

Appendix E

LOUISIANA COASTAL RESOURCES PROGRAM CONSISTENCY DETERMINATION

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LOUISIANA COASTAL RESOURCES PROGRAM CONSISTENCY DETERMINATION

AMITE RIVER DIVERSION CANAL MODIFICATION PROJECT, LIVINGSTON AND ASCENSION PARISHES, LOUISIANA

1.0 INTRODUCTION

Section 307 of the Coastal Zone Management Act of 1972, 16 U.S.C. 1451 et. seq. requires that "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." In accordance with Section 307, the U.S. Army Corps of Engineers (USACE), New Orleans District has prepared a Consistency Determination for the Louisiana Coastal Area Amite River Diversion Canal (LCA ARDC) Modification project. Coastal Use Guidelines were written in order to implement the policies and goals of the Louisiana Coastal Resources Program, and serve as a set of performance standards for evaluating projects. Compliance with the Louisiana Coastal Resources Program, and therefore, Section 307, requires compliance with applicable Coastal Use Guidelines.

2.0 PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the LCA Study is to:

- *Identify the most critical human and natural ecological needs of the coastal area;*
- *Present and evaluate conceptual alternatives for meeting the most critical needs;*
- *Identify the kinds of restoration features that could be implemented in the near-term (within 5 to 10 years) that address the most critical needs, and propose to address those needs through features that provide the highest return in net benefits per dollar of cost;*
- *Establish priorities among the identified near-term restoration features;*
- *Describe a process by which the identified priority near-term restoration features could be developed, approved, and implemented;*
- *Identify the key scientific uncertainties and engineering challenges facing the effort to protect and restore the ecosystem, and propose a strategy for resolving them;*
- *Identify, assess and, if appropriate, recommend feasibility studies that could be undertaken within the next 5 to 10 years to fully explore other potentially promising large-scale restoration concepts; and*

- *Present a strategy for addressing the long-term needs of coastal Louisiana restoration beyond the near-term focus of the Louisiana Coastal Area Ecosystem Restoration Plan (LCA Plan).*

Within the framework of the LCA Plan, the purpose of the proposed action is to address the problems of altered hydrology, swamp impoundment, decreased freshwater, sediment and nutrient input from the Amite River, decreased productivity, subsidence, impaired water quality, increased seedling mortality, and wetland degradation and loss within the study area. The USACE proposes to protect and restore, to the maximum extent practicable, the bald cypress-tupelo swamp within the study area. The LCA ARDC Modification project addresses systematic restoration of bald cypress-tupelo swamp in areas affected by the ARDC, and includes measures designed to prevent future bald cypress-tupelo swamp degradation and conversion, restore sheet flow impaired by dredged material bank construction, and protect vital socioeconomic and public resources.

The construction of the ARDC and the placement of dredged material along the banks to form continuous berms resulted in the impoundment, channelization, surge-related saltwater intrusion, and loss of freshwater, sediments, and nutrients from Amite River overbank flows. These alterations have all caused significant adverse impacts to the study area, resulting in poor swamp health and ecosystem degradation in the western Maurepas Swamp.

Prior studies and reports have documented degradation in the swamp adjacent to the ARDC and have demonstrated a need for ecosystem restoration that simulates historical hydrologic conditions. Without intervention, these problems would progressively get worse, until a significant portion of the bald cypress-tupelo swamp habitat within the study area is converted, initially to fresh marsh, and ultimately to shallow open water habitat.

This project is needed to establish hydrologic connectivity between the ARDC and adjacent swamp habitat to allow floodwaters to introduce additional nutrients and sediment into western Maurepas Swamp. The exchange of flow would occur during flood events on the river and from the runoff of localized rainfall events. Nutrients and sediment associated with the fresh water would be delivered to the swamp to facilitate organic deposition in the swamp, improve biological productivity, and prevent further habitat deterioration. Establishment of hydrologic connectivity is needed to allow swamps to drain during seasonal low-flow events, which would promote seedling germination and survival. Finally, establishment of hydrologic connectivity is needed to prevent the swamp habitat from converting to fresh marsh or open water.

As part of the goal of the LCA Plan, the goal of which is to reverse the current trend of degradation of the coastal ecosystem, the goal of the LCA ARDC Modification

project is to reverse the trend of degradation within the western Maurepas Swamp ecosystem that has been adversely affected by the construction of the ARDC. The LCA ARDC Modification project would contribute toward achieving and sustaining a coastal ecosystem that can support and protect the environment, economy, and culture of southern Louisiana and thus the Nation.

The objectives of the LCA ARDC Modification project, with respect to the study area, include:

- Increase hydrologic connectivity between the degraded swamp and bottomland hardwood habitats within the study area and the ARDC by increasing the exchange of freshwater, sediments, and nutrients over the 50-year period of analysis.
- Reduce habitat conversion of swamp to open water within the study area over the 50-year period of analysis.
- Facilitate natural hydrologic cycle within the study area over the 50-year period of analysis by reducing impoundment in degraded swamp and bottomland hardwood habitats adjacent to the ARDC to improve tree productivity and seedling germination.
- Restore fish and wildlife habitat within the study area over the 50-year period of analysis.

This project would complement two other LCA projects: LCA Small Diversion at Hope Canal Diversion and LCA Small Diversion at Convent/Blind River Diversion, and two proposed Coastal Impact Assistance Program (CIAP) projects: CIAP Hydrologic Restoration in Swamps West of Lake Maurepas and CIAP Bald Cypress/Tupelo Coastal Forest Protection.

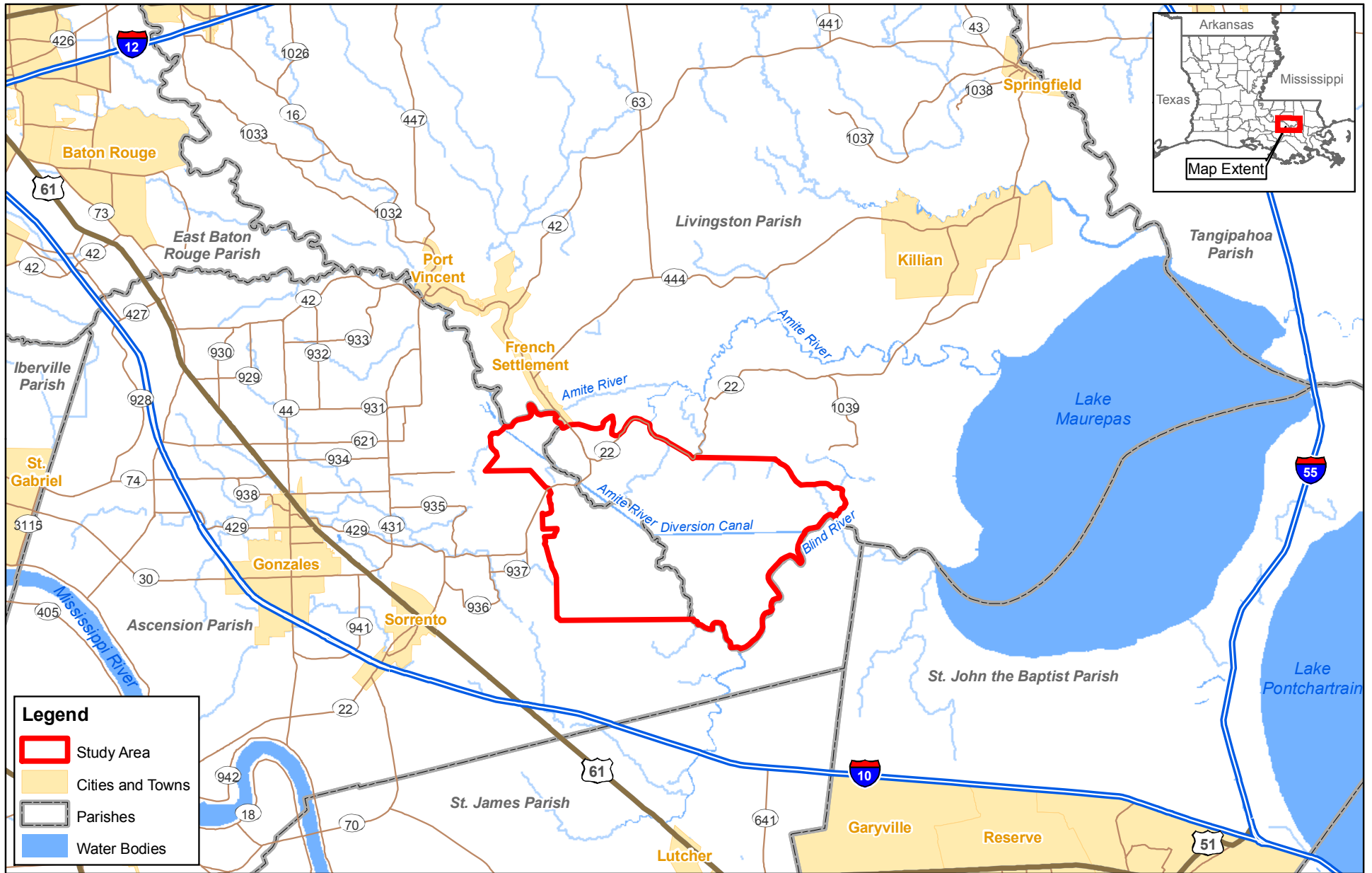
3.0 LOCATION AND GENERAL DESCRIPTION OF THE STUDY AREA

The LCA ARDC study area (Figures 1 and 2) is situated along the ARDC in Ascension and Livingston parishes, in the vicinity of Head of Island, Louisiana. The study area is bounded to the north by the old channel of the Amite River, Old River, Chinquapin Canal and Bayou Chene Blanc; to the east by the Blind River; to the south by the Petite Amite River and the New River Canal; and to the west by the Sevario Canal, Ascension Parish flood protection levees, and the Laurel Ridge Canal; and is located in the following sections:

- Township 9 South, Range 4 East, Sections 9-16, 22-27, and 34-36;
- Township 9 South, Range 5 East, Sections 7, 14-36;

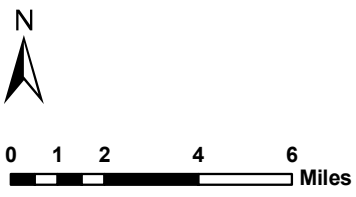
- Township 9 South, Range 6 East, Section 30;
- Township 10 South, Range 4 East, Sections 1-3 and 10-12; and
- Township 10 South, Range 5 East, Sections 2-11.

For planning purposes the study area has been divided into nine separate hydrologic subunits (Figure 2). Each subunit was developed based on hydrologic differences that exist throughout the study area due to natural and manmade hydrologic boundaries. These boundaries include natural topography such as dredged material berms and natural ridges, as well as made-made and natural canals.



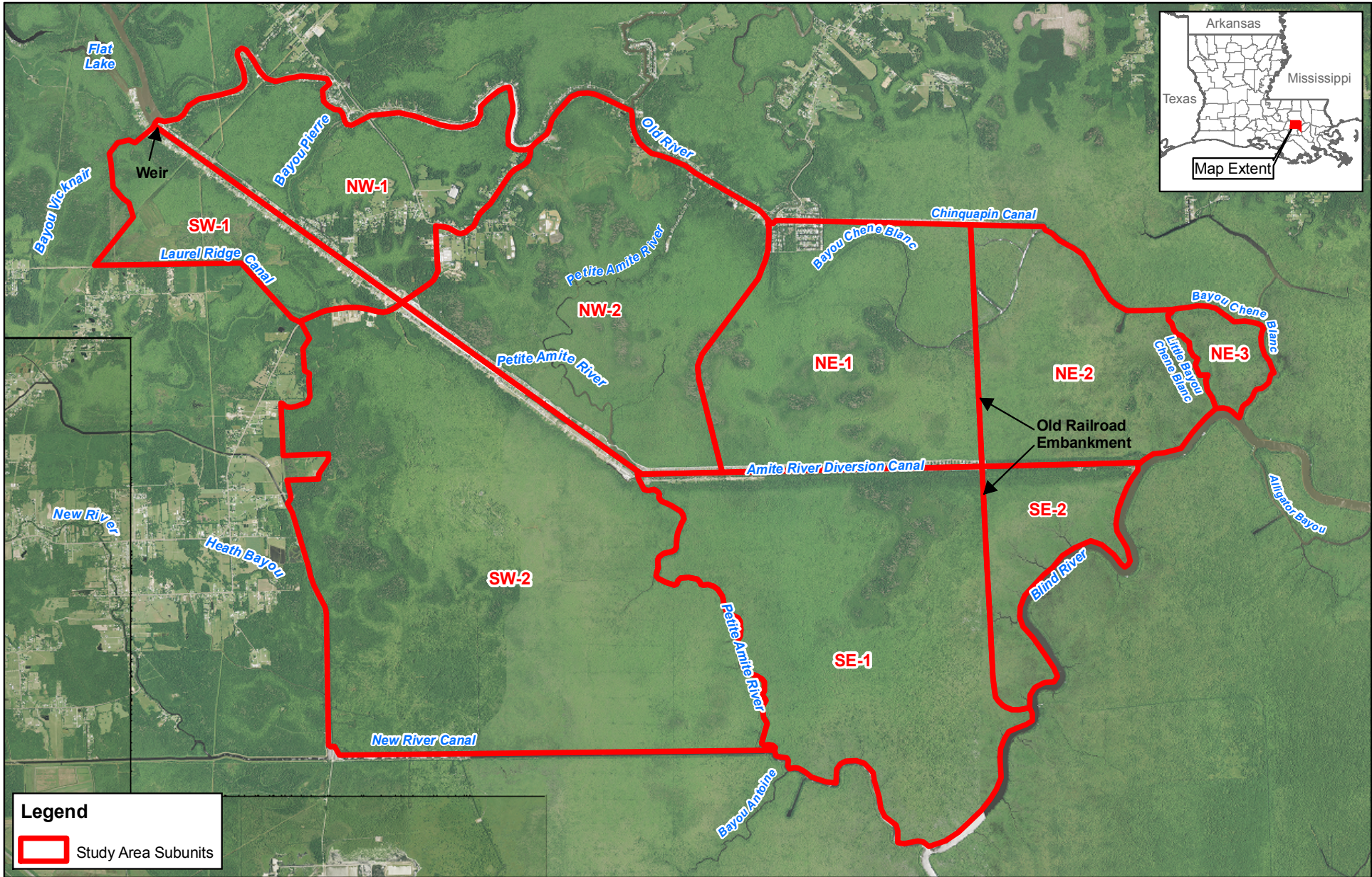
Legend

- Study Area
- Cities and Towns
- Parishes
- Water Bodies



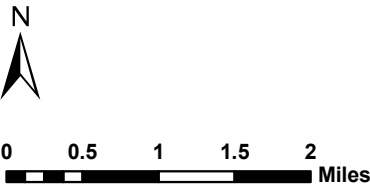
STUDY AREA REGION
 Amite River Diversion Canal Modification
 Ascension and Livingston Parishes, Louisiana

Figure: 1
Date: October 2009
Scale: 1:260,000
Source: USDA/GEC
Map ID: 27850108-1781



Legend

Study Area Subunits



STUDY AREA AND SUBUNITS
 Amite River Diversion Canal Modification
 Ascension and Livingston Parishes, Louisiana

Image: 2009 Ascension and Livingston Parishes USDA-FSA-APFO NAIP MrSID Mosaic

Figure: G
Date: October 2009
Scale: 1:80,000
Source: USDA/GEC
Map ID: 27850108-1780

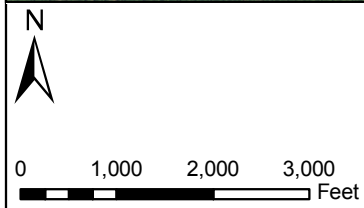
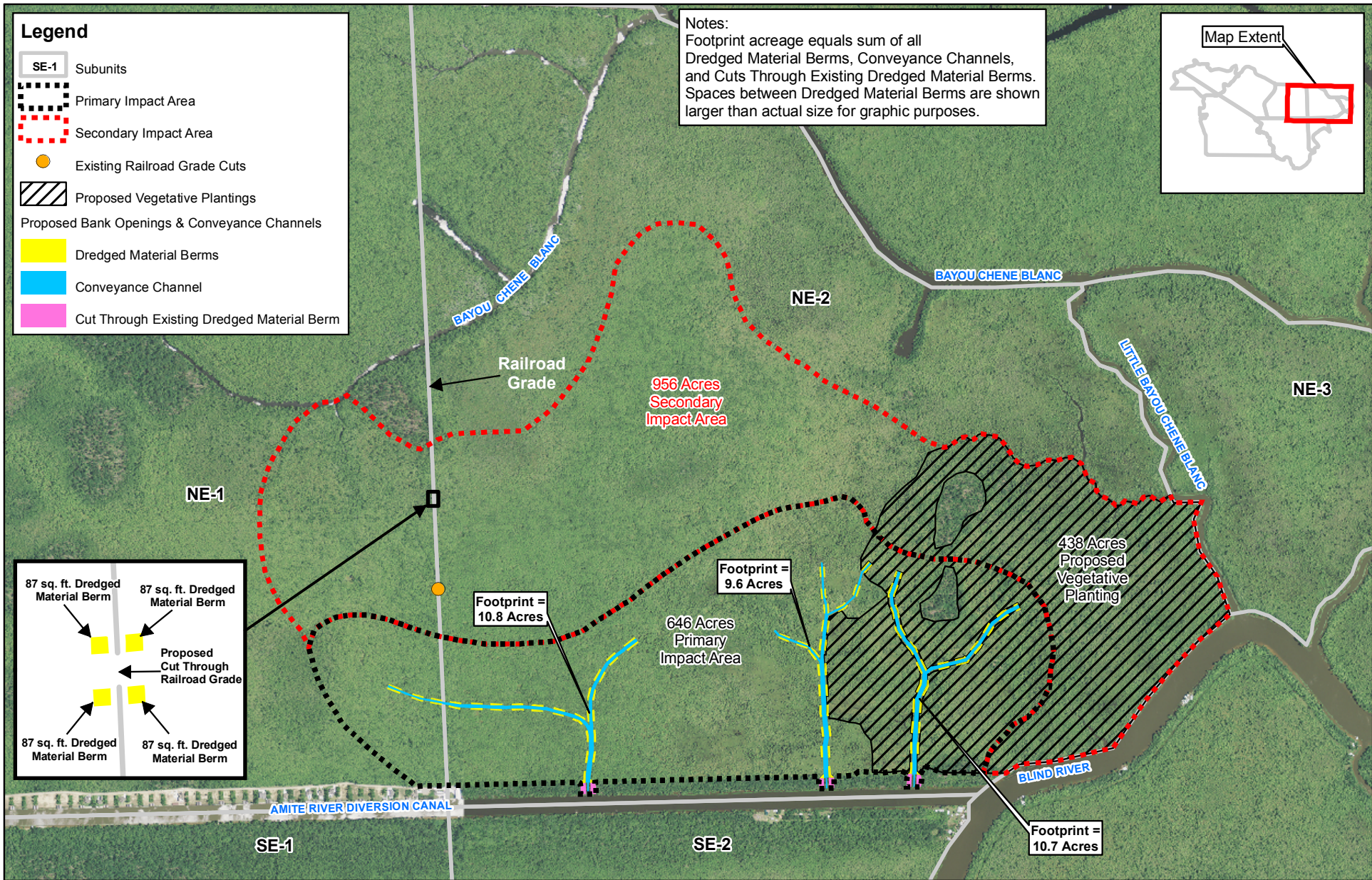
4.0 DESCRIPTION OF THE PROPOSED ACTION

Alternative 33 of the LCA ARDC Integrated Feasibility Report and Supplemental Environmental Impact Statement (SEIS) is the Tentatively Selected Plan (TSP), which is depicted in Figure 3.

Features of Alternative 33 (TSP) include:

- Three dredged material bank openings and three bifurcated conveyance channels in the north bank of the ARDC in NE-2 with the westernmost channel in the north bank of the ARDC also extending through the railroad grade into NE-1 to add connectivity between NE-1, NE-2, and the ARDC.
- Dredged material (5.0 acres) from the bank openings and the conveyance channel would be sidecast on both sides of the proposed channel. Gaps will be left in the disposal berms so sheet flow is not reduced.
- One cut would be created in the railroad grade approximately 0.9 miles north of the ARDC to improve sheet flow.
- Vegetative plantings of bottomland hardwood/freshwater swamp tree species on 5.0 acres of dredged material berms.
- Vegetative plantings of freshwater swamp tree species within 438 acres of the swamp floor.

Three naturally low areas or relict channels have been identified as potential bank opening and conveyance channel sites. Openings would enable impounded water to be drained from the swamp and provide hydrologic connectivity between the swamp and the ARDC. Additionally, the placement of a cut in the railroad grade would provide further hydrologic connectivity between NE-1 and NE-2. Openings would promote the introduction of freshwater, sediments, and nutrients into the swamp and allow the oxidation of sediments and removal of toxic metabolites. This alternative is anticipated to improve the degraded swamp and decrease the transition to marsh and ultimately, open water. This alternative represents the minimum effort that would meet the goals and objectives of the project. Alternative 33 would benefit approximately 1,602 acres of existing freshwater swamp, recreate 144 acres of freshwater swamp from freshwater marsh, and create 5.0 acres of upland habitat from dredged material placement.



ALTERNATIVE 33
 Amite River Diversion Canal Modification
 Ascension and Livingston Parishes, Louisiana

Image: 2009 Livingston Parish USDA-FSA-APFO NAIP MrSID Mosaic

Figure: 3
Date: December 2009
Scale: 1:24,000
Source: USGS/GEC
Map ID: 27850108-1868

5.0 GUIDELINES

1. GUIDELINES APPLICABLE TO ALL USES

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.

Response: 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 that these guidelines would impose additional requirements.

Response: 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.

Response: 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.

Response: No involuntary acquisition would be required for the proposed action. Oyster leases that are anticipated to be impacted would be acquired through the Louisiana Department of Natural Resources oyster lease acquisition program.

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.

Response: 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.

Response: Acknowledged.

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

Response: Acknowledged.

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

Response: Acknowledged.

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

Response: Acknowledged.

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

Response: Acknowledged.

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

Response: Acknowledged.

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

Response: Acknowledged.

h) extent of resulting public and private benefits.

Response: Acknowledged.

i) extent of coastal water dependency of the use.

Response: Acknowledged.

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

Response: Acknowledged.

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

Response: 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.

Response: 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.

Response: 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.

Response: Acknowledged.

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

Response: Acknowledged.

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

Response: Acknowledged.

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

Response: Acknowledged.

r) extent of compatibility with natural and cultural setting.

Response: Acknowledged.

s) extent of long term benefits or adverse impacts.

Response: Acknowledged.

Guideline 1.7 It is the policy of the coastal resources program 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.

Response: The construction of the ARDC altered the natural freshwater flow into the Maurepas Swamp. The intent of this proposed action is to offset the alteration of flow created by the ARDC dredged material placement areas, to provide hydrologic connectivity, and to promote the supply of sediment and nutrients to the swamp.

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

Response: The proposed action is 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 would be adversely impacted by the proposed action.

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

Response: No detrimental discharges of inorganic nutrient compounds would occur.

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

Response: There may be a temporary decrease in the dissolved oxygen concentrations during actual construction operations, as well as for a short time thereafter. Any effects are expected to be minor and would occur only during actual dredging activities. Dissolved oxygen levels would return to ambient levels following construction operations.

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.

Response: No adverse alterations of water bodies would result from the proposed action. Instead, improved hydrologic connectivity would result.

f) adverse disruption of existing social patterns.

Response: Any disruptions of social patterns would be associated with construction activities, and would be of a short-term nature.

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

Response: No alterations of the natural temperature regime are expected to.

h) detrimental changes in existing salinity regimes.

Response: The proposed action would not alter natural salinity regimes in or around the project area. Salt water introduced by storm tides currently becomes impounded behind the ARDC dredged material placement areas. By reestablishing hydrologic connectivity between the swamps and surrounding waterways, the proposed action would promote the flushing of salt water from freshwater swamps.

i) detrimental changes in littoral and sediment transport processes.

Response: No detrimental changes in transport processes would occur. Rather, the proposed action would improve the transport of sediments into swamps.

j) adverse effects of cumulative impacts.

Response: Cumulative impacts represent the effects of this proposed action in association with other past, present, and reasonably foreseeable future projects. This proposed action provides beneficial environmental effects and would not contribute to adverse effects of cumulative impacts.

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

Response: There would be a temporary increase in turbidity and suspended solids during construction (dredging and placement) of project features. However, any effects would be temporary and conditions would return to ambient following completion of construction activities.

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

Response: The intent of this proposed action is to alleviate blockages within the project area created by the construction of the ARDC and to promote hydrologic connectivity.

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

Response: There are no known toxic or pathogenic substance levels that are expected to significantly increase due to implementing the proposed action.

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

Response: Adverse alteration or destruction of cultural resources is not expected to occur.

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

Response: Adverse impacts to wetlands would not result. As demonstrated through Wetland Value Assessments, the proposed action would improve the quality of wetlands. There would be an overall net gain of 679 Average Annual Habitat Units (AAHUs).

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.

Response: No unique or valuable habitats would be adversely affected; the cypress-tupelo swamps of the area would be improved by the proposed action. The project area does not contain critical habitat for endangered species. The improvement in hydrologic connectivity would enhance the area for fish and wildlife habitats, including breeding areas. A portion of the Maurepas Swamp Wildlife Management Area located in the project area would not be adversely affected.

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.

Response: No public parks, shoreline access points, public works, or designated recreation areas would be adversely altered by the proposed action. Blind River, which abuts the project area is a designated scenic river, would not be adversely affected.

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

Response: The proposed action would not disrupt coastal wildlife or fishery migratory patterns. Rather, the restoration of hydrologic connectivity to the swamp may improve the ingress and egress of aquatic organisms between the swamps and surrounding water bodies.

s) land loss, erosion and subsidence.

Response: The proposed action would not adversely affect land loss, erosion, or subsidence. By improving the quality of swamp habitats through improved hydrologic connectivity and the resulting introduction of nutrients into the swamp, it is anticipated that improved subsurface growth of root masses would elevate ground levels.

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

Response: The proposed action is not expected to increase the potential for flood, hurricane, or other storm damage, or increase the likelihood of damage from such hazards.

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

Response: As demonstrated through Wetland Value Assessment determinations, the proposed action would improve the quality of the ecosystem in the project area. There would be an overall net gain of 679 AAHUs.

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 will 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 non compliance 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 will 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.

Response: 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.

Response: Generally, the project area would only be unavailable for use during construction activities. The project area would again be available for multiple uses following actual construction operations. 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.

Response: Acknowledged.

2. GUIDELINES FOR LEVEES

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

Response: The proposed action 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.

Response: The proposed action 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.

Response: The proposed action 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.

Response: The proposed action 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.

Response: The proposed action would not involve the construction of levees.

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.

Response: The proposed action would not involve the construction of levees.

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.

Response: Bifurcated conveyance channels would be dredged in wetlands to enhance the hydrologic connectivity through the expansion of the interface between the swamp and the ARDC. While this would convert a portion of the swamp to open water, the overall effect would be to improve the net quality of the wetland habitat in the project area.

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.

Response: Bifurcated conveyance channels would be dredged in wetlands to enhance the hydrologic connectivity through the expansion of the interface between the swamp and the ARDC. While this would convert a portion of the swamp to open water, the overall effect would be to improve the net quality of the wetland habitat in the project area.

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

Response: Acknowledged.

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

Response: Acknowledged.

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

Response: Acknowledged.

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.

Response: While disruption to multiple uses of the project area may occur during construction, multiple uses of the area would be restored following construction.

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

Response: The proposed action does 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.

Response: The proposed action would not traverse beaches, tidal passes, protective reefs, or other natural gulf shorelines.

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.

Response: Acknowledged.

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.

Response: Acknowledged.

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.

Response: The proposed action would not construct any channels or canals that would adversely affect salinity patterns. Rather, the proposed action would assist in flushing salt water introduced by storm tides from the swamp, thereby improving the health of the swamp.

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.

Response: While the proposed action would involve the construction of bifurcated conveyance channels, the channels would serve to enhance the quality of the wetlands and improve fish and wildlife habitats.

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.

Response: Acknowledged.

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

Response: Acknowledged.

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

Response: Acknowledged.

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.

Response: While the proposed action would involve the construction of bifurcated conveyance channels, the channels would serve to reestablish hydrologic connectivity, enhance the quality of the wetlands, and improve fish and wildlife habitats.

4. GUIDELINES FOR DREDGED MATERIAL DEPOSITION

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

Response: The placement of material dredged in association with the proposed action would not disrupt the movement, flow, circulation, or quality of water.

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.

Response: Material excavated from construction activities associated with the removal of the existing dredged material berm along the ARDC and the railroad grade would be placed in adjacent wetland areas to create bottomland hardwood (BLH) “islands” that would serve as refuges for wildlife during times of flooding. All material dredged during construction of the conveyance channels would be placed along

alternating portions of the channels to also create BLH habitat "islands." The BLH "islands" would be located to allow sufficient sheet flow to be conveyed from the swamp.

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.

Response: The proposed action would not impound wetlands but would reduce the degree of impoundment that currently exists and provide for a more natural hydrologic regime by restoring hydrologic connections.

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.

Response: The proposed action would not involve the placement of spoil on a marsh, oyster or clam reefs, or areas of submerged vegetation.

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.

Response: The proposed action would not create a hindrance to navigation or fishing, or hinder timber growth.

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.

Response: Best management practices would be employed to retain dredged material and minimize turbidity resulting from dredging activities.

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.

Response: The proposed action would not result in the alienation of state owned property.

5. GUIDELINES FOR SHORELINE MODIFICATION

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

Response: Acknowledged.

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

Response: Acknowledged.

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.

Response: Acknowledged.

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.

Response: Acknowledged.

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.

Response: The proposed action would not construct any piers, docks, or other harbor structures.

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.

Response: The proposed action would not construct any marinas or similar commercial or recreational developments.

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.

Response: Acknowledged.

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.

Response: Acknowledged.

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.

Response: Acknowledged.

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 will 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**

Response: Acknowledged.

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.

Response: Not applicable.

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.

Response: No wetlands would be filled for development purposes as a result of the proposed action. However, the proposed action is intended to promote the draining of impoundments created by the construction of the ARDC. The reestablishment of a more natural hydrologic connectivity would improve the quality of the swamp habitat.

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

Response: Not applicable.

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.

Response: The proposed action is intended to promote the draining of impoundments created by the construction of the ARDC. Revegetation of degraded swamp through the planting of seedlings is included as part of the proposed action.

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

Response: Acknowledged.

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.

Response: The proposed action would not adversely affect habitats on the Maurepas Swamp Wildlife Management Area, a portion of which is located within the study area. The proposed action has been coordinated with the Louisiana Department of Wildlife and Fisheries and U.S. Fish and Wildlife Service.

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.

Response: The proposed action would not alter barrier islands, beaches, isolated cheniers, isolated natural ridges or levees. The proposed action is anticipated to improve the quality of wildlife and aquatic species breeding/spawning areas through improvement of the quality of wetland habitats.

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.

Response: By relieving the impoundments currently adversely affecting the study area, the proposed action is expected to improve the quality of water in the swamps, including dissolved oxygen conditions. No traps for heavy metals are anticipated to occur. The proposed action may temporarily create low dissolved oxygen conditions due to increased turbidity associated in the immediate vicinity of construction activities. However, any such conditions would be of short duration and would return to ambient conditions after construction activities were completed.

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

Response: Not applicable.

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

Response: No underwater obstructions would result from the proposed action.

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.

Response: Acknowledged.

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

Response: Fill would be native material from adjacent areas. No contaminants are anticipated to be present.

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 will 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.

Response: The proposed action does not include the controlled diversion of sediment-laden water.

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.

Response: Material excavated from construction activities associated with the removal of the existing dredged material berm along the ARDC and the railroad grade would be placed in adjacent wetland areas to create bottomland hardwood (BLH) "islands" that would serve as refuges for wildlife during times of flooding. All material dredged during construction of the conveyance channels would be placed along the channels, with gaps, to also create BLH habitat "islands." The BLH "islands" would be located to allow sufficient sheet flow to be conveyed from the swamp.

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

Response: Acknowledged.

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 will 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.

Response: The proposed action does not include such diversions.

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

Response: Acknowledged.

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.

Response: The proposed action does 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.

Response: The proposed action does not include water control structures.

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.

Response: The proposed action does not include the creation of impoundments.

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

Response: Not applicable.

8. GUIDELINES FOR DISPOSAL OF WASTES

Response: The proposed action would not involve the disposal of wastes and, therefore, these guidelines are not applicable.

9. GUIDELINES FOR USES THAT RESULT IN THE ALTERATION OF WATERS DRAINING INTO COASTAL WATERS

Response: The proposed action would not involve the alteration of waters draining into coastal waters and, therefore, these guidelines are not applicable.

10. GUIDELINES FOR OIL, GAS, AND OTHER MINERAL ACTIVITIES

Response: The proposed action would not involve oil, gas, and other mineral activities and, therefore, these guidelines are not applicable.

Geotechnical investigations will be implemented during the Preconstruction Engineering, and Design (PED) phase of the LCA ARDC project. This project is located north of the ARDC, in Livingston Parish. There is only one land owner in this location, Blind River Properties Inc., owned by Mr. Glen Martin. We have contacted Mr. Martin to inform him of the proposed investigations, to which he has no objection. The soil borings needed for this project shall be 5 inches as required by the COE. To retrieve these samples the contractor will need an air boat, personal buggy, swamp buggy, and marsh excavator on site. All of which will be on marsh buggy tracks. These tracks disperse the weight of the vehicle to minimize adverse impacts on the

terrain on which it traverses. A site visit was made with the drilling contractor to determine and establish the path of least impact for boring operations. From this site visit boring locations were moved in line with one another and closer to the spoil bank, some as much as 1,000 feet. This reduced the amount of unnecessary travel to and from each boring; which will be made perpendicular to the Diversion Canal and in a direct path as possible to the next boring. The contractor is not limited to the straightest path, but the path which is least damaging to the surrounding swamp.

OTHER STATE POLICIES INCORPORATED INTO THE PROGRAM

Section 213.8A of Act 361 directs the Secretary of Department of Transportation and Development (DOTD), in developing the Louisiana Coastal resources Program (LCRP), 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 LCRP are identified and described in Appendix 1. A description of how these other authorities are integrated into the LCRP and coordinated during program implementation is presented in Chapter IV. Since all of these policies are incorporated into the LCRP, Federal agencies must ensure that their proposed actions are consistent with these policies as well as the coastal use guidelines (CZMA, Section 307).

CONSISTENCY DETERMINATION

Based on this evaluation, and the findings of the accompanying Integrated Feasibility Report and SEIS, the USACE, New Orleans District, has determined that the proposed is consistent, to the maximum extent practicable, with the State of Louisiana's Coastal Resources Program.

PREPARER

This document was prepared by GEC, Inc., for Dr. William P. Klein, Jr., Environmental Analysis Branch, Planning Division, of the New Orleans District of the U.S. Army Corps of Engineers.

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BOBBY JINDAL
GOVERNOR



ROBERT D. HARPER
SECRETARY

State of Louisiana
DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL MANAGEMENT

July 22, 2010

Dr. William Klein, Jr.
U.S. Army Corps of Engineers
New Orleans District
CEMVN-PM-RS
PO Box 60267
New Orleans, LA 70160-0267

RE: **C20100168**, Coastal Zone Consistency
New Orleans District, Corps of Engineers
Direct Federal Action
LCA Amite River Diversion Canal Modification
Livingston and Ascension Parishes, Louisiana

Dear Dr. Klein:

This office has received the above referenced federal application for consistency review with the approved Louisiana Coastal Resources Program in accordance with Section 307(c) of the Federal Coastal Zone Management Act of 1972, as amended. NOAA Regulations on Federal Consistency, at 15 CFR '930.41(a), allow 60 days for the review of Direct Federal Activities, and at '930.41(b) allow an additional 15 days with appropriate applicant notification. Please be advised that, by this letter, Interagency Affairs/Field Services Division is requesting the 15 day time extension. The new due date will be August 6, 2010.

A final determination will be made within the authorized time period. Please refer to the above Consistency Application number when responding to this letter. If you have any questions please call Carol Crapanzano of the Consistency Section at (225) 342-9425.

Sincerely,

A handwritten signature in black ink, appearing to read "Gregory J. DuCote".

Gregory J. DuCote
Administrator
Interagency Affairs/Field Services Division

GJD/JDH/cmc

cc: Renee Sanders, CPRA

Post Office Box 44487 • Baton Rouge, Louisiana 70804-4487
617 North Third Street • 10th Floor • Suite 1078 • Baton Rouge, Louisiana 70802
(225) 342-7591 • Fax (225) 342-9439 • <http://www.dnr.louisiana.gov>

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GOVERNOR



ROBERT D. HARPER
SECRETARY

State of Louisiana
DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL MANAGEMENT

August 9, 2010

Joan Exnicios
Chief, Environmental Branch
Corps of Engineers- New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

RE: **C20100168**, Coastal Zone Consistency
New Orleans District, Corps of Engineers
Direct Federal Action
LCA Ecosystem Restoration for Amite River Diversion Canal Modification, **Livingston**
and Ascension Parishes, Louisiana

Dear Ms. Exnicios:

The above referenced project has been reviewed for consistency with the Louisiana Coastal Resources Program in accordance with Section 307 (c) of the Coastal Zone Management Act of 1972, as amended. The project, as proposed in this application, is consistent with the LCRP, provided the Corps complies with the LDWF stipulations with which your agency concurred by email of July 28, 2010.

If you have any questions concerning this determination please contact Brian Marcks of the Consistency Section at (225) 342-7939 or 1-800-267-4019.

Sincerely yours,

Linda Pace for Gregory J. DuCote

Gregory J. DuCote
Administrator
Interagency Affairs/Field Services Division

GJD/JDH/bgm

cc: William Klein, COE-NOD
Bren Haase, OCPR
Dave Butler, LDWF
Chuck Spears, OCM FI
Don Burgess, Livingston Parish

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ROBERT D. HARPER
SECRETARY

State of Louisiana
DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL MANAGEMENT

August 4, 2010

Joan Exnicios
Chief, Environmental Branch
Corps of Engineers- New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

RE: **C20100168, Coastal Zone Consistency**
New Orleans District, Corps of Engineers
Direct Federal Action
LCA Ecosystem Restoration for Amite River Diversion Canal Modification, **Livingston**
and Ascension Parishes, Louisiana

Dear Ms. Exnicios:

The above referenced project has been reviewed for consistency with the Louisiana Coastal Resources Program in accordance with Section 307 (c) of the Coastal Zone Management Act of 1972, as amended. The project, as proposed in this application, is consistent with the LCRP, provided the Corps complies with LDWF stipulations and Terrebonne Levee and Conservation District stipulations that the Corps concurred with in email of July 28, 2010.

If you have any questions concerning this determination please contact Brian Marcks of the Consistency Section at (225) 342-7939 or 1-800-267-4019.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Karl L. Moy" with a flourish at the end.

Gregory J. DuCote
Administrator
Interagency Affairs/Field Services Division

GJD/JDH/bgm

cc: William Klein, COE-NOD
Bren Haase, OCPR
Dave Butler, LDWF
Charles Spears, OCM FI
Don Burgess, Livingston Parish

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BOBBY JINDAL
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE & FISHERIES

ROBERT J. BARHAM
SECRETARY

July 29, 2010

Gregory J. Ducote, Administrator
Louisiana Department of Natural Resources
Coastal Management Division
P.O. Box 44487
Baton Rouge, LA 70804-4487

RE: *Consistency Number: C20100168*
Applicant: Corps of Engineers - New Orleans District

Dear Mr. Ducote:

Personnel of the Louisiana Department of Wildlife and Fisheries Scenic Rivers Program have reviewed the additional information provided, regarding the LCA Amite River Diversion Canal Modification Project. Based upon this review, the following has been determined:

The project will not adversely impact the Blind River and, therefore, no Scenic River Permit or further authorization from the Scenic Rivers Program will be required.

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 225-763-3595 should you need further assistance.

Sincerely,

Keith Cascio
Scenic Rivers Coordinator

mw

c: Matthew Weigel, Biologist
Keith Cascio, Scenic Rivers Coordinator

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BOBBY JINDAL
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE & FISHERIES

ROBERT J. BARHAM
SECRETARY

July 6, 2010

Gregory J. Ducote, Administrator
Louisiana Department of Natural Resources
Coastal Management Division
P.O. Box 44487
Baton Rouge, LA 70804-4487

RE: *Consistency Number: C20100168*
Applicant: Corps of Engineers - New Orleans District
Notice Date: June 8, 2010

Dear Mr. Ducote:

The professional staff of the Louisiana Department of Wildlife and Fisheries (LDWF) has reviewed the notice referenced above. The following recommendations have been provided by the appropriate biologist(s):

Ecological Studies:

Portions of the proposed activity are within Maurepas Swamp Wildlife Management Area. No activities shall occur on any LDWF Wildlife Management Area or Refuge without obtaining a Special Use Permit from LDWF. Please contact Chris Davis at (985) 543-4777 for more information.

This project is located in the vicinity of the Blind River, a Louisiana designated Natural and Scenic River. The applicant must obtain authorization from the Louisiana Department of Wildlife and Fisheries, Scenic Rivers Program prior to initiating any of the proposed activities within or adjacent to the banks of the Blind River. Scenic Rivers Coordinator Keith Cascio can be contacted at 318-343-4045.

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 225-763-3595 should you need further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Kyle F. Balkum".

Kyle F. Balkum
Biologist Program Manager

Page 2
Application Number: C20100168
July 6, 2010

mw

c: Matthew Weigel, Biologist
Keith Cascio, Scenic Rivers Coordinator
Chris Davis, Biologist