and BMPs to avoid, minimize and reduce potential adverse impacts by backfilling or otherwise restoring work sites to the pre-existing conditions upon cessation of dredging and construction to the maximum extent practicable.

Guideline 3.15. The best practical techniques for site restoration and re-vegetation shall be utilized for all linear facilities.

Acknowledged. The nonstructural measures would utilize the best available practical techniques and BMPs during dredging and construction to avoid, minimize and reduce potential adverse impacts and restore and re-vegetate for all linear project measures. Any

areas subjected to construction impacts would be restored based upon their design intent, at least to their natural pre-construction condition, and this action would utilize the best available practical techniques for site restoration and re-vegetation and BMPs to avoid, minimize and reduce potential adverse impacts.

Guideline 3.16. Confined and dead end canals shall be avoided to the maximum extent practicable. Approved canals must be designed and constructed using the best practical techniques to avoid water stagnation and eutrophication.

Acknowledged. The nonstructural measures would not entail design or use of confined or dead-end canals.

The measures would utilize the best available practical techniques and BMPs to avoid, minimize and reduce potential adverse impacts by avoiding dredging confined or dead end canals, to the maximum extent practicable, and designing and constructing temporary floatation access canals using the best practical techniques to avoid water stagnation and eutrophication.

5.4 GUIDELINES FOR DREDGED MATERIAL DESPOSITION

Guideline 4.1. Spoil shall be deposited utilizing the best practical techniques to avoid disruption of water movement, flow, circulation and quality.

The nonstructural measures would not utilize or deposit dredged material.

Guideline 4.2. Spoil shall be used beneficially to the maximum extent practicable to improve productivity or create new habitat, reduce or compensate for environmental damage done by dredging activities, or prevent environmental damage. Otherwise, existing spoil disposal areas or upland disposal shall be utilized to the maximum extent practicable rather than creating new disposal areas.

The nonstructural measures would not utilize or deposit dredged material.

Guideline 4.3. Spoil shall not be disposed of in a manner which could result in the impounding or draining of wetlands or the creation of development sites unless the spoil deposition is part of an approved levee or land surface alteration project.

The nonstructural measures would not utilize or deposit dredged material.

Guideline 4.4. Spoil shall not be disposed of on marsh, known oyster or clam reefs or in areas of submersed vegetation to the maximum extent practicable.

The nonstructural measures would not utilize or deposit dredged material.

Guideline 4.5. Spoil shall not be disposed of in such a manner as to create a hindrance to navigation or fishing, or hinder timber growth.

The nonstructural measures would not utilize or deposit dredged material.

Guideline 4.6. Spoil disposal areas shall be designed and constructed and maintained using the best practical techniques to retain the spoil at the site, reduce turbidity, and reduce shoreline erosion when appropriate.

The nonstructural measures would not utilize or deposit dredged material.

Guideline 4.7. The alienation of state owned property shall not result from spoil deposition activities without the consent of the Department of Natural Resources.

The measures would not result in the alienation of state owned property.

5.5 GUIDELINES FOR SHORELINE MODIFICATIONS

Guideline 5.1. Nonstructural methods of shoreline protection shall be utilized to the maximum extent practicable.

The nonstructural measures would not involve shoreline modification.

Guideline 5.2. Shoreline modification structures shall be designed and built using best practical techniques to minimize adverse environmental impacts.

The nonstructural measures would not involve shoreline modification.

Guideline 5.3. Shoreline modification structures shall be lighted or marked in accordance with U.S. Coast Guard regulations, not interfere with navigation, and should foster fishing, other recreational opportunities, and public access.

The nonstructural measures would not involve shoreline modification.

Guideline 5.4. Shoreline modification structures shall be built using best practical materials and techniques to avoid the introduction of pollutants and toxic substances into coastal waters.

The nonstructural measures would not involve shoreline modification.

Guideline 5.5. Piers and docks and other harbor structures shall be designed and built using best practical techniques to avoid obstruction of water circulation.

The nonstructural measures would not involve shoreline modification.

Guideline 5.6. Marinas, and similar commercial and recreational developments shall to the maximum extent practicable not be located so as to result in adverse impacts on open productive oyster beds, or submersed grass beds.

The nonstructural measures would not involve shoreline modification.

Guideline 5.7. Neglected or abandoned shoreline modification structures, piers, docks, mooring and other harbor structures shall be removed at the owner's expense, when appropriate.

The nonstructural measures would not involve shoreline modification.

Guideline 5.8. Shoreline stabilization structures shall not be built for the purpose of creating fill areas for development unless part of an approved surface alteration use.

The nonstructural measures would not involve shoreline modification.

Guideline 5.9. Jetties, groins, breakwaters and similar structures shall be planned, designed and constructed so as to avoid to the maximum extent practicable downstream land loss and erosion.

The nonstructural measures would not involve shoreline modification.

Section 6
Guidelines for Surface Alterations

Guideline 6.1. Industrial, commercial, urban, residential, and recreational uses are necessary to provide adequate economic growth and development. To this end, such uses would be encouraged in those areas of the coastal zone that are suitable for development. Those uses shall be consistent with the other guidelines and shall, to the maximum extent practicable, take place only:

a) on lands five feet or more above sea level or within fast lands; or

b) on lands which have foundation conditions sufficiently stable to support the use, and where flood and storm hazards are minimal or where protection from these hazards can be reasonably well achieved, and where the public safety would not be unreasonably endangered; and

1. **the land is already in high intensity of development use, or**
2. **there is adequate supporting infrastructure, or**
3. **the vicinity has a tradition of use for similar habitation or development**

The nonstructural measures would include: 1) elevating eligible residential structures; 2) dry flood proofing of eligible non-residential structures; and, 3) wet flood proofing warehouses and industrial complexes. These areas are characterized as previously disturbed residential and business areas that are not biologically productive or wetland areas. The nonstructural measures would use the best available practical techniques and BMPs to avoid, minimize and reduce the potential for adverse economic or development impacts by providing risk reduction of hurricane and storm surge flood damage for a total of 2,240 impacted structures consisting of 1,790 eligible residential structures and 450 eligible commercial structures and public buildings. Implementing the nonstructural measures would reduce adverse economic impacts by reducing administrative costs and claims to the Federal Flood Insurance Program, under the FEMA, for repetitive flood insurance claims. This estimate is based upon present information and could change during implementation of the nonstructural measures. The construction of the nonstructural risk reduction measures would include encouragement of industrial, commercial, urban, residential, and recreational uses which provide adequate economic growth and development. Those uses would be consistent with the other guidelines.

Guideline 6.2. Public and private works projects such as levees, drainage improvements, roads, airports, ports, and public utilities are necessary to protect and support needed development and shall be encouraged. Such projects shall, to the maximum extent practicable, take place only when:

a) they protect or serve those areas suitable for development pursuant to Guideline 6.1; and

b) they are consistent with the other guidelines; and

c) they are consistent with all relevant adopted state, local and regional plans.

The nonstructural measures would, to the maximum extent practicable, protect and severe those areas suitable for development by implementing hurricane and storm surge risk reduction measures to a total of 2,240 impacted structures consisting of 1,790 eligible residential structures and 450 eligible commercial structures and public buildings. This action would support existing development and shall, to the maximum extent practicable, take place only when they protect or serve those areas suitable for development pursuant to Guideline 6.2; and are consistent with the other guidelines; and are consistent with all relevant adopted state, local and regional plans. The nonstructural measures would utilize the best available practical techniques for hurricane and storm surge risk reduction and BMPs to avoid, minimize and reduce potential adverse impacts and protect and support needed development.

Guideline 6.3. BLANK (Deleted by Louisiana Department of Natural Resources)

Guideline 6.4. To the maximum extent practicable, wetland areas shall not be drained or filled. Any approved drain or fill project shall be designed and constructed using best practical techniques to minimize present and future property damage and adverse environmental impacts.

The nonstructural measures would not drain or fill any wetlands. The measures would be located on previously disturbed residential and business properties.

Guideline 6.5. Coastal water dependent uses shall be given special consideration in permitting because of their reduced choice of alternatives.

Acknowledged. The nonstructural measures do not include coastal water dependent uses.

Guideline 6.6. Areas modified by surface alteration activities shall, to the maximum extent practicable, be re-vegetated, refilled, cleaned and restored to their predevelopment condition upon termination of the use.

Construction debris from elevated structures and flood proofed structures would be removed and the site cleaned and restored to pre-construction conditions or better upon completion of construction activities.

Any construction debris would be removed and the site cleaned and restored to pre-construction conditions or better upon completion of construction activities. The nonstructural measures would utilize the best available practical techniques for nonstructural hurricane and storm damage risk reduction and BMPs to avoid, minimize and reduce potential adverse impacts and return the area to preconstruction conditions.

Guideline 6.7. Site clearing shall to the maximum extent practicable be limited to those areas immediately required for physical development.

The nonstructural measures would generally not involve site clearing. Site clearing, to the maximum extent practicable, would be limited to those areas immediately required for elevating, flood proofing, building berms, or other similar project related construction of the measures' structures. Any areas subjected to construction impacts would be restored at least to their natural pre-construction condition, and this action would use the best available restoration techniques. The nonstructural measures would use the best available practical techniques for nonstructural hurricane and storm surge damage reduction and BMPs to avoid, minimize and reduce potential adverse impacts and shall, to the maximum extent practicable limit site clearing to those areas immediately required for physical development.

Guideline 6.8. Surface alterations shall, to the maximum extent practicable, be located away from critical wildlife areas and vegetation areas. Alterations in wildlife preserves and management areas shall be conducted in strict accord with the requirements of the wildlife management body.

The nonstructural measures projects would not be located in critical wildlife habitat; they are located in developed or disturbed areas (residential sites). The measures would not involve surface alterations near any critical wildlife or vegetation areas. The measures would use the best available practical techniques for nonstructural hurricane and storm surge risk reduction and BMPs to avoid, minimize and reduce potential adverse impacts to wildlife preserves and management areas in strict accord with the requirements of the wildlife management body.

Guideline 6.9. Surface alterations which have high adverse impacts on natural functions shall not occur, to the maximum extent practicable, on barrier islands and beaches, isolated cheniers, isolated natural ridges or levees,' or in wildlife and aquatic species breeding or spawning areas, or in important migratory routes.

The nonstructural measures would not entail surface alterations. However, it is not anticipated that any nonstructural measures would adversely impact natural functions. These surface alterations would be on previously disturbed lands characterized as residential and business lands and would not adversely impact natural functions and would not occur on barrier islands and beaches, isolated cheniers, isolated natural ridges or levees,' or in wildlife and aquatic species breeding or spawning areas, or in important migratory routes.

The measures would use the best available practical techniques for hurricane and storm damage risk reduction and BMPs to avoid, minimize and reduce potential adverse impacts, to the maximum extent practicable, to barrier islands and beaches, isolated cheniers, isolated natural ridges and levees, wildlife and aquatic species breeding and spawning areas and important migratory routes.

Guideline 6.10. The creation of low dissolved oxygen conditions in the water or traps for heavy metals shall be avoided to the maximum extent practicable.

The nonstructural measures would not entail creation of low dissolved oxygen conditions. The nonstructural measures would use the best available practical techniques for hurricane and storm damage risk reduction and BMPs to avoid, minimize and reduce potential adverse

impacts and the creation of low dissolved oxygen conditions or traps for heavy metals, to the maximum extent practicable.

The CEMVN does not anticipate any additional dissolved oxygen impacts.

Guideline 6.11. Surface mining and shell dredging shall be carried out utilizing the best practical techniques to minimize adverse environmental impacts.

Surface mining and shell dredging are not part of either the nonstructural measures.

Guideline 6.12. The creation of underwater obstructions which adversely affect fishing or navigation shall be avoided to the maximum extent practicable.

The nonstructural measures would not entail creation of underwater obstructions.

Guideline 6.13. Surface alteration sites and facilities shall be designed, constructed, and operated using the best practical techniques to prevent the release of pollutants or toxic substances into the environment and minimize other adverse impacts.

Surface alterations for the nonstructural measures would be primarily related to flood proofing non-residential structures. These nonstructural measures would be designed, constructed and operated using the best practical techniques and BMPs to prevent the release of pollutants or toxic substances into the environment and avoid, minimize, and reduce other adverse impacts.

Guideline 6.14. To the maximum extent practicable only material free of contaminants and compatible with the environmental setting shall be used as fill.

While the CEMVN anticipates using no fill, if needed, and to the maximum extent practicable, only material free of contaminants and compatible with the environmental setting shall be used as fill.

Section 7

Guidelines for Hydrologic and Sediment Transport Modifications

Guideline 7.1. The controlled diversion of sediment laden waters to initiate new cycles of marsh building and sediment nourishment shall be encouraged and utilized whenever such diversion would enhance the viability and productivity of the outfall area. Such diversions shall incorporate a plan for monitoring and reduction and/or amelioration of the effects of pollutants present in the freshwater source.

The measures do not contain any diversions of freshwater or sediments.

Guideline 7.2. Sediment deposition systems may be used to offset land loss, to create or restore wetland areas or enhance building characteristics of a development site. Such systems shall only be utilized as part of an approved plan. Sediment from these systems shall only be discharged in the area that the proposed use is to be accomplished.

The nonstructural measures would not involve sediment deposition systems to offset land loss, to create or restore wetland areas or enhance building characteristics for a building site. Rather, by design, the measures of elevating, buyouts, and dry flood proofing would provide hurricane and storm surge damage risk reduction. The measures would utilize the best available practical techniques and BMPs to avoid, minimize and reduce potential adverse impacts.

Guideline 7.3. Undesirable deposition of sediments in sensitive habitat or navigation areas shall be avoided through the use of the best preventive techniques.

The nonstructural measures would not involve sediment deposition in sensitive habitat or navigation areas. Rather, by design, the nonstructural measures would provide hurricane and storm surge damage risk reduction. The measures would utilize the best available practical techniques and BMPs to avoid, minimize and reduce potential adverse impacts to sensitive habitat and navigation areas.

Guideline 7.4. The diversion of freshwater through siphons and controlled conduits and channels, and overland flow to offset saltwater intrusion and to introduce nutrients into wetlands shall be encouraged and utilized whenever such diversion would enhance the viability and productivity of the outfall area. Such diversions shall incorporate a plan for monitoring and reduction and/or amelioration of the effects of pollutants present in the freshwater source.

The nonstructural measures do not include diversions of any type.

Guideline 7.5. Water or marsh management plans shall result in an overall benefit to the productivity of the area.

The nonstructural measures do not entail water or marsh management plans or any actions affecting productivity in the area.

Guideline 7.6. Water control structures shall be assessed separately based on their individual merits and impacts and in relation to their overall water or marsh management plan of which they are a part.

The nonstructural measures would not include water control structures.

Guideline 7.7. Weirs and similar water control structures shall be designed and built using the best practical techniques to prevent "cut arounds", permit tidal exchange in tidal areas, and minimize obstruction of the migration of aquatic organisms.

The nonstructural measures would not include water control structures such as weirs.

Guideline 7.8. Impoundments which prevent normal tidal exchange and/or the migration of aquatic organisms shall not be constructed in brackish and saline areas to the maximum extent practicable.

The nonstructural measures would not involve impoundments which prevent normal tidal exchange or the migration of aquatic organisms in brackish or saline areas.

Guideline 7.9. Withdrawal of surface and ground water shall not result in saltwater intrusion or land subsidence to the maximum extent practicable.

The proposed action would not entail withdrawal of surface or ground waters. Therefore, this guideline is not applicable to the nonstructural measures.

Section 8

Guidelines for Disposal of Wastes

The proposed action would not involve the disposal of wastes. Therefore, these guidelines are not applicable to either nonstructural measures. Any wastes generated during constructions would be properly handled and disposed.

Section 9

Guidelines for Uses that Result in the Alteration of Wasters Draining into Coastal Waters

The proposed action would not involve the alteration of waters draining into coastal waters. Therefore, these guidelines are not applicable to either nonstructural measures.

Section 10

Guidelines for Oil, Gas, and Other Mineral Activities

The proposed action would not involve oil, gas, or other mineral activities. During PED Phase, the inventory of wells within the measure areas would be examined. Inactive wells would be capped in place. Active wells would have access maintained either through a flotation channel or via boardwalk, in coordination with the landowner and well owner.

Section 11

Other State Policies Incorporated into the Program

Section 213.8A of Act 361 directs the Secretary of Department of Transportation and Development in developing the Louisiana Coastal Resources Program (LC) to include all applicable legal and management provisions that affect the coastal zone or are necessary to achieve the purposes of Act 361 or to implement the guidelines effectively. It states:

> *The Secretary shall develop the overall state coastal management program consisting of all applicable constitutional provisions, laws and regulations of this state which affect the coastal zone in accordance with the provisions of this Part and shall include within the program such other applicable constitutional or statutory provisions, or other regulatory or management programs or activities as may be necessary to achieve the purposes of this Part or necessary to implement the guidelines hereinafter set forth.*

The constitutional provisions and other statutory provisions, regulations, and management and regulatory programs incorporated into the LC are identified and described in the LC's Appendix 1. A description of how these other authorities are integrated into the LC and coordinated during program implementation is presented in Chapter 4. Because all these policies are incorporated into the LC, Federal agencies must ensure that their proposed actions are consistent with these policies as well as the coastal use guidelines (CZMA, Section 307).

Section 12

Coastal Zone Consistency Determination

The South Central Coast Louisiana nonstructural measures would provide nonstructural hurricane and storm surge damage risk reduction for a total of 2,240 impacted structures consisting of 1,790 eligible residential structures and 450 eligible commercial structures and public buildings. Based on this evaluation of the proposed action to the Coastal Use Guidelines, the U. S. Army Corps of Engineers, Mississippi Valley Division, New Orleans District, determined what is proposed herein is consistent, to the maximum extent practicable, with the State of Louisiana's Coastal Resources Program.

Questions regarding this determination should be addressed to Mr. Joe Jordan, Environmental Project Lead [redacted]

Section 13
Coastal Zone Boundary

The South Central Coast, LA Louisiana Coastal Zone Boundary is shown in Figure A7:13-1.

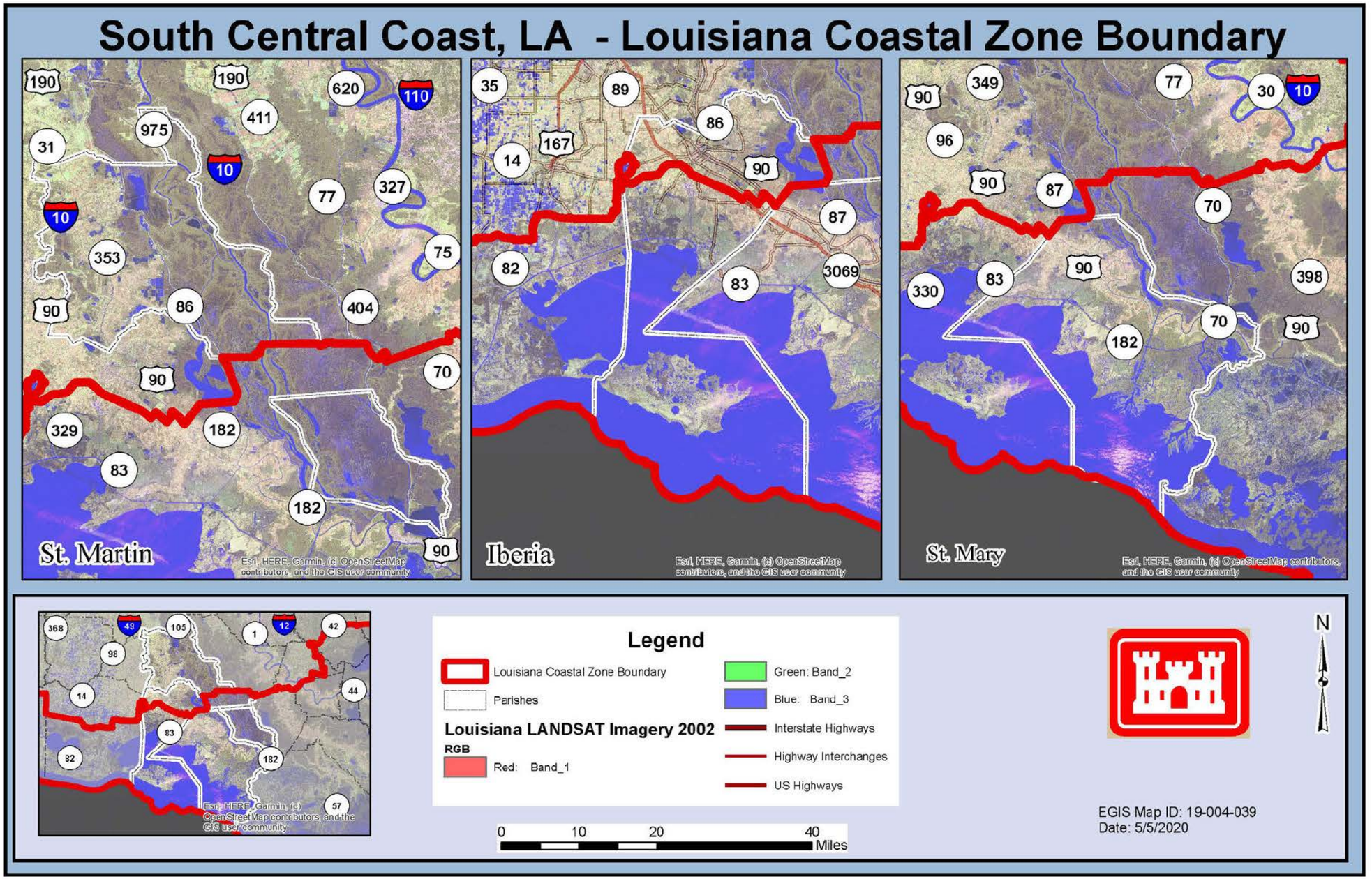

Figure A7 13-1. South Central Coast, LA Louisiana Coastal Zone Boundary

Section 14

Coastal Zone Consistency Determination Coordination

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVE
NEW ORLEANS LA 70118-3651

October 1, 2019

Regional Planning and Environmental
Division South (RPEDS)

Mr. Charles Reulet, Administrator
Interagency Affairs Services Division
Office of Coastal Management
Department of Natural Resources
P.O. Box 44487
Baton Rouge Louisiana 70804

Dear Mr. Reulet,

The US Army Corps of Engineers, New Orleans District (District) is preparing a feasibility report with integrated environmental impact statement pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended, for the proposed *South Central Coast Louisiana Flood Risk Management Feasibility Study*, located in St. Martin, Iberia, and St. Mary parishes, Louisiana (Project). The study will determine if the work necessary to sustain 100-year level of hurricane storm damage risk reduction is technically feasible, environmentally acceptable, and economically justified. The non-Federal sponsor is the Louisiana Coastal Protection and Restoration Authority.

Enclosed is the District's Coastal Zone Consistency Determination (Determination). The Determination concludes by stating the project is consistent, to the maximum extent practicable, with the State of Louisiana's Coastal Resources Program (LCRP). Since this project is in the feasibility phase of project planning, the District is seeking your guidance if the project's tentatively selected plan (TSP) is consistent with the LCRP. Once the District completes detailed design, we will seek concurrence to the Project's Determination. This phased approach provides for your agreement the project is consistent at this early stage of planning, while anticipating that additional information and decisions will be developed in later phases, such as Preconstruction Engineering, and Design, and will be subject to further consistency review.

The District recently narrowed its list of feasible alternatives. Based on costs versus flood risk management benefit, the TSP includes nonstructural measures within the 25-year floodplain. Nonstructural measures include elevating residential structures, buy outs, and flood proofing nonresidential structures.

If project planning changes our Determination, the District will reconsider its Determination and coordinate any updates with your office as soon as possible.

Please provide any comments you have concerning our Determination. We look forward to working with your agency on this project and appreciate the working relationship thus far. If you have any questions or would like to discuss in more detail, please contact Mr. Joe Jordan, Environmental Project Lead [redacted]

Sincerely,

Jodi Creswell
Environmental Planning Branch Chief

Enclosure

JOHN BEL EDWARDS
GOVERNOR

JACK MONTOUCET
SECRETARY

PO BOX 98000 | BATON ROUGE LA | 70898

October 21, 2019

Charles Reulet, Administrator
Louisiana Department of Natural Resources
Office of Coastal Management
P.O. Box 44487
Baton Rouge, LA 70804-4487

RE: *Application Number: C20190020*
Applicant: U.S. Army Corps of Engineers-New Orleans District
Notice Date: October 3, 2019

Dear Mr. Reulet:

The professional staff of the Louisiana Department of Wildlife and Fisheries (LDWF) has reviewed the above referenced notice regarding the South Central Coast Louisiana Flood Risk Management Feasibility Study. The following recommendations have been provided by the appropriate biologist(s):

Ecological Studies:
It is anticipated that the proposed activity will have minimal or no long-term adverse impacts to wetland functions and, therefore, we have no objection.

Wildlife Diversity Program:
Our records indicate that the proposed project may impact nesting Bald Eagles (*Haliaeetus leucocephalus*). This species is protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c) and the Migratory Bird Treaty Act (16 U.S.C. 703-712) and is protected by the State of Louisiana. This proposed project is less than 1,000 ft. away from the Bald Eagle nest(s) of concern. All Bald Eagle nests (active, inactive or seemingly abandoned) should be protected, and no large trees should be removed. No major activities should occur within the nesting period (September 1 – June 1). Please refer to the U.S. Fish and Wildlife Service Bald Eagle Management Guidelines for more information on avoiding impacts to this species including suggested buffer distances:
http://www.fws.gov/southeast/es/baldeagle/ & https://www.fws.gov/southeast/our-services/eagle-technical-assistance/

The piping plover (*Charadrius melodus*) may occur within one mile of the project area. This species is federally listed as threatened with its critical habitat designated along the Louisiana coast. Piping plovers winter in Louisiana feeding at intertidal beaches, mudflats, and sand flats with sparse emergent vegetation. Primary threats to this species are destruction and degradation of winter habitat, habitat alteration through shoreline erosion, woody species encroachment of lake shorelines and riverbanks, and human disturbance of foraging birds. For more information on piping plover critical habitat, visit the U.S. Fish and Wildlife website: http://endangered.fws.gov.

2000 QUAIL DRIVE BATON ROUGE, LA 70808 225-765-2800 WLF.LOUISIANA.GOV

The *rufa* subspecies of red knot (*Calidris canutus rufa*) may occur within one mile of the project area. Federally listed as threatened, the *rufa* red knot may be found in coastal Louisiana throughout the year, with the greatest number of knots migrating through each spring. Red knots forage on intertidal beaches, mudflats, marsh edges, and sand flats with sparse emergent vegetation. Primary threats to this species are anthropogenic destruction and degradation of nonbreeding habitat and food resources, habitat loss from shoreline erosion and subsidence, and human disturbance of foraging birds. For more information on the *rufa* red knot, visit the U.S. Fish and Wildlife website: http://endangered.fws.gov.

Our database indicates an occurrence of Wilson's Plover (*Charadrius wilsonia*) and Snowy Plover (*Charadrius alexandrinus*) may occur in your project area. These species are considered critically imperiled to imperiled in the state. These species are found year round in Louisiana, breeding along the Gulf coast and wintering in coastal Louisiana. These solitary nesters have a breeding season that begins in late March and extends into August, and are commonly found on beaches, sand flats, and fresh dredged-material. Threats to Wilson's Plover and Snowy Plover include habitat loss/degradation due to coastal development, beach stabilization and re-nourishment, sediment diversion, disturbance by humans, environmental contaminants, and un-naturally high populations of predators. We recommend that you take the necessary precautions to protect the breeding/wintering habitat of these species. If you have any questions or need additional information, please call Wildlife Diversity Program at 337-735-8675.

Our database indicates the presence of bird nesting colonies within one mile of this proposed project. **Please be aware that entry into or disturbance of active breeding colonies is prohibited by the Louisiana Department of Wildlife and Fisheries (LDWF). In addition, LDWF prohibits work within a certain radius of an active nesting colony.**

Nesting colonies can move from year to year and no current information is available on the status of these colonies. If work for the proposed project will commence during the nesting season, conduct a field visit to the worksite to look for evidence of nesting colonies. This field visit should take place no more than two weeks before the project begins. If no nesting colonies are found within 1000 feet (2000 feet for Brown Pelicans) of the proposed project, no further consultation with LDWF will be necessary. If active nesting colonies are found within the previously stated distances of the proposed project, further consultation with LDWF will be required. In addition, colonies should be surveyed by a qualified biologist to document species present and the extent of colonies. Provide LDWF with a survey report which is to include the following information:

1. qualifications of survey personnel;
2. survey methodology including dates, site characteristics, and size of survey area;
3. species of birds present, activity, estimates of number of nests present, and general vegetation type including digital photographs representing the site; and
4. topographic maps and ArcView shapefiles projected in UTM NAD83 Zone 15 to illustrate the location and extent of the colony.

Please mail survey reports on CD to: Wildlife Diversity Program
La. Dept. of Wildlife & Fisheries
P.O. Box 98000
Baton Rouge, LA 70898-9000

To minimize disturbance to colonial nesting birds, the following restrictions on activity should be observed:

- For colonies containing nesting wading birds (i.e., herons, egrets, night-herons, ibis, Roseate Spoonbills, Anhingas, or cormorants), all project activity occurring within 1000 feet of an active nesting colony should be restricted to the non-nesting period (i.e., September 1 through February 15).

- For colonies containing nesting gulls, terns, or Black Skimmers, all project activity occurring within 650 feet (2000 feet for Brown Pelicans) of an active nesting colony should be restricted to the non-nesting period (i.e., September 16 through April 1).

Manatee (*Trichechus manatus*) may occur in the surrounding water bodies of your site location. Manatees are large mammals inhabiting both fresh and salt water. Although most manatees are year round residents of Florida or Central America, they have been known to migrate to areas along the Atlantic and Gulf coast during the summer months. Manatee is a threatened species protected under the Endangered Species Act of 1973 and the Federal Marine Mammal Protection Act of 1972. In Louisiana, taking or harassment of a manatee is in violation of state and federal law. Critical habitat for manatee includes marine submergent vascular vegetation (sea-grass beds). Areas with sea-grass beds should be avoided during project activities if possible. Report all manatee sightings to the Louisiana Department of Wildlife and Fisheries at [redacted] or 1-800-442-2511.

The Paddlefish (*Polyodon spathula*) occurs in water bodies near the project area and is considered rare in Louisiana. The paddlefish is threatened by siltation of spawning habitat, pollution, back-to-back impoundments, and in some areas, exploitation by the caviar industry. Habitat destruction and river modification are the most obvious changes affecting abundance and distribution. We advise you to take the necessary measures in order to avoid any degradation of water quality of streams/canals. If you have any questions, please contact Keri Lejeune at [redacted]

The pallid sturgeon (*Scaphirhychus albus*) may occur in water bodies near your proposed project. The pallid sturgeon is listed as endangered under the Endangered Species Act (16 U.S.C. 1531-1544) and occur in the Mississippi and Atchafalaya rivers in southern Louisiana, and the Red River. This species requires large, turbid, free-flowing riverine habitat and is adapted to living close to the bottom of large rivers with sand and gravel bars. Pallid sturgeon typically spawn from May-August, but successful reproduction has been severely reduced due to habitat modification. This includes the loss of habitat through the construction of dams that have modified flows, reduced turbidity and lowered water temperatures. We advise you to take the necessary measures to avoid the breeding season and any degradation of water quality in the Mississippi and Atchafalaya rivers. If you have any questions, please contact Keri Lejeune 3[redacted]

The Louisiana black bear (Ursus americanus luteolus) may occur in your general project area. It is a species of greatest conservation need in Louisiana and has a S3 state rank. The Louisiana black bear utilizes a variety of habitat types, including forested wetlands, marsh, spoil banks, and upland forests. The primary threats to the species are fragmentation of remaining forested tracts, and human-caused mortality. Louisiana black bears, particularly pregnant females, normally den from December through April. Bears den in tree cavities or ground nests. Bald cypress (Taxodium distichum) and tupelo gum (Nyssa aquatica) with visible cavities, having a diameter at breast height of 36 inches or greater, and occurring in or along rivers, lakes, streams, bayous, sloughs, or other water bodies should be protected. If construction is to be performed during the denning season, further consultation with this office will be necessary. We strongly urge workers and contractors to avoid bears, particularly if work is to be conducted during the non-denning season (April through December). Employees should be cautioned to not leave food or garbage in the field, as bears can become attracted and accustomed to human food

easily. In addition, we recommend the use of bear proof garbage containers on site. If you have any questions please call LDWF Large Carnivore Program Manager Maria Davidson at [redacted]

The database also indicates the presence of several Salt Dome Hardwood Forests within the quads requested. This habitat type is considered critically imperiled globally with a global rank of G1 and an state rank of S1. Salt domes create mounds or ridges that rise up from the surrounding marsh habitat, providing islands of very fertile and loess-derived soils. The hardwood forests of these islands are hilly with deep, shaded ravines, up to 60 feet deep in some places. Like other coastal forest types, Salt Dome Hardwood Forests provide critical habitat for migrating land birds. We advise you to take the necessary measures to avoid any impacts to this ecological community.

The database indicates two Coastal Live Oak-Hackberry Forest natural community records located within the project area. This community is considered critically imperiled in Louisiana with an S1 state rank. This community type formed on ancient abandoned beach ridges in Southwest Louisiana. These ridges are composed primarily of sand and shell and are approximately 4 to 5 feet above sea level. This community, also known as a chenier, is an important storm barrier, limiting salt water intrusion, and acts as a migratory staging/stopover site for Neotropical migratory birds. We advise you to take the necessary measures to avoid any impacts to this ecological community. If you have any questions or need additional information, please contact Chris Doffitt at [redacted]

[redacted] proposed project area. This community is considered critically imperiled in Louisiana with an S1 state rank. This community provides habitat for many unique species of plants and acts as a migratory staging/stopover site for Neotropical migratory birds. We advise you to take the necessary measures to avoid any impacts to this ecological community. If you have any questions or need additional information, please contact Chris Doffitt at [redacted]

No other impacts to rare, threatened or endangered species or critical habitats are anticipated from the proposed project. No state or federal parks, wildlife refuges, wildlife management areas or scenic rivers are known at the specified site or within ¼ mile of the proposed project.

The Wildlife Diversity Program (WDP) reports summarize the existing information known at the time of the request regarding the location in question. WDP reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. If at any time WDP tracked species are encountered within the project area, please contact our biologist at [redacted]

The Louisiana Department of Wildlife and Fisheries appreciates the opportunity to review and provide recommendations to you regarding this proposed activity. Please do not hesitate to contact LDWF Permits Coordinator Dave Butler at [redacted] should you need further assistance.

Sincerely,

Kyle F. Balkum
Biologist Director

eb/cm/bh/cm

From: Jordan, Joseph W CIV (USA)
To: Jeff Harris
Subject: RE: C20190020 COE South Central Coast Flood Risk Management IBERIA, ST. MARY & ST. MARTIN PARISHES
Date: Wednesday, November 13, 2019 2:01:00 PM

Jeff -

The Corps of Engineers, New Orleans District received your initial email/ letter concerning the South Central Coast Louisiana project on Monday, October 21. Thank you for your comments. I discussed your agency's concerns and warnings concerning T &E species and colonial nesting birds with District personnel. We acknowledge the LDWF warnings and bird nesting colony instructions and endorse these statements. If after the District's planning efforts and the project is carried forward for developing plans and specifications, the District would add any limitations in the appropriate contract documents set out by the LDWF's October 21, 2019 letter. Further, during construction, the District would carry out any survey, monitoring and reporting requirements associated with impact avoidance to any LDWF trust resources.

Again, thank you for your assistance with this project and the ongoing communication between our agencies. Please contact me if you have any additional concerns or comments about this project.

Joe

Joe Jordan
CEMVP-PD-C
US Army Corps of Engineers,
Clock Tower Building
P.O. Box 2004
Rock Island, IL 61204-2004
[redacted]

-----Original Message-----
From: Jeff Harris [redacted]
Sent: Wednesday, November 13, 2019 1:42 PM
To: Jordan, Joseph W CIV (USA) <Joseph.W.Jordan@usace.army.mil>
Subject: [Non-DoD Source] RE: C20190020 COE South Central Coast Flood Risk Management IBERIA, ST. MARY & ST. MARTIN PARISHES

Joe--

I don't seem to have a reply to my earlier message, regarding LDWF's comments on this project. I need your acknowledgement of the warnings regarding threatened and endangered species, and confirmation that the Corps will comply with the bird nesting colony instructions.

Thank you,

--Jeff

-----Original Message-----
From: Jordan, Joseph W CIV (USA) [redacted]
Sent: Monday, October 21, 2019 10:52 AM
To: Jeff Harris <[redacted]
Subject: RE: [Non-DoD Source] FW: C20190020 COE South Central Coast Flood Risk Management IBERIA, ST. MARY & ST. MARTIN PARISHES

Jeff - Thank you for your initial thoughts on the SCCL project. I'll take a look and will respond to your requests either later today or tomorrow.

Joe

Joe Jordan

CEMVP-PD-C

US Army Corps of Engineers,

Clock Tower Building

P.O. Box 2004

Rock Island, IL 61204-2004

[redacted]1

-----Original Message-----

From: Jeff Harris [redacted]]

Sent: Monday, October 21, 2019 10:44 AM

To: Jordan, Joseph W CIV (USA) [redacted]
>

Subject: [Non-DoD Source] FW: C20190020 COE South Central Coast Flood Risk Management IBERIA, ST. MARY & ST. MARTIN PARISHES

Importance: High

Good morning, Joe-

Attached please find comments from the Louisiana Department of Wildlife and Fisheries regarding the South Central Coast project.

Please review and acknowledge their cautions regarding threatened and endangered species in the vicinity of the proposed work. Also, please confirm that the Corps of Engineers will comply with LDWF instructions concerning bird nesting colonies, should any be encountered in the course of the project.

Thanks,

--Jeff

From: Dave Butler [redacted]

Sent: Monday, October 21, 2019 7:04 AM

To: Jeff Harris [redacted]

Subject: FW: C20190020 COE South Central Coast Flood Risk Management IBERIA, ST. MARY & ST. MARTIN PARISHES

Importance: High

Jeff,

Attached are LDWF comments regarding C20190020.

Thanks,

Dave Butler

Permits Coordinator

Louisiana Department of Wildlife and Fisheries

2000 Quail Drive

Baton Rouge, LA 70808

(504) 286-4173 New Orleans Office

(225)763-3595 Baton Rouge Office

(225)765-2625 FAX

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVE
NEW ORLEANS LA 70118-3651

August 19, 2020

Regional Planning and Environmental
Division South (RPEDS)

Mr. Charles Reulet, Administrator
Interagency Affairs Services Division
Office of Coastal Management
Department of Natural Resources
P.O. Box 44487
Baton Rouge Louisiana 70804

RE:
APPLICATION NUMBER: C20190020, Coastal Zone Consistency
Applicant: U.S. Army Corps of Engineers, New Orleans District
Date: October 3, 2019

Dear Mr. Harris,

The US Army Corps of Engineers, New Orleans District (District) is preparing a feasibility report with integrated environmental impact statement pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended, for the proposed *South Central Coast Louisiana Flood Risk Management Feasibility Study*, located in St. Martin, Iberia, and St. Mary parishes, Louisiana (Project). The study will determine if the work necessary to sustain 100-year level of hurricane storm damage risk reduction is technically feasible, environmentally acceptable, and economically justified. The non-Federal sponsor is the Louisiana Coastal Protection and Restoration Authority.

Pursuant to federal regulations, consistency determinations must be submitted for each major decision in subsequent phases of the project that are subject to Federal discretion. The federal agency shall ensure the activity under development continues to be consistent to the maximum extent practicable with the management program until such plans are finalized. The District is now entering its final phase of feasibility planning and is seeking your concurrence the project can proceed per NOAA regulations on federal consistency at 15 CFR §930.36(d) for "phased consistency determinations." This phased approach provides for your agreement the project is consistent at this final stage of planning, while anticipating additional information and decisions will be developed in later phases, such as Preconstruction Engineering, and Design, and will be subject to further consistency review.

Background

In a letter dated September 20, 2019, the District provided its initial Coastal Zone Consistency Determination (Determination) to the Office of Coastal Management, Department of Natural Resources (OCM). The Determination concluded by stating the project is consistent, to the maximum extent practicable, with the State of Louisiana's Coastal Resources Program (LCRP). The District made this Determination early in the project's planning phase.

In a letter dated November 25, 2019, the OCM assigned a project number (above) and provided a response to the District's Determination (Enclosure 2) stating the OCM finds this phase of the project, as proposed in the application, is consistent with the LCRP. The initial coordination is located in Enclosure 1.

Updates

After the project's public review and further economic and engineering analysis, the District refined its cost benefit analysis as well as added more storm wave analysis. The final feasibility report will reflect the District's preferred alternative, or recommended plan, remains a nonstructural plan within the 25-year floodplain. Nonstructural measures include elevating residential structures, dry flood proofing commercial and public buildings, and wet proofing warehouses and industrial buildings.

Enclosure 3, a revised Determination, reflects new information based the updated analysis. The following errata should help in your concurrence:

- Page 1, Section 1.0, paragraph 4: This new paragraph provides a summary of the initial Determination's coordination.
- Throughout document: The Tentatively Selected Plan is now referred to as the Recommended Plan.
- Page 4, Section 3.1, paragraph 2: The number of potentially eligible structures changed:

Total eligible structures: 3,463 updated to 2,248

Residential structures: 2,629 updated to 1,798

Nonresidential structures: 834 updated to 450

This includes:	
Commercial structures	233
Public buildings	32
Industrial and warehouse	185

- Throughout the report, Wet proofing industrial complexes and warehouses was added as an additional nonstructural feature. The first reference to wet flood proofing is found on page 4, Section 3.1. *Nonstructural Features Within the 25-year Floodplain* (3rd bullet).

- Pages 8 & 10: Additional information concerning the ASTM Phase I Environmental Site Assessment (ESA) was added.

- Page 8, A footnote was added stating details in the Flood Proofing Agreement will be finalized during the Project's design phase.

- Page 11, a new section, *Section 4.3.3. Wet Flood proofing of Eligible Non-Residential Structures* was added.

- Page 19, *Section 4.8. Methods for Prioritizing Nonstructural Elevation Work* was reworded so it is consistent with the Project's Nonstructural Implementation Plan, Main Report, and Appendix K). However, no significant changes were made from the original Determination.

- Throughout the report, all references to buy outs were removed.

If project planning changes our Determination, the District will reconsider its Determination and coordinate any updates with your office as soon as possible.

Please provide any comments you have concerning our Determination. We look forward to working with your agency on this project and appreciate the working relationship thus far. If you have any questions or would like to discuss in more detail, please contact Mr. Joe Jordan, Environmental Project Lead [redacted]

Sincerely,

[redacted]

Jodi Creswell
Environmental Planning Branch Chief

cc:
Jeff Harris, OCM/Consistency Section
Hannah Pitts, OCM/FI
Dave Butler, LDWF

Enclosures

JOHN BEL EDWARDS
GOVERNOR

THOMAS F. HARRIS
SECRETARY

State of Louisiana

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF COASTAL MANAGEMENT

October 14, 2020

Jodi Creswell
Chief, Environmental Planning
Corps of Engineers- New Orleans District
7400 Leake Avenue
New Orleans, LA 70118
Via email [redacted]

RE: **C20190020 mod 01**, Coastal Zone Consistency
New Orleans District, Corps of Engineers
Direct Federal Action
South Central Coast Louisiana Flood Protection and Coastal Storm Risk Management: Designation of the Recommended Plan, adding Wet Proofing for eligible non-residential structures
St. Mary, Iberia and Vermilion Parishes, Louisiana

Dear Ms. Creswell:

The Office of Coastal Management (OCM) has received the above referenced federal consistency determination for review with the approved Louisiana Coastal Resources Program (LCRP). The proposed activity includes various flood risk reduction measures for as-yet unidentified structures within the 25-year floodplain. OCM concurred with an earlier consistency determination for this project, per NOAA regulations at 15 CFR §930.36(d) for "phased consistency determinations."

After careful review, this office finds that this project is consistent with the LCRP in accordance with Section 307 (c) of the Coastal Zone Management Act of 1972, as amended.

Should there be any future modifications to this project which have the potential to affect any land use, water use, or natural resource of the Louisiana coastal zone, please provide additional consistency determinations as appropriate to ensure compliance with the LCRP.

If you have any questions concerning this determination please contact Jeff Harris of the Consistency Section at [redacted]

Sincerely,

/S/ Charles Reulet
Administrator
Interagency Affairs/Field Services Division

CR/MH/jdh

cc: Joseph Jordan, COE
Dave Butler, LDWF
Hannah Pitts, OCM/FI

Post Office Box 44487 • Baton Rouge, Louisiana 70804-4487
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