Appendix G

RESPONSES TO COMMENTS

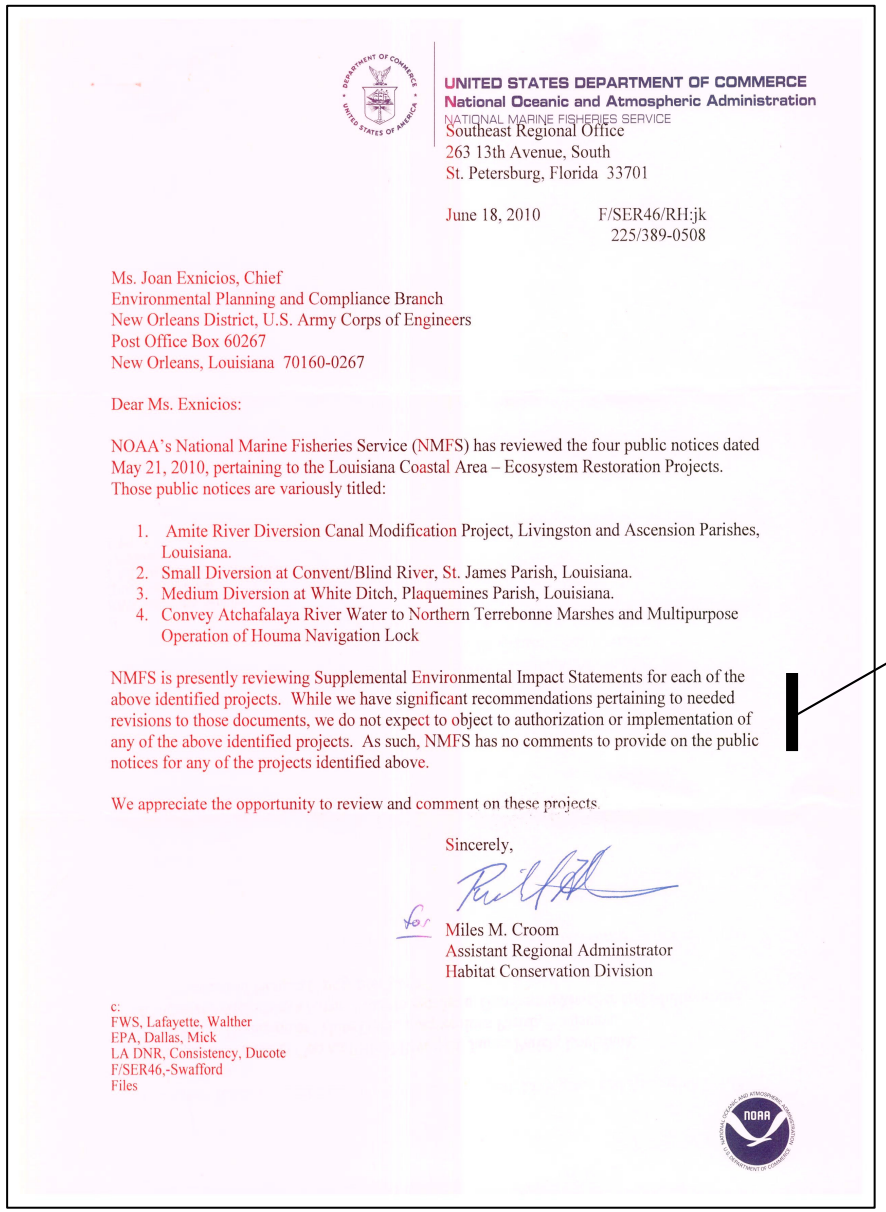
Scoping Comments/Responses

#	Comment	Response
1	Weir at French Settlement does not function properly and diverts excessive flow to ARDC, impairing lower Amite River.	Weir rehabilitation was considered as a measure in Section 3 of this study (WR-01). Changes to existing weir would have little effect on restoring degraded habitat.
2	Project should incorporate weir construction at downstream end of ARDC.	Weirs were considered as potential measures, but were screened out. This process is described in detail in Section 3 of the report (WC-01 through WC-08).
3	ARDC construction has disrupted natural hydrologic regime and damaged properties.	The objective of this project is to restore hydrologic connectivity to the area.
4	Endangered/protected species are present in the study area and vicinity.	Environmental consequences are discussed in detail in Section 5 of this report.
5	Scope of project should address wildlife and fisheries habitat.	Environmental consequences are discussed in detail in Section 5 of this report.
6	H&H modeling should be expansive, incorporate conditions from other projects, and/or involve stage data collection.	Other projects were considered in the Hydrology and Hydraulics analysis, and the study area chosen was considered adequate for the purposes of the analysis needed. The H&H analysis is included in Appendix L, Section 2.
7	Project should incorporate rehabilitation of weir at French Settlement.	Rehabilitation does not efficiently contribute to the accomplishment of the goals for this project. This was considered as a measure in section 3 of this study (WR-01)
8	Southwestern boundary of study area should be expanded.	The study area was increased from NE-1, NE-2, SE-1 and SE-2 to include areas SW-1 and SW-2.
9	Boat trips to reconnaissance study area are needed.	Several reconnaissance boat trips have been made.
10	Diversion canal stages are primarily influenced by Lake Maurepas.	Modeling shows that this is true.
11	Gap placement is an issue because of development on dredged material berms.	This was considered as a part of the project, and it was determined that the maximum benefit could be achieved without locating the gaps in developed areas.
12	Swamps south of Bayou Pierre are impaired from acidity caused by lack of hydrologic exchange.	Measures describing consideration given to Bayou Pierre are described in Section 3 (BO-01, BO-02, CD-02, CS-02, CS-03, CS-04, SR-02)
13	Project is greatly needed and should be completed on an expedited schedule.	We concur.

#	Comment	Response
14	Project should include vegetative planting or nature control.	These measures are included as a part of the TSP and are described in Section 3 (VP-01, VP-02).
15	Create hydrologic exchange between Bayou Pierre and ARDC on south canal bank.	Measures describing consideration given to Bayou Pierre are described in Section 3 (BO-01, BO-02, CD-02, CS-02, CS-03, CS-04, SR-02). No restorative opportunities exist within the Bayou Pierre area.
16	Colonial nesting waterbird rookeries are present in the study area.	Environmental consequences are discussed in detail in Section 5 of this report.
17	Draining swamp waters may impair water quality in ARDC and downstream.	No long-term water quality impacts are expected downstream of this project.
18	Project should operate under flood events, not merely normal flow or high flow conditions.	Design will operate in flood conditions.
19	Dredged material berm gapping has been implemented as part of waterfront development projects in study area.	Analysis was conducted including existing gaps as a part of this study, and the recommended plan of action was to create larger gaps to increase hydrologic connectivity.
20	Avoidance or minimization of forest habitat impacts should be considered during gap location.	The alternates were chosen based on the maximum net benefit possible, therefore minimization of impacts was considered.

Draft EIS Comments/Responses

Letter #1: National Marine Fisheries Service (NMFS)



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue, South
St. Petersburg, Florida 33701

June 18, 2010 F/SER46/RH:jk
225/389-0508

Ms. Joan Exnicios, Chief
Environmental Planning and Compliance Branch
New Orleans District, U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160-0267

Dear Ms. Exnicios:

NOAA's National Marine Fisheries Service (NMFS) has reviewed the four public notices dated May 21, 2010, pertaining to the Louisiana Coastal Area – Ecosystem Restoration Projects. Those public notices are variously titled:

1. Amite River Diversion Canal Modification Project, Livingston and Ascension Parishes, Louisiana.
2. Small Diversion at Convent/Blind River, St. James Parish, Louisiana.
3. Medium Diversion at White Ditch, Plaquemines Parish, Louisiana.
4. Convey Atchafalaya River Water to Northern Terrebonne Marshes and Multipurpose Operation of Houma Navigation Lock

NMFS is presently reviewing Supplemental Environmental Impact Statements for each of the above identified projects. While we have significant recommendations pertaining to needed revisions to those documents, we do not expect to object to authorization or implementation of any of the above identified projects. As such, NMFS has no comments to provide on the public notices for any of the projects identified above.

We appreciate the opportunity to review and comment on these projects.

Sincerely,

for Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division

c:
FWS, Lafayette, Walther
EPA, Dallas, Mick
LA DNR, Consistency, Ducote
F/SER46,-Swafford
Files

NMFSNO1-1: Supportive comment

Letter #2: Natural Resources Conservation Service (NRCS)

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302
(318) 473-7751
Fax: (318) 473-7626

June 21, 2010

Joan M. Exnicios
Chief, Environmental Planning & Compliance Branch
Attn: Dr. William Klein
Department of the Army
New Orleans District, Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160-0267

RE: Louisiana Coastal Area- Amite River Diversion Canal (ARDC) Modification Project Draft Feasibility Report and Supplemental Environmental Impact Statement for the Louisiana Coastal Area – Amite River Diversion Canal Modification Element of the Section 7006(E)(3) Ecosystem Restoration Projects Study, Ascension and Livingston Parishes, Louisiana

Dear Ms. Exnicios:

As requested in your public notice correspondence of May 21, 2010, referenced above, the Natural Resources Conservation Service (NRCS) has reviewed the information and offers the following comments.

NRCS supports the tentatively selected plan (TSP), alternative 33, to dredge openings in the existing ARDC spoil banks, construct bifurcated conveyance channels, and establish vegetative plantings in the study area. NRCS agrees that establishing hydrologic connectivity between the ARDC and the Western Maurepas Swamp would allow the swamp to drain during seasonal low-flow conditions in the Amite River and promote the germination and survival of baldcypress seedlings and other trees. Hydrologic connectivity will help halt the conversion of the swamp to marsh and open water.

NRCS appreciates the opportunity to provide comments. If you have any questions or need further information, please contact Britt Paul at (318) 473-7756 or Mike Nichols at (318) 473-7690.

Respectfully,

W. [signature] ACTING FOR

Kevin D. Norton
State Conservationist

cc: W. Britt Paul, ASTC/WR, SO, NRCS, Alexandria, LA
Mike Nichols, WB, NRCS, Alexandria, LA

Helping People Help the Land

An Equal Opportunity Provider and Employer

NRCNO1-1: Supportive comment

Letter #3: Seminole Tribe of Florida (STF)

SEMINOLE TRIBE OF FLORIDA
TRIBAL HISTORIC PRESERVATION OFFICE

TRIBAL HISTORIC
PRESERVATION OFFICE

SEMINOLE TRIBE OF FLORIDA
AH-TAH-THI-KI MUSEUM

HC-61, BOX 21A
CLEWISTON, FL 33440

PHONE: (863) 983-6549
FAX: (863) 902-1117

Dr. William Klein Jr.
U.S. Army Corps of Engineers
Planning, Programs, and Project Management Division
Environmental Planning and Compliance Branch
CEMVN-PM-RS
P.O. Box 60267
New Orleans, LA 70160-0267

THPO#: 006199

June 22, 2010

Subject: LCA Amite River Diversion Canal Modification, Louisiana

Dear Mr. Klein,

The Seminole Tribe of Florida Tribal Historic Preservation Office (STOF-THPO) has received the **New Orleans District Corps of Engineers'** project notification for the aforementioned project. Due to the fact that the project area is within the geographic area considered by the Seminole Tribe of Florida to be ancestral, aboriginal, or ceded (NHPA 1966, Section b1, and 36 CFR, Section 800.2), the STOF-THPO would like to request a copy of the Environmental Impact Statement for review prior to making any further comment. We thank you for the notification of this proposed project. Please reference ***THPO-006199*** in any future documentation about this project.

Sincerely,

Direct routine inquiries to:

Willard Steele,
Tribal Historic Preservation Officer
Seminole Tribe of Florida

Anne Mullins
Compliance Review Supervisor
annemullins@semtribe.com

Ah- Tah- Thi- Ki Museum, HC-61, Box 21-A, Clewiston, Florida 33440
Phone (863) 902-1113 ♦ Fax (863) 902-1117

STFNO1-1: All requested material was provided for the Seminole Tribe of Florida.

Letter #4: United States Department of the Interior (USDOI)

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
1001 Indian School Road NW, Suite 348
Albuquerque, New Mexico 87104

TAKE PRIDE IN AMERICA

ER 10/479
File 9043.1

June 29, 2010

Joan Exnicios
Chief, Environmental Planning & Compliance Branch
New Orleans District
U.S. Army Corps of Engineers
PO Box 60267
New Orleans, Louisiana 70160-0267

Subject: Draft Supplemental Environmental Impact Statement (DSEIS) for Amite River Diversion Canal (ARDC) Modification Element of the Section 7006(E)(3) Ecosystem Restoration Project, Feasibility Study, Louisiana Coastal Area (LCA), Ascension and Livingston Parishes, LA

Dear Ms. Exnicios:

The U.S. Department of the Interior has reviewed the subject document and offers the following comments in accordance with provisions of the National Environmental Policy Act (NEPA) of 1969 (83 Stat. 852; 42 U.S.C. 4321 et seq.), the Fish and Wildlife Coordination Act (FWCA, 48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), and the Endangered Species Act of 1973 (87 Stat. 884, as amended, 16 U.S.C. 1531 et seq.).

General Comments on the DSEIS

The DSEIS provides a good description of fish and wildlife resources within the study area, the purpose and need for the proposed action, program objectives, critical needs and opportunities, and potential risks and uncertainties. Given the substantial adverse impacts to the project area wetlands and their associated fish and wildlife resources that are expected to occur under future-without-project conditions, the U.S. Fish and Wildlife Service strongly supports authorization and implementation of the ARDC project, as it would improve environmental conditions through the creation and/or restoration of swamp habitats. Specifically, the LCA-ARDC project is designed to establish hydrologic connectivity between the ARDC and the western Maurepas Swamp. That connectivity would allow the swamp to drain during seasonal low-flow conditions in the Amite River, and thereby, promote the germination and survival of bald cypress (and other tree species) seedlings. In addition, nutrients and sediments would be introduced from the ARDC into the swamp during flood events and from runoff during localized rainfall events.

Letter #4 (cont'd): United States Department of the Interior (USDOI)

Nutrients and sediment delivered to the swamp would improve biological productivity and reduce the chances of further habitat degradation and swamp loss via conversion to open water.

The FWS's Lafayette Field Office supports implementation of the proposed project and provided the following fish and wildlife recommendations in our April 2010 Draft FWCA Report:

1. If authorized funding limits for this project are increased the FWS recommends that Alterative 39 be reconsidered as the potential future Tentatively Selected Plan (TSP).
2. If a proposed project feature is changed significantly or is not implemented within one year of the Endangered Species Act consultation letter, we recommend that the Corps reinitiate coordination with our office to ensure that the proposed project would not adversely affect any federally listed threatened or endangered species or their critical habitat.
3. Avoid adverse impacts to bald eagle nesting locations and wading bird colonies through careful design of project features and timing of construction. A qualified biologist should inspect the proposed work site for the presence of undocumented wading bird nesting colonies and bald eagles during the nesting season (i.e., February 16 through October 31 for wading bird nesting colonies, and October through mid-May for bald eagles).
4. To minimize disturbance to colonies containing nesting wading birds (i.e., herons, egrets, night-herons, ibis, and roseate spoonbills), anhingas, and/or cormorants, all activity occurring within 1,000 feet of a rookery should be restricted to the non-nesting period (i.e., September 1 through February 15, exact dates may vary within this window depending on species present). In addition, we recommend that on-site contract personnel be informed of the need to identify colonial nesting birds and their nests, and should avoid affecting them during the breeding season.
5. Because bald eagles are known to nest within the proposed study area, we recommend that an evaluation be performed to determine whether the project is likely to disturb nesting bald eagles. That evaluation may be conducted on-line at: http://www.fws.gov/southeast/es/baldeagle. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary and those results should be forwarded to this office.
6. Land clearing associated with project features should be conducted during the fall or winter to minimize impacts to nesting migratory birds, when practicable.
7. Further detailed planning of project features (e.g., Design Documentation Report, Engineering Documentation Report, Plans and Specifications, or other similar documents) should be coordinated with the FWS and other State and Federal natural resource agencies, and shall be provided an opportunity to review and submit recommendations on all the work addressed in those reports.

USDOINO1-1: Concur. The proposed action is recommended with all applicable project constraints in mind, such as the WRDA 2007 cost limit. The report identifies Alternative 33 as the TSP but the NER as the long term need for the area. If additional funding becomes available the team would propose to construct additional features of the NER. Coordination is currently underway with Livingston Parish to coordinate efforts between the proposed CIAP project and the LCA project to restore the portions of the study area included in the NER plan, but not in the TSP.

USDOINO1-2: Concur. The USACE will reinitiate coordination if the project is not implemented with one year from the date the ROD is signed.

USDOINO1-3: Concur. The following language was added to Section 5.7.2 of the main report: As a result of the public review process the USFWS has requested that a qualified biologist inspect the proposed worksite for the presence of undocumented wading bird nesting colonies and bald eagles during the nesting season (i.e., February 16 through October 31 for wading bird nesting colonies and October through mid-May for bald eagles).

USDOINO1-4: Concur. The following language was added to Section 5.7.2 of the main report: As a result of the public review process, the USFWS recommended minimizing disturbance to colonies containing nesting wading birds, all activity occurring within 1,000 feet of a rookery should be restricted to the non-nesting period (i.e., September 1 through February 15, exact dates may vary within this window depending on species present). In addition, the USFWS recommended that on-site contract personnel be informed of the need to identify colonial nesting birds and their nests, and should avoid affecting them during the breeding season.

USDOINO1-5: Appropriate steps to determine any potential impacts to bald eagles were taken and are documented in Section 4.2.7 in Volume II of the report.

USDOINO1-6: Concur. The following language was added to Section 5.7.2 in Volume II of the report: In addition, it has been recommended by the USFWS that construction activities and/or land clearing be conducted during the fall or winter to minimize impacts to nesting migratory birds, when practicable.

USDOINO1-7: Concur. All additional phases of this projects will be coordinated with the FWS and other State and Federal natural resource agencies, and shall be provided an opportunity to review and submit recommendations on all the work addressed in those reports.

Letter #4 (cont'd): United States Department of the Interior (USDOI)

8. A report documenting the status of implementation, maintenance and adaptive management measures should be prepared every 3 years by the managing agency and provided to the Corps, the FWS, National Marine Fisheries Service, U.S. Environmental Protection Agency, Louisiana Department of Natural Resources, Office of Coastal Protection and Restoration, and the Louisiana Department of Wildlife and Fisheries. That report should also describe future management activities, and identify any proposed changes to the existing management plan.

Specific comments on the SEIS

Page ES-xv, ES.10 Conclusions and Recommendations, Paragraph 1, Sentence 1 – This sentence should read ". . . includes the creation of three conveyance channels. . ."

Page 3-9, Table 3.1 Evaluation of Hydrologic Subunits, SE-2 Description – This section states that although the swamps within SE-2 are hydrologically connected to the Blind River, this area would benefit from additional freshwater, nutrients, and sediments, as well as flushing of severe saltwater intrusion events. The FWS recommends describing why such benefits are not currently being realized (from the existing hydrologic connection to the Blind River) and how additional benefits would be derived from connecting the area to the ARDC.

Page 3-16, Table 3.2 Management Measures Considered with Screening Results, CS-01 Clearing and Snagging of Bayou Chene Blanc NE-1/NW-2 – The screening result identified does not address clearing and snagging activities, but rather dredging activities. The FWS, therefore, recommends revising accordingly.

Page 3-72, Section 3.7 Plan Selection – Tentatively Selected Plan – Table 3.11 depicts the Project Delivery Team's (PDT) ranking of the Final Array of Alternatives. Because the PDT ranked Alternatives 39, 36, and 38 higher than Alternative 33, we recommend justifying why Alternative 33 was selected as the TSP over those higher ranked alternatives.

Page 3-90, Performance Measures for Monitoring, Performance Measure 2b: Number of cypress and tupelo saplings – Both cypress and tupelo are shade intolerant. The desired outcome should be revised to accurately depict the limits of this performance measure. Performance of this measure is dependent on achieving historic hydrologic patterns (extended dry periods) in the swamp and would be more probable in areas that allow sufficient light (i.e., deteriorated swamp habitats that are converting to marsh/open water). Conversely, achievement of this measure is unlikely in healthier portions of the project area.

Page 4-2, Section 4.1.2 Climate, Paragraph 2, Sentence 6 – This sentence should read "Minimum and maximum annual rainfall values for Reserve were reported as 34.1 and 84.3 inches, respectively."

Page 5-1, Section 5.0 Environmental Consequences – The FWS recommends addressing direct, indirect, and cumulative impacts of the proposed project to the bald eagle and colonial nesting wading birds in this section. In addition, we recommend including a discussion on how potential adverse impacts to those species will be avoided.

USDOINO1-8: Concur. An adaptive management status report will be provided.

USDOINO1-9: The referenced statement was corrected to indicate that three channels are included of four.

USDOINO1-10: The following description was added to Table 3.1 in Volume II, Section 3.2.3 of the report: *Sediment, water, and nutrient connectivity and inflow from the ARDC would benefit this area, including the flushing of saltwater intrusion after tropical storm events. While connectivity with Blind River does exist within the southern portions of this subunit, overall hydrologic connectivity between the ARDC and the northern portions of this subunit would provide additional nutrients and flush saltwater intrusion introduced by high-water events via Blind River. Therefore, this subunit was retained.*

USDOINO1-11: The screening result in Table 3.2 was revised to include the following statement: *Furthermore, clearing and snagging is not needed and would result in no added flow through the bayou.*

USDOINO1-12: The following language was added to Section 3.5.2 in Volume II of the report: *These are rankings based on restoration opportunities provided by each alternative and do not take into account project constraints such as funding limitations. The rationale for selection of the TSP is further discussed in Sections 3.7 and 3.7.11.1 of this report.*

USDOINO1-13: The desired outcome was slightly changed to state *"Performance of this measure is most dependent…"* It is understood that shade could potentially influence the outcome of this measure which is one reason why densitometer and hemispherical photography measurements, which estimate the amount of crown cover, are also being measured.

USDOINO1-14: The referenced statement was updated as follows: *Minimum and maximum annual rainfall values for Reserve were reported as 34.1 and 84.3 inches, respectively.*

USDOINO1-15: The following language was added to Section 5.7.1: *"With the continued degradation of the swamp and the eventual conversion to open water, feeding opportunities for bald eagles will decline. The loss of freshwater swamp trees will decrease bald eagle nesting habitat. Similarly, nesting trees available for colonial nesting wading bird colonies would also decline."* The following language was added to Section 5.7.2: *"The increase in tree canopy would improve bald eagle and colonial waterbird nesting habitat. In addition, the quality of habitat would be improved, which would increase the abundance of prey items for wildlife, including colonial nesting wading birds and bald eagles."*

Letter #4 (cont'd): United States Department of the Interior (USDOI)

Comments on the BA

The Gulf sturgeon is an anadromous fish that occurs in many coastal rivers and streams and estuarine waters from the Atchafalaya River to the Suwanee River, Florida. In Louisiana, Gulf sturgeon have been reported at Rigolets Pass, and rivers and lakes of the Lake Pontchartrain basin and adjacent estuarine areas. The proposed project does not occur within Gulf sturgeon critical habitat and that species has not been reported within the ARDC. Furthermore, while there may be minor impacts to Gulf sturgeon prey species those impacts are expected to be insignificant since only a small fraction of the total ARDC water bottom would be impacted. Thus, the FWS's Louisiana Field Office concurs with your determination that the proposed activity is not likely to adversely affect the Gulf sturgeon or its critical habitat.

Federally listed as endangered, West Indian manatees (*Trichechus manatus*) occasionally enter Lakes Pontchartrain and Maurepas, including their associated coastal waters and streams, during the summer months. Manatees, within Louisiana, have also been reported in the Amite, Blind, Tchefuncte, and Tickfaw Rivers, and in canals within the adjacent coastal marshes, they have also been occasionally observed elsewhere along the Louisiana coast. According to your BA, all contract personnel associated with the project would be informed of the potential presence of manatees and the need to avoid collisions with manatees. Temporary signs would be posted prior to and during all construction/dredging activities to remind personnel to be observant for manatees during active construction/dredging operations or within vessel movement zones (i.e., work area). In addition, siltation barriers, if used, would be made of material in which manatees cannot become entangled, and would be properly secured and monitored. If a manatee is sighted within 100 yards of the active work zone, special operating conditions would be implemented, including: no operation of moving equipment within 50 feet of a manatee; all vessels would operate at no wake/idle speeds within 100 yards of the work area; and siltation barriers, if used, would be re-secured and monitored. Once the manatee has left the 100-yard buffer zone around the work area on its own accord, special operating conditions are no longer necessary, but careful observations would be resumed. Accordingly, the FWS's Louisiana Field Office concurs with your determination that the proposed work is not likely to adversely affect the West Indian manatee.

No further endangered species consultation will be required for this project unless there are changes in the scope or location of the work, or construction has not been initiated within 1 year. If the work has not been initiated within 1 year, follow-up consultation should be accomplished with the FWS's Louisiana Field Office prior to making expenditures for construction.

We appreciate the opportunity to provide comments on the subject document. If your staff has additional questions regarding our comments, please contact FWS's Lafayette Field Office Karen Soileau at (337) 291-3132.

Sincerely,

Stephen R. Spencer
Regional Environmental Officer

Letter #4 (cont'd): United States Department of the Interior (USDOI)

cc: U.S. Environmental Protection Agency, Dallas, TX
Attn: Barbara Keeler
NOAA's National Marine Fisheries Service, Baton Rouge, LA
Attn: Mr. Richard Hartman
Louisiana Department of Wildlife and Fisheries, Baton Rouge, LA
Attn: Mr. Kyle Balkum
Louisiana Department of Wildlife and Fisheries, Natural Heritage Program, Baton Rouge, LA
Louisiana Office of Coastal Protection and Restoration, Baton Rouge, LA
Attn: Renee Sanders

Letter #5: National Marine Fisheries Service (NMFS)

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701

July 1, 2010 F/SER46/RH:jk
225/389-0508

Ms. Joan M. Exnicios, Chief
Environmental Planning and Compliance Branch
Planning, Programs, and Management Division
New Orleans District, U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160-0267

Dear Ms. Exnicios:

NOAA's National Marine Fisheries Service (NMFS) has reviewed the Pre-Decisional Draft Integrated Feasibility Study and Supplemental Environmental Impact Statement (SEIS) for the Louisiana Coastal Area Amite River Diversion Canal (ARDC) Modification Project, Ascension and Livingston Parishes, Louisiana. The document was transmitted for NMFS' review by letter dated May 21, 2010 from the Army Corps of Engineers, New Orleans District (NOD). The NOD's letter indicates that submittal of the document to NMFS initiates essential fish habitat (EFH) consultation as required by provisions of the Magnuson-Stevens Fishery Conservation and Management Act. It should be noted that initiation of consultation under provisions of the Magnuson-Stevens Fishery Conservation and Management Act is unnecessary as the project is neither located in an area categorized as EFH or projected to have an adverse impact on EFH.

The overall study area is located in Ascension and Livingston Parishes near Head of Island, Louisiana. The tentatively selected plan (Alternative 33) calls for excavation of three created earthen-bank openings and three bifurcated conveyance channels in the north bank of the ARDC. Dredged material from the bank openings and the conveyance channels would be side-cast in alternating berms so sheet flow is not reduced. One cut would be created in the railroad grade, approximately 0.9 mile north of the ARDC, to improve sheet flow. Vegetative planting of bottomland hardwood/freshwater swamp tree species is planned on 5.0 acres of dredged material berms. Vegetative plantings of freshwater swamp tree species is planned within 438 acres of swamp floor. The proposed action would restore more than 1,600 acres of freshwater swamp habitat, create 5.0 acres of bottomland hardwood habitat, and establish hydrologic connectivity between the ARDC and western Maurepas Swamp. The project is estimated to create 679 Average Annual Habitat Units, promote germination and survival of bald cypress and other tree species, and improve biological productivity.

The enclosed comments are provided in accordance with provisions of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.). Related correspondence should be directed to the

Letter #5 (cont'd): National Marine Fisheries Service (NMFS)

attention of Mr. Richard Hartman at the NMFS Southeast Region, Habitat Conservation Division office at: c/o LSU, Baton Rouge, Louisiana 70803-7535. He may be contacted by telephone at (225) 389-0508, ext. 203 or by e-mail at richard.hartman@noaa.gov.

Sincerely,

Miles M. Croom

Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division

Enclosure

cc:
FWS, Lafayette, Walther
EPA, Dallas, Ettinger
LA DNR, Consistency, Ducote
F/SER46, Swafford
F/SER4, Dale
NOAA PPI, Reid
Files

Letter #5 (cont'd): National Marine Fisheries Service (NMFS)

National Marine Fisheries Service Comments on the Draft
Supplemental Environmental Impact Statement
For the Louisiana Coastal Area (LCA)
Amite River Diversion Canal (ARDC) Modification Element of the Section 7006(E)(3)
Ecosystem Restoration Projects Study, Ascension and Livingston Parishes, Louisiana
Authorized under the 2007 Water Resources Development Act

General comments

The information presented in the Supplemental Environmental Impact Statement (SEIS) supports the determination that the Tentatively Selected Plan (TSP) is environmentally acceptable and would promote the long-term recovery and health of one of Louisiana's largest tracts of freshwater swamp and a major ecological component of the Lake Pontchartrain basin. Best management practices, environmental monitoring, and adaptive management as needed to protect fish and wildlife resources are specified in the SEIS. These measures should be retained as essential project components.

Without long term protection of the restored bald cypress-tupelo swamp, the stated objectives and benefits of the TSP may not be attained. Although the SEIS frequently mentions conservation easements will be included in the TSP, there is no assurance the easements will be sufficient to preclude timber harvest and other environmental damage. The final SEIS should be modified to stress the importance of effective conservation easements and to indicate any benefits derived from the project would be eliminated if timber harvest were allowed to occur.

Specific comments

SECTION 2.0 NEED FOR AND OBJECTIVES OF ACTION
2.3 Problems, Needs, and Opportunities
2.3.4 Effects

Page 2-15, lines 486-490 This section should explain how biomass production of herbaceous plants has increased in a severely nutrient-limited environment. Also, the section should be revised to state that biomass production has increased based on data from nutrient monitoring stations rather than "by nutrient augmentation at monitoring stations."

Page 2-15, lines 520-525 The statement: "The existing levels of productivity in the western Maurepas Swamp are as low as 50 percent or even 25 percent of average values compared to swamps that are managed or have more favorable hydrology." is confusing and needs clarification.

Page 2-16, line 536 NMFS suggests changing "lost to mortality and disease" to "lost to disease and other causes". We presume that "lost" and "mortality" are the same.

NMFSNO2-1: The referenced statement is qualified by stating that the monitoring station is located outside of the LCA-ARDC study area. Therefore it is not subject to the problems occurring within the LCA-ARDC study area, such as impoundment, lack of hydrologic connectivity, and a lack of nutrient input. The referenced statement was modified in Section 2.3.4.2 as follows: *"However, biomass production of herbaceous vegetation has been significantly enhanced (approximately 33 percent) by nutrient augmentation based on data from monitoring stations located within the western Maurepas Swamp, but outside of the study area."*

NMFSNO2-2: The referenced statement was reworded in Section 2.3.4.3 as follows: *"The existing levels of productivity in the western Maurepas Swamp are as low as 50 to 25 percent of average values found within swamps that are managed or have more favorable hydrology, and/or receive nutrient enrichment (Hamilton and Shaffer, 2001)."*

NMFSNO2-3: The requested change was made to the referenced statement.

Letter #5 (cont'd): National Marine Fisheries Service (NMFS)

Page 2-19, line 643 The basis for the statement: "It is a national priority to preserve and protect freshwater swamps" should be provided.

SECTION 4.0 AFFECTED ENVIRONMENT
4.2 Significant Resources
4.2.15 Socioeconomics and Human Resources

Page 4-65, lines 2222-2223 According to this section, a timber survey and appraisal was conducted in 1994 for 32,806 acres within the project area owned by Blind River Properties. Survey results revealed there were no areas of bald cypress and tupelo in the swamp with trees of sufficient size and volume to be considered merchantable. The final SEIS should be modified to identify whether and when the timber might be merchantable.

In all probability, timber value has increased over the past 16 years. Demand for smaller trees also may have increased based on current demand for cypress mulch. Based on these considerations and the 50-year project analysis period, the probability and consequences of timber harvest should be addressed in section 5.0 (Environmental Consequences) of the SEIS. Although noted in section 5.0 that little harvesting would take place based on planned conservation easements, the SEIS is unclear as to the extent to which easements would restrict timber harvest and which areas would be covered by such easements.

SECTION 5.0 ENVIRONMENTAL CONSEQUENCES

Page 5-11, Table 5.1 According to information contained in Table 5.1 (row 1, column 5; Future With Project Impacts), "little timber harvesting would take place in the future due to conservation easements." Although it is probable that a conservation easement would prohibit or severely restrict timber harvest, it is possible that limited or even complete removal of trees may occur, depending on the terms of the easement. As such, the table should be modified to note that timber harvest may be restricted depending upon the terms and conditions of the conservation easements and the areal extent of their jurisdiction. Alternatively, the terms of the conservation easements should be provided in the final SEIS and include language that clearly indicates that tree removal is prohibited.

5.15 Socioeconomic and human resources
5.15.12 Land Use Socioeconomics

Page 5-78, lines 2568-2571 According to this section, "conservation easements would be placed within the primary and secondary areas of impact for Alternative 33 (TSP), effectively restricting timber harvesting within portions of the study area over an indefinite period of time." As previously noted in our comments pertaining to Table 5.1, timber harvest may occur unless prohibited by terms and conditions of the conservation easements. Additionally, greater specificity in needed concerning the location and size of the "primary and secondary areas of impact." Although Figure 3.4 (page 3-37 of the SEIS), illustrates primary and secondary areas of impact for Alternative 33, it is unclear if this is, in fact, the area to be covered by conservation easements. To address these factors, the final SEIS should contain the terms and conditions of

NMFSNO2-4: The referenced statement was updated in Section 2.3.4.5 in Volume II of the report as follows: *Based on the findings of the 2004 LCA report, preserving and protecting freshwater swamp habitat is of national significance.*

NMFSNO2-5: The following statement was added to Section 5.15.12.2.1 in Volume II of the report: *It is anticipated that timber resources within the study area would not reach merchantable size over the fifty-year period of analysis.*

NMFSNO2-6: The language describing the restrictions stipulated by Flowage and Depositional, and Wetland Creation easements is found in the Real Estate Report in Appendix J. Statements will be added to Section 5 of the report referring to the Real Estate Report in Appendix J. Additionally, all references to "Conservation Easements" will be changed to identify the easements with the names specified in Appendix J.

NMFSNO2-7: The language describing the restrictions stipulated by Flowage and Depositional, and Wetland Creation easements is found in the Real Estate Report in Appendix J. Statements will be added to Section 5 and Table 5.1 of the report referring to the Real Estate Report in Appendix J. Additionally, all references to "Conservation Easements" will be changed to identify the easements with the names specified in Appendix J.

NMFSNO2-8: The language describing the restrictions stipulated by Flowage and Depositional, and Wetland Creation easements is found in the Real Estate Report in Appendix J. Statements will be added to Section 5 and Table 5.1 of the report referring to the Real Estate Report in Appendix J. Additionally, all references to "Conservation Easements" will be changed to identify the easements with the names specified in Appendix J.

Letter #5 (cont'd): National Marine Fisheries Service (NMFS)

any existing or planned conservation easements and should clearly describe, via narration and map, the areas that would be covered by such easements. Unless the planned bald cypress-tupelo forest can be restored and maintained over the life of the project, the desired objectives and predicted benefits may not be attained. This should be noted in the final SEIS.

Because of the importance of conservation easements with regard to protecting and restoring fish and wildlife habitat, the final SEIS should note that NMFS and other federal and state resource agencies will be, or have been, consulted during development of the terms and conditions and determination of the location and areal extent of the conservation easement(s).

Finally, the possibility that tree planting and project related extension of dry periods (to promote seed germination) could actually encourage timber harvest should be addressed in the final SEIS.

SECTION 8.0 CONCLUSIONS AND DETERMINATIONS

8.2 Recommended Plan

Page 8-1, line 43 NMFS recommends changing "Easements on 1,633 acres of land" to "Conservation easements on 1,633 acres of land." Also, as previously noted, the final SEIS should be clear concerning the location and size (acreage) of areas to be protected by conservation easements. In this regard, clarification is needed as to location of the 1,633 acre area mentioned.

NMFSNO2-9: The purpose of the easements is to prevent timber harvesting activities which will negatively impact this aspect of socioeconomics within the areas of impact. The language describing the restrictions stipulated by Flowage, Depositional, and Wetland Creation easements found in the Real Estate Report in Appendix J. Statements will be added to Section 5 of the report referring to the Real Estate Report in Appendix J. Additional discussion will also be added to Section 5 and Table 5.1 stipulating that easements will be in place, thereby restricting timber harvesting.

NMFSNO2-10: The language describing the restrictions stipulated by Flowage, Depositional, and Wetland Creation easements is found in the Real Estate Report in Appendix J. All references to "Conservation Easements" will be changed to identify the easements with the names specified in Appendix J.

Letter #6: Environmental Protection Agency (EPA)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

JUL 0 1 2010

Colonel Alvin B. Lee
New Orleans District
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Colonel Lee:

In accordance with the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the Environmental Protection Agency (EPA) Region 6 has reviewed the Corps of Engineers (Corps) May 2010, draft Supplemental Environmental Impact Statements (DSEISs) for the following four Louisiana Coastal Area (LCA) projects: Small Diversion at Convent/Blind River; Convey Atchafalaya River Water to Northern Terrebonne Marshes and Multipurpose Operation of Houma Navigation Lock; Medium Diversion at White Ditch; and Amite River Diversion Canal Modification. With this letter and enclosed Detailed Comments, EPA offers integrated ratings, comments, and recommendations on these DSEISs.

EPA greatly appreciates the Corps' ongoing interagency collaboration on the LCA program. Such teamwork is essential for leveraging and maximizing the resources available to address the pressing coastal issues facing Louisiana. EPA fully recognizes that the Congressionally-mandated timelines for the subject LCA studies, combined with the many other priority projects the Corps is engaged in place pressure on personnel and resources available for data gathering and analysis. While these factors have affected the rigor of analysis for the LCA studies, such shortcomings are to some extent mitigated by the fact that the subject projects tier from planning and analysis in the LCA programmatic EIS (2004) and in related coastal restoration efforts such as the Coastal Wetlands Planning, Protection, and Restoration Act.

EPA's comments are intended to help address remaining information gaps while striking a balance with the need to move forward expeditiously with coastal restoration projects in Louisiana. EPA is cognizant that uncertainty with major variables (particularly future relative sea level rise) hampers the ability to accurately predict the impacts and effectiveness of these and other coastal restoration projects. Robust monitoring and adaptive management programs are, therefore, essential. EPA also notes that unlike a new cross-basin levee or other large-scale artificial manipulation of the coastal landscape, these restoration projects generally attempt to mimic natural processes. Thus, the potential environmental downsides of proceeding with coastal restoration projects based on imperfect knowledge are generally more acceptable than would be the case for projects that pose significant potential adverse environmental impacts.

Letter #6 (cont'd): Environmental Protection Agency (EPA)

EPA Region 6 rates the four DSEISs as follows:

- **Small Diversion at Convent/Blind River: "EC-2".** (EPA has environmental concerns and requests additional information in the Final Supplemental Environmental Impact Statement.)

- **Convey Atchafalaya River Water to Northern Terrebonne Marshes and Multipurpose Operation of Houma Navigation Lock: "EC-2".** (EPA has environmental concerns and requests additional information in the Final Supplemental Environmental Impact Statement.)

- **Medium Diversion at White Ditch: "EC-2".** (EPA has environmental concerns and requests additional information in the Final Supplemental Environmental Impact Statement.)

- **Amite River Diversion Canal Modification: "LO".** (EPA's review has no objections and has not identified any potential environmental impacts requiring substantive changes to the preferred alternative.)

EPA continues to support the LCA program as an important step toward greater efforts to restore some semblance of sustainability to parts of coastal Louisiana. To that end, it is important to reiterate that the LCA program in general and these projects in particular represent near-term measures, and should not be mistaken for the larger and more comprehensive effort needed to address coastal wetland loss in Louisiana on the scale and scope warranted. The ongoing oil spill in the Gulf of Mexico and its impacts on Louisiana's valuable coastal wetlands and aquatic resources only underscore this point. Nevertheless, these and other LCA projects can be viewed as stepping stones toward larger and more aggressive projects, and offer valuable learning and adaptive management opportunities that will help in that regard.

The proposed White Ditch project represents the largest and most ambitious use of seasonal, high-river "pulsing" as a technique to increase the environmental benefits of diversions, while reducing potential impacts to existing fisheries. Of the four LCA projects discussed herein, the White Ditch diversion offers the greatest promise for coastal restoration benefits and advancing larger-scale projects. EPA also notes that the Amite River diversion canal gapping project and the proposed Convent/Blind River diversion are not mutually exclusive and could work in concert with the proposed LCA Hope Canal diversion. Although the Blind River/Convent diversion is further along in the NEPA process than Hope Canal, the latter offers a superior opportunity to address ecosystem needs in the Maurepas Swamp. Again, while these projects are not mutually exclusive, EPA encourages expedited implementation of the Hope Canal diversion. Finally, given the relatively high cost to environmental benefit ratio, EPA would not place a high priority on implementation of the Atchafalaya River conveyance project over other LCA restoration projects, such as White Ditch.

Letter #6 (cont'd): Environmental Protection Agency (EPA)

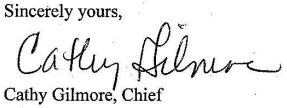
EPA appreciates that the Corps recognizes the need to monitor the extent to which the ongoing oil spill could affect study areas and aquatic resources covered by these four projects. It currently appears unlikely that the oil spill would directly affect the two proposed projects in the Maurepas Swamp, but the study areas for the other two projects have already or could be impacted by the spill. Accordingly, the Corps needs to be prepared to modify and/or further expedite such projects as needed, and perform supplemental environmental analysis where warranted.

The schedule and resource constraints discussed earlier have also affected EPA's ability to fully engage in the interagency development and review of these four LCA projects. EPA greatly respects the views of our state and Federal partner agencies with responsibilities and expertise pertaining to fish and wildlife impacts. EPA will defer to some extent to the recommendations of the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and Louisiana Department of Wildlife and Fisheries on any additional information and analysis needed for resources within their purview. EPA encourages the Corps to fully address any such needs identified by these agencies.

Moving forward, we would also point out the connection between the ongoing LCA effort to develop near-term restoration projects and the interagency effort to prioritize and expedite coastal restoration projects pursuant to the March 2010, Roadmap for Restoring Ecosystem Resiliency and Sustainability (Roadmap). The interagency process initiated by the Roadmap provides a valuable opportunity to identify the most promising LCA projects and focus limited resources to ensure that such projects are constructed in a timely fashion.

EPA appreciates the opportunity to review the DSEIS's. If you have any questions about the 309 Review Process, please contact Michael Jansky of my staff at (214) 665-7451 or by e-mail at jansky.michael@epa.gov. If you questions or wish to discuss the technical aspects of our comments, contact John Ettinger at (504) 862-1119. Please send our office two copies of the Final SEIS when it is sent to the Office of Federal Activities, EPA (Mail Code 2252A), Ariel Rios Building, 1200 Pennsylvania Ave, N.W., Washington, D.C. 20460.

Sincerely yours,



Cathy Gilmore, Chief
Office of Planning
and Coordination 6ENXP

Enclosure

Letter #6 (cont'd): Environmental Protection Agency (EPA)

DETAILED COMMENTS

ON THE DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENTS FOR THE SMALL DIVERSION AT CONVENT/BLIND RIVER; CONVEY ATCHAFALAYA RIVER WATER TO NORTHERN TERREBONNE MARSHES AND MULTIPURPOSE OPERATION OF HOUMA NAVIGATION LOCK; MEDIUM DIVERSION AT WHITE DITCH, AND AMITE RIVER DIVERSION CANAL MODIFICATIONS FOR THE LOUISIANA COASTAL AREA

COMMENTS

1. Small Diversion at Convent/Blind River DSEIS, May 2010

In general, additional freshwater and sediments to Maurepas Swamp provided by the proposed diversion is positive for the swamp. A potential downside to diverting existing surface waters and sediments is pollutants in the diverted water could impact the Blind River and Lake Maurepas. While such concerns are manageable, EPA would recommend additional information and analysis pertaining to water quality.

The 2001 Diversion into the Maurepas Swamps study by Lee Wilson & Associates, as well as Batelle's Assessments of Ecological Risks of Contaminants from a Proposed Reintroduction of Mississippi River Water into Maurepas Swamp (Phase I and II, 2005 and 2008, respectively), are cited as support that long term adverse impacts to water quality in the Maurepas Swamp, the Blind River, and Lake Maurepas are not anticipated. Unfortunately, the study area for these documents appears limited to the LCA Small Diversion at Hope Canal project area. While these assumptions may be applicable to a single 1500 cfs diversion, the application of these assumptions to a project diverting twice the amount of water (as in Small Diversion at Convent/Blind River) must account for the difference in scope. EPA notes, however, that if the diverted water flows through the swamp rather than directly to the Blind River and Lake Maurepas, and if the area of swamp is sufficient to reduce pollutants adequately, then this may not be a significant concern.

The LCA Ecosystem Restoration Study Programmatic EIS (2004) recognizes these concerns and suggests that the LCA Plan needs to consider other activities, initiate an aggressive coordination plan with the stakeholders involved, and ensure that all activities including the LCA Plan complement each other. EPA recommends that use of studies for support of these projects acknowledge the limitations and applicability. Additionally, it is suggested that cumulative effects determinations clarify if the assumptions stated are applicable to an existing baseline with no Maurepas Swamp projects other than the single proposed project, or that the cumulative effect includes the additive effects of all related Maurepas Swamp projects.

Letter #6 (cont'd): Environmental Protection Agency (EPA)

There is likely continued interest on the part of some landowners to log cypress in the Maurepas Swamp. Given the degraded state of the swamp throughout much of this area, there is a high risk that any such logging would be unsustainable. Such logging could conflict with or undermine this and other proposed restoration efforts for the Maurepas Swamp. Accordingly, this project should include as a non-structural measure a commitment to full and effective enforcement of Clean Water Act Section 404 and/or Section 10 of the Rivers and Harbors Act as such laws pertain to logging, particularly where unsustainable.

The ongoing Corps of Engineers West Shore Lake Pontchartrain Hurricane Protection Study is reviewing different levee alignments in the vicinity of this proposed project. At least one of these levee alignments ("Alignment D") would further enclose the cypress swamp that would be benefited by this proposed diversion. There is no discussion of how these two projects would or would not work in concert to achieve the desired ecosystem restoration goals. EPA is concerned that levee alignments which enclose wetlands can result in significant direct, indirect, and cumulative adverse ecological impacts that would be contrary to the LCA Plan in general and this project in particular. The supplemental EIS should explain how any such levee work would be coordinated with the proposed for Convent/Blind River diversion, such that the former does not conflict with or undermine the latter.

Specific comments:

a. It is understood that the Romeville diversion (Alt 2) is the preferred alternative and if implemented will use existing St. James Parish drainage canals. Insufficient data is available to determine if this design addresses the concerns raised in the 2001 Lee Wilson report on Diversions into the Maurepas Swamps regarding diverted Mississippi River water reaching the Blind River directly with most diverted water directly delivered to Lake Maurepas as result. EPA recommends hydrologic modeling efforts to better identify/quantify how water (sediment and nutrients) moves through the system and within each hydrologic unit under the proposed operation plan along with determination of water levels and swamp flood elevations on a refined scale to be incorporated into the hydrologic modeling. Similar comments have been made by the United States Fish and Wildlife Service (USFWS) in its draft Fish and Wildlife Coordination Act report.

b. Page 4-32 through 4-27: Water Quality Concerns – Tables of water quality information do not provide adequate information to support decisions of environmental consequences i.e., data over ten years old suggests that Blind River has levels of copper where mean value is both acutely and chronically toxic to aquatic life. However, no 303(d) listing noted currently. EPA recommends that analytical data be appropriately annotated as to location of monitoring point, hardness of water at that monitoring point and applicable hardness dependent criteria at that point. Also note if analysis yielded total or dissolved pollutant.

Letter #6 (cont'd): Environmental Protection Agency (EPA)

c. Pages 4-32: Water Quality Concerns - Descriptions of conditions for Lower Mississippi River found on Page 4-32 suggest that volatile organic carbon (VOC) analysis was performed. Data is not presented nor is an explanation of results provided.

d. Page 4-32 : Water Quality Concerns - According to the DSEIS, the LDEQ 2006 Integrated Report both the Primary Contact Recreation (PCR) and Secondary Contact Recreation (SCR) designated uses were fully supported, while Fish and Wildlife Propagation (FWP) and Outstanding Natural Resource (ONR) uses are not supported. The suspected causes of impairment for the FWP designated use were mercury, nitrate/nitrite, non-native aquatic plants, total phosphorus (TP), and turbidity. The suspected sources for mercury were listed as atmospheric deposition and unknown sources. Site clearance (land development or redevelopment) and flow alterations from water diversions were listed as the suspected sources for nitrate/nitrite, dissolved oxygen (DO), and TP. The suspected causes of impairment for the ONR designated use were sedimentation/siltation and turbidity, which are believed to be caused by site clearance.

(1) In light of these impairments, the SEIS should more clearly describe the impacts on the Blind River from diverted Mississippi River water through the swamp and thus to the River. In light of an annual estimate of sediment load to Blind River and Maurepas Swamp of approximately 505,000,000 kg/yr (Page 5-51, Line 2) discuss how sediment loading in return flows (throughput from swamp to River) could affect water quality in the study area. Here again, hydrology is key with respect to such issues. Work on the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) Maurepas Diversion project suggests that if the diversion is routed through a swamp receiving area of sufficient size virtually all sediment will be deposited in the swamp.

(2) Page 3-104, Line 28 and Appendix I: In light of current mercury impairments in the Blind River and mercury levels in diverted Mississippi River water, the SEIS should more clearly describe additional mercury loading and methylation risks to the swamp as well as to the Blind River and Lake Maurepaus. Appendix I (Adaptive Management and Monitoring Plan)(Page 10) and DSEIS suggest nutrients are a risk (Page 3-104, Line 28); however, mercury is not mentioned as a risk. EPA recommends periodic monitoring for mercury increases in swamp (sediments, fish tissue) or receiving waters (Blind River/Lake Maurepaus; sediments, fish tissue), along with consideration of what/if any impacts to aquatic life, migratory birds and listed species might be associated with such water quality issues. (Battelle. 2007. Limited Phase II Assessment of Ecological Risks of Contaminants from a Proposed Reintroduction of Mississippi River Water into Maurepas Swamp. Report from EPA Region 6. EPA Contract No. 68-C-03-041, Work Assignment No 4-40.)

Letter #6 (cont'd): Environmental Protection Agency (EPA)

(3) Page 3-104, Line 28 and Appendix I: In light of current metals water column levels in the Blind River and metals levels in diverted Mississippi River water, the SEIS should more clearly describe additional metals loading risks to the swamp as well as to the Blind River and Lake Maurepaus. Appendix I (Adaptive Management and Monitoring Plan)(Page 10) and draft SEIS suggest nutrients are a risk (Page 3-104, Line 28); however, metals not mentioned as a risk . EPA recommends monitoring for metals increases in swamp (sediments, fish tissue).

e. Page 3-102, Line 3-102 and Appendix I: Objectives stated in DEIS on Page 3-102 (beginning at Line 34) and Appendix I (page 10) are not in sync. Ensure that monitoring design supports objective. For example, Objective 1 (EIS) suggests decreases in nitrogen and phosphorus and DO increases but has no monitoring design associated. Objective 1 (Appendix I) does not include water quality at all. Recommend a separate objective for water quality or include as a risk with monitoring design.

f. Page 4-36, Line 10: States **4.2.3.2 Blind River and Maurepaus Swamp.** See no information on the swamp.

g. Page 3 – 37, Line 17: blind river should be revised to Blind River.

h. Page 3-16, Table 3-1: Comments for TS-3 to TS-6 are wrong. Comments column narrative needs to shift down.

i. Beginning at Page 5-1, **5 Environmental Consequences**: Ensure continuity throughout this section regarding the complimentary projects of Hope Canal and Amite River Canal Diversions. The Hope Canal project is typically discussed in the "no action" alternative. Studies have been performed on the concept of a 1500 cubic feet per second (cfs) diversion impacts to the swamp (as part of the Maurepas Diversion project under the CWPPRA program), the Blind River and Lake Maurepas. Ensure that implications of these studies are applicable to the Convent/Blind Diversion, since this preferred alternative is for a proposed diversion of 3000 cfs.

j. Readability would be enhanced if the document would spell out the meaning of acronyms upon first usage, i.e., ADCIRC, PCR, SCR, and ONR.

2. Convey Atchafalaya River Water to Northern Terrebonne Marshes and Multipurpose Operation of Houma Navigation Lock DSEIS, May 2010

WRDA 2007 included authorization for feasibility-level reports of six of the ten near-term elements in the 2004 LCA Report. Two of those six elements were determined to be hydrologically intertwined and the planning efforts were subsequently combined. Consequently, the projects known as Convey Atchafalaya to Northern Terrebonne Marsh and Multipurpose

Letter #6 (cont'd): Environmental Protection Agency (EPA)

Operation of the Houma Navigation Lock were integrated into the Pre-Decisional Draft Integrated Feasibility Study and EIS for the Convey Atchafalaya River Water to Northern Terrebonne Marshes and Multipurpose Operation of Houma Navigation Lock (LCA ARTM/MOHNL Project) and it is the later document, published in May 2010, to which these comments apply.

The objective of the project is to provide additional freshwater, nutrients, and sediments to the wetland communities of northwestern Terrebonne Basin, both north and south of the Gulf Intracoastal Waterway, which have exhibited accelerated wetland loss and ecosystem deterioration due to altered hydrology, reduced sediment and nutrient deposition, saltwater intrusion, tidally forced erosion, and subsidence. Currently, net primary productivity is declining and land loss is increasing, with existing fragmented emergent wetlands converting to shallow open water. According to United States Geological Survey (USGS) analyses, the overall rate of land loss in this area is 2,597 acres/year, or approximately 0.3 percent per year. If current conditions persist, it is predicted that 102,000 acres (18%) of remaining wetlands would decline over the next 50 years. Even more dramatic losses would be expected within several of the study subunits, with the loss of all emergent wetlands within the next 50 years.

As part of the feasibility study, multiple alternatives were developed incorporating a large array of treatment measures to be applied over the 1,100 square mile study area. The resulting Tentatively Selected Plan (TSP) is predicted to reduce the loss of 9,655 acres of marsh habitat (3,220 average annual habitat units (AAHUs)) at a cost of $311,030,000, including monitoring and adaptive management costs.

Of the alternatives studied, Alternative 2 is identified by the Corps and the interagency team as the TSP and it is also identified as the National Ecosystem Restoration Plan (NER). TSP fits the cost limitations of WRDA 2007 and is the most efficient plan from an incremental cost per average annualized habitat unit (AAHU) perspective. The TSP/NER plan involves construction of 56 structures and other water management features, as well as the opportunistic operation of the Houma Navigation Canal (HNC) Lock Complex, in an effort to address holistically the declining health of the Terrebonne marsh ecosystem, while meeting the planning objectives.

EPA supports the rationale provided for defining the NER plan and EPA further support the selection of Alternative 2 as the TSP. EPA does so in light of the urgency of addressing dramatic wetland habitat loss and degradation in the study area, while recognizing that there are a number of technical and design uncertainties yet to be worked through. The tight schedule under which this DSEIS was prepared resulted in publication of the document before all planning evaluations have been completed. While EPA believes this work should be completed prior to final plan approval, EPA does not believe that these analyses will alter the alternatives ranking. Therefore, EPA recommends that final approval of the TSP/NER plan be conditioned upon

Letter #6 (cont'd): Environmental Protection Agency (EPA)

completion of additional modeling and hydrology work needed prior to final project design and implementation of the plan. See the USFWS's May 2010 Draft Fish and Wildlife Coordination Act Report for details (Vol. III, Appendix B, pages 47-49).

EPA's support for the TSP is also predicated on the potential for adaptively responding to continually refined data, according to the management and monitoring plan (Vol. III, Appendix I). The incorporation of a monitoring plan and the commitment to adaptive management is a vital component for dealing with the uncertainties associated with the ecosystem modeling and for coordinating this project with other planned and future restoration and storm damage risk reduction projects in the area.

While this plan represents a valuable contribution to reducing the ecosystem degradation in the study area, a sustainable and resilient coastal ecosystem will quite likely require additional hydrologic manipulations. It is unlikely that this project alone will result in a sustainable ecosystem. The project features will not actively introduce additional sediment, nutrients, and freshwater from other sources. It will instead redistribute and more efficiently utilize existing freshwater within the system.

With that frame of reference, the project cost of $311,030,000 deserves careful consideration. Although the benefit area of the project is large and the ecosystem values to the nation are great, the cost is high and the benefits are incremental. These first cost benefits to the nation will only be realized if a future commitment is made to augment this project with additional hydrologic manipulations at a landscape scale.

This point cannot be overemphasized. As noted in the report, "[t]he project area is declining and imperiled. While the project cannot stop the natural processes of sea level rise, subsidence, and storm-caused erosion, the project can greatly slow down the disappearance of these landforms by decreasing the rate of decline of wetland habitat in the coastal system" (Vol. I, page 4-61).

Relative sea level rise (RSLR) evaluation curves were developed for three different sea level rise scenarios. The TSP/NER plan would provide benefits under the low and the intermediate RSLR scenarios. However, at the high RSLR rate, "marsh collapse is predicted to begin in 2017, when RSLR rate reaches 10 mm/yr. This rate represents a threshold believed to initiate rapid marsh collapse." None of the alternatives would prevent marsh collapse at the high RSLR rate. Once again, this is a large investment for benefits which will require additional treatment efforts to insure sustainability beyond the next seven years. This is too large an investment not to be part of a comprehensive plan of attack.

This project holds the promise of reducing additional wetland losses by some 9,655 acres. That is a far different scenario than "resulting in a net gain of 9,655 acres," as cited in various

Letter #6 (cont'd): Environmental Protection Agency (EPA)

sections throughout the reports, in both Volumes I and III. This is a significant correction which should be made in the Final EIS.

The correction should start at the top, with Objective 1: "Prevent, reduce, and/or reverse future wetland loss" and Objective 2: "Achieve and maintain characteristics of sustainable marsh hydrology." These goals are worthy of a more comprehensive approach with a larger scope than this near term project affords. As stated in the reports, the desired outcome seems to stop short of the objectives by establishing a measure of "reducing the rate of land loss compared to the pre-project condition." These outcomes appear to be achievable but they do not line up well with the more aggressive objectives. This is also a significant correction which should be made in the Final EIS.

Perhaps another project objective should be to optimize delta building, or at least to avoid negatively impacting ongoing Atchafalaya Delta building processes. The Atchafalaya River is building the only two actively growing deltas on the Louisiana coast. Although these active deltas are growing, they have not offset the land loss in this basin. However, they represent part of the ecosystem that is functioning in a positive trend and that should be valued and protected.

One of the more notable project uncertainties involves the construction and operation of the HNC lock complex for environmental purposes after the year 2025. The HNC lock complex is a feature of the Morganza to the Gulf project. If the lock complex is not constructed or if it is not operated as envisioned by this project, all benefits attributed to that feature will be unrealized. Accordingly, the Final EIS should provide an analysis of benefits (including the calculation of a benefit/cost ratio) both with and without the implementation of this feature.

The Final SEIS should clarify the implications for this project of the Corps' ongoing study to deepen the HNC channel. Also, the Final should clarify the lock closure conditions which were analyzed. In various sections of Volume III, those conditions are reported to include periods when the sector gates would not be closed, while other references infer that the modeling assumed constant closure. Finally, the Final SEIS should provide a plan for operating the sluice gates and it should explain how that operation would be anticipated to impact basin hydrology and consequent ecosystem health and sustainability.

Another area for further consideration involves statements in both Volumes I and III that the floating marshes in the upper Penchant Basin are currently stable and experiencing conditions where sufficient freshwater, nutrient, and sediment loads are being provided. Without further documentation, this conclusion would seem to overstate the current condition of these marshes. At a minimum, the vulnerability of these fragile marshes should be taken into account in the project planning. Based on a study conducted for EPA (Floating Marshes in the Barataria and Terrebonne Basins, Louisiana, Sept. 1994, Charles E. Sasser et al. (LSU-CEI-94-02)), notable changes to these marshes have occurred over the last several decades.

Letter #6 (cont'd): Environmental Protection Agency (EPA)

Six of the study sites in the Louisiana State University (LSU) project lie within the LCA ARTM/MOHNL Project study area. Based on habitat mapping and the results of other work by the same researchers, some floating marsh habitats have changed over the last several decades from one type of flotant to another type, or to open water. In the northern Terrebonne basin and upper Bayou Penchant basin, large areas of formerly *Panicum hemitomon* thick-mat flotant marsh converted to thin-mat *Eleocharis* flotant marshes or to open water. While much remains unknown as to what processes have operated on these areas to produce such dramatically different results, possible contributors include: altered hydrology due to canal construction and dredging; flux of organic material from the marsh due to hydrologic changes; nutria herbivory; nutrient dynamics due to altered hydrology; burning; and floods/storms.

With regard to compensatory mitigation, the report states that "[t]emporary negative impacts to the marsh associated with excavation of canals and management structures will be compensated for by creation of new marsh of better quality as a result of the reintroduction of freshwater, nutrients, and sediments into the Study Area" (Vol. I, page 4-68 and Vol. III, Section 3, page 49). The more likely case is that marsh degradation will be slowed by these measures. Additional marsh creation should be considered, however, if excess dredged material is available beyond that which is required for canal bank construction. In addition, all actions identified in the Clean Water Act Section 404(b) evaluation to minimize impact should be incorporated into the final plan.

Finally, EPA suggests that, to the degree possible, the Final EIS include an updated assessment of the Deepwater Horizon oil spill impacts to the Terrebonne basin ecological resources subject to this project proposal. The baseline conditions should be modified as necessary and a projection of the potential for the TSP/NER plan, or any individual features of other alternatives, for remediating those impacts should be considered. The TSP/NEP plan should be modified if the incorporation of other features could reasonably be expected to provide incremental benefits to protect the marshes from further oil spill damage under non-storm and/or storm conditions.

As a partner with the Corps of Engineers and others in the restoration of coastal Louisiana, EPA offers these comments in an effort to promote the most effective long-term wetlands protection and restoration strategy for the study area. This near term project could provide a platform for a sustainable coastal ecosystem, when viewed in tandem with measures to provide additional inputs of sediments and flows.

3. Medium Diversion at White Ditch DSEIS, May 2010

As noted in our cover letter, EPA supports the proposed White Ditch diversion. It is consistent with our long-standing priority of re-establishing Mississippi River inputs to help undo to some extent the major disruption of deltaic processes that underlies the ongoing loss of

Letter #6 (cont'd): Environmental Protection Agency (EPA)

coastal wetlands in Louisiana. EPA recognizes such river diversions have the potential to alter existing fisheries in the receiving areas due to changes in salinities, nutrients, sedimentation, and other factors. However, without efforts to restore deltaic processes by reintroducing riverine inputs, the productivity of such fisheries and coastal wetlands remains gravely threatened. The cost of inaction is continued rapid decline of wetlands and the related aquatic resources in deltaic Louisiana.

Nevertheless, EPA is sensitive to the potential effects of diversions on fisheries and the livelihoods built upon them. EPA recognizes the value of minimizing impacts where practicable and consistent with the pressing and long-term need to restore some semblance of sustainability to coastal Louisiana. There appear to be restoration approaches which could mimic natural deltaic processes and possibly minimize such impacts to existing fisheries. Specifically, EPA is referring to the concept of diversion "pulsing" which is intended to mimic seasonal riverine inputs historically associated high water events on the Mississippi. Such a "pulsing" operation is proposed for the White Ditch diversion, and entails high volumes of riverine input for months when stages and sediment concentrations are relatively high, followed by relatively limited "maintenance" inputs during the remaining months. This operation scheme has the promise of increasing sediment inputs, while reducing potential disruption of fisheries.

As noted in the cover letter, the capacity to precisely predict the effects of this and other coastal restoration projects is limited by uncertainty over major variables, particularly the future rate of relative sea level rise. This puts a premium on monitoring and adaptive management. At the programmatic level, the information gained through implementation of the White Ditch diversion would help test the diversion "pulsing" concept, thereby potentially assisting the larger-scale planning necessary to address coastal land loss in Louisiana. Thus, we believe the White Ditch project has the potential to both help restore coastal wetlands in the relative near term and support comprehensive coastal restoration in the future.

EPA appreciated the Corps' efforts to consider how different relative sea level rise (RSLR) scenarios could affect projected project benefits. Certainly, the central focus of this project (increasing sediment input into coastal marsh) is of primary importance for offsetting or slowing wetland loss due to RSLR. EPA agrees that diversion alternatives that provide greater sediment inputs could provide greater wetland benefits in that regard. However, the DSEIS might overstate the ability of the tentatively selected plan to counter more extreme rates of RSLR. Specifically, the DSEIS states that the tentatively selected plan could be used to "overcome high sea level rise". Such a statement should be tempered by the recognition that such high-end RSLR estimates would represent unprecedented environmental conditions and, therefore, our ability to accurately predict marsh response to such is limited. We would also note that the aforementioned quote appears inconsistent with the statement made on page ES-11: "…no evaluated alternative is able to offset the high rate of sea-level rise."

Letter #6 (cont'd): Environmental Protection Agency (EPA)

More information and analysis should be provided on potential inputs of nutrients and agrochemicals as a result of the proposed diversion. For example, data is available on the fluctuating levels of atrazine concentrations in the Mississippi River. This information could be combined with the proposed diversion operational scheme and alternatives to estimate potential atrazine inputs into the estuary. Similar analysis should be done for nutrient loading. EPA suggests the Final SEIS include a graph showing atrazine concentrations in the Mississippi River over the period of a year. Such a graph should also include a line showing proposed diversion discharge rates over the same period of time. This would highlight the relationship between diversion discharge rates and atrazine concentrations in the river. On the subject of atrazine, EPA asks the Corps to correct the apparent wording error on page 5-24: "The long-term effects of prolonged, low-level, exposure to atrazine on both plants and animals, especially amphibians, *would be currently being* investigated." (Emphasis added.) If such long-term effects are indeed currently being studied, EPA asks whether the Corps plans to review the findings of such investigation and if necessary incorporate that information into the operational scheme for this proposed diversion.

With respect to nutrients, dissolved oxygen, and other water quality issues, EPA recommends the Corps consider adding water quality parameters to the monitoring plan and adaptive management scheme. The goal would be to have the ability to detect and respond to any unforeseen adverse water quality impacts that could result from operation of the proposed diversion. This would include measurements of dissolved oxygen levels in open water areas, as well as monitoring for atrazine, metals, and any other pollutants of concern.

The DSEIS should provide additional information on potential salinity and associated habitat changes expected to occur due to the proposed diversion and alternatives. The final SEIS should include maps showing existing marsh types and anticipated changes in marsh types associated with the proposed project and alternatives. It would also be informative to include maps showing existing base-case isohaline lines and the anticipated changes in such over time (i.e., during the high-flow period, the middle of any "rebound" period, and low flow months.

Finally, as noted in our cover letter, EPA supports recommendations made by the National Marine Fisheries Service with respect to any additional analysis (including modeling) needed to adequately assess and disclose potential effects on fisheries.

4. Amite River Diversion Canal Modification DSEIS, May 2010

Both the TSP and the NER plan appear to be good projects from a cost-benefit perspective. EPA supports either alternative TSP or NER plan.

There is likely continued interest on the part of some landowners to log cypress in the Maurepas Swamp. Given the degraded state of the swamp throughout much of this area, there is

EPANO1-1: Supportive comment

EPANO1-2: Easements will be put into place to restrict forestry activities, as stated in Section 5 of the report. Appendix J of the report contains the Real Estate Plan which describes the easements that will be put into place for the areas of impact. In addition, Section 7 of the report stipulates that all compliance and coordination of applicable laws and restrictions that will be adhered to.

Letter #6 (cont'd): Environmental Protection Agency (EPA)

a high risk that any such logging would be unsustainable. Such logging could conflict with or undermine this and other proposed restoration efforts for the Maurepas Swamp. Accordingly, this project should include as a non-structural measure a commitment to full and effective enforcement of Clean Water Act Section 404 and/or Section 10 of the Rivers and Harbors Act as such laws pertain to logging.

The Fish and Wildlife Coordination Act report dated April 2010 and attached at Appendix B is not discussed in the DEIS. Additionally, pages appear to be missing from the report at Attachment B, namely, the USFWS recommendations.

Finally, the cumulative impacts do not include the additive impacts that would be expected from construction of this project in conjunction with the other two Maurepas Swamp diversion projects – Hope Canal and Convent/Blind River.

EPANO1-3: The FWCAR is discussed in Section 7.2.17 in Volume II of the report. The updated version of the FWCAR will be included in all subsequent submittals.

EPANO1-4: Cumulative impacts discussions include similar restoration projects within or near the study area. These discussions are found throughout Section 5 in Volume II of the report.

Letter #7: Louisiana Department of Wildlife and Fisheries (LDWF)

BOBBY JINDAL
GOVERNOR

State of Louisiana

DEPARTMENT OF WILDLIFE AND FISHERIES
OFFICE OF WILDLIFE

ROBERT J. BARHAM
SECRETARY

JIMMY L. ANTHONY
ASSISTANT SECRETARY

July 1, 2010

Attn: Dr. William Klein Jr.
Planning, Programs, and Project Management Division
Environmental Planning and Compliance Branch
United States Army Corps of Engineers
P. O. Box 60267
New Orleans, LA 70160-0267

RE: *Application Number: draft EIS Amite River Diversion Canal Modification*
Applicant: U.S. Army Corps of Engineers-New Orleans Division
Notice Date: May 21, 2010

Dear Mr. Serio:

The professional staff of the Louisiana Department of Wildlife and Fisheries (LDWF) has reviewed the above referenced notice. Based upon this review, the following has been determined:

In light of cost limitations, LDWF supports the implementation of Alternative 33; however, if additional funding became available, LDWF would urge the lead agencies to select Alternative 39.

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 Habitat Section biologist Matthew Weigel at 225-763-3587 should you need further assistance.

Sincerely,

Kyle F. Balkum
Biologist Program Manager

P.O. BOX 98000 • BATON ROUGE, LOUISIANA 70898-9000 • PHONE (225) 765-2800
AN EQUAL OPPORTUNITY EMPLOYER

LDWFNO1-1: The proposed action is recommended with all applicable project constraints in mind, such as the WRDA 2007 cost limit. Coordination is currently underway with Livingston Parish to utilize any potential funding received by the proposed CIAP project to restore the portions of the study area included in the NER plan, but not in the TSP.

LDWFNO1-2: The USACE has coordinated with the LDWF that the proposed action would not occur within the Maurepas WMA. Hence, a Special Use Permit would not be required.

LDWFNO1-3: The USACE has coordinated with the LDWF that the proposed action would not occur within the Blind River Scenic River. Hence, authorization from the LDWF is not required.

Letter #7 (cont'd): Louisiana Department of Wildlife and Fisheries (LDWF)

mw

c: Matthew Weigel, Biologist
Chris Davis, Biologist
Keith Cascio, Scenic Rivers Coordinator
EPA, Marine & Wetlands Section
USFWS Ecological Services

Letter #8: Louisiana Department of Environmental Quality (LDEQ)

LDEQ Comments regarding US ACOE Proposal to Modify the Amite River Diversion Canal
07/05/2010

Louisiana Department of Environmental Quality (LDEQ) comments regarding the Corps of Engineers' Amite River Diversion Canal Modification Project, LA, May 2010

General Comments:

1. LDEQ supports the Corps' efforts to restore the wetland habitat of the Maurepas Swamp and its surrounding areas. Overall, the project will be beneficial to the area.

2. LDEQ is aware that the LCA is investigating other projects in the area. One of these projects, the Small Diversion at Convent/Blind River, is related to the Amite River Diversion Canal project. The Amite River Diversion Canal flows into the Blind River. In addition, as part of LDEQ's Dissolved Oxygen TMDL for the Lower Amite River, LDEQ has recommended that the weir on the Amite River Diversion Canal be repaired to establish more flow down the Lower Amite River. This should result in improved water quality in the Lower Amite River. In addition, repairing the weir may provide a route to input nutrients along the northern rim of the Maurepas Swamp. The cumulative effects of the two projects proposed by the Corps and the repair of the weir should be evaluated. LDEQ may be able to provide assistance with the evaluation or projection of water quality produced as a result of these projects.

LDEQNO1-1: While we recognize that rehabilitation to the weir might be necessary, it was determined that the performance of the weir, with regard to the LCA ARDCM would have little to no effect on restoring the degraded portions of the LCA ARDCM study area. During the preliminary phases of the plan formulation process, rehabilitation of the weir was considered and subsequently screened out due to a lack of restoration opportunities this measure would provide. In addition, rehabilitation of the weir would fall within operations and maintenance responsibility of the local sponsor (Ascension Parish), and would not be within the authorization of the LCA ARDCM.

From: Tom Killeen
Sent: Friday, June 25, 2010 1:52 PM
To: 'lca.ardcm@ucace.army.mil'; Renee Sanders
Subject: LCA ARDC Modification Project

Dear Renee and Bill;

Thank you for the opportunity to participate in the public meeting conducted last night (June 24, 2010) in French Settlement regarding the LCA Amite River Diversion Canal (ARDC) Modification Project. I feel the meeting went very well and your presentations were well prepared, presented and received. LDEQ was pleased to have previously provided a no objection comment to the project on or about June 14, 2010. As both a water quality professional and longtime resident of the ARDC development I am excited about the prospects of this restorative project. The hardwood swamps adjacent to both sides of the ARDC have been in a fairly rapid decline since the 1963 conclusion of the canal construction. In conjunction with the Blind River Diversion Project I believe we are on the right path to restoring these areas to their pre-canal conditions of water flow.

At the meeting I gave you a hard copy of the LDEQ Draft Lower Amite River Watershed TMDL For Biochemical Oxygen-Demanding Substances and Nutrients. Please accept the following link for that document.

http://www.deq.louisiana.gov/portal/portals/0/technology/tmdl/pdf/Draft_Lower_Amite_River_040303_TMDL_Report_080609.pdf

Likewise the large tracts of hardwood swamp within the Lower Amite River Watershed (LARW) have experienced a less acute but equally detrimental decline as result of the ARDC project. In the Technical Summary to the TMDL we state, "LDEQ does recommend that repairs be made to the weir located near the head of the Amite River Diversion Canal. This should re-establish a more reasonable flow through the Lower Amite River."

Further, LDEQ concludes on page 31 of the document, "It is also recommended that the weir dividing flow from the Upper Amite River to the Lower Amite River and the Amite River Diversion Canal be fixed. The weir originally diverted 70% of the flow down the Lower Amite River and 30% of the flow down the Diversion Canal. Over time the weir has eroded (settled). Presently most of the flow diverts down the Diversion Canal. The current lack of flow down the Lower Amite River is a serious source of DO and nutrient impairment."

The LARW has an abundance of natural cuts, gaps, bayous, ditches, etc. in place but suffers from a lack of water to reach them and feed the cypress/tupelo gum hardwood swamp habitats that abound on both sides all the way to Lake Maurepas. A project to restore flow to the LARW by elevating the upper weir structure would be an inexpensive, immediate and permanent fix to a system much larger than the ARDC project area. While I acknowledge that this issue is not within the scope of the ARDC Modification Project I do think we can all agree on the interconnection and interdependency.

I would respectively submit that with a budget of 10 million dollars and an anticipated expense of 7.7 million dollars, an amendment to this project that covered the cost of including within the feasibility study an elevation of the upper weir to a level 12-24 inches above its current height would result in a benefit of this overall restorative project by at least two-fold, while staying within the 10 million dollar cap.

While we welcome the opportunity to pursue future efforts to this end, the idea of accomplish the primary goal of our TMDL within the scope of this project is very compelling. Thus any dialogue we can initiate to facilitate restoration of the Lower Amite River Watershed, either now or in the near future, would be greatly appreciated. I believe Mr. Hudson with GEC has already conducted sufficient hydrologic modeling of flow dynamics at the weir to justify inclusion of a Lower Amite River component.

Again, thank you and your staff for your time and attention to the ARDC Modification Project and any future efforts to partner on a similar endeavor within the Lower Amite River Watershed.

Tom Killeen

LPDES Permit & Water Quality Certification Manager

Office Of Environmental Services, LDEQ

Letter #9: Non-Government Organization (NGO)

July 6, 2010

Colonel Alvin Lee
Commander
New Orleans District U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

Re: LCA Draft Feasibility Reports and Draft Environmental Impact Statements

Dear Colonel Lee:

Thank you for the opportunity to review and comment on the LCA Draft Feasibility Reports and Draft Environmental Impact Statements. Section 7006(e)(3) of the 2007 WRDA identifies six near-term restoration projects that Congress has authorized for construction subject to, among other things, completion of feasibility studies and a Chief's Report before December 31, 2010. The draft Feasibility Report covers five of those six projects:

- Medium Diversion at White Ditch
- Convey Atchafalaya to Northern Terrebonne Marsh/Multipurpose Operation of the Houma Navigation Canal (HNC) Lock (two projects merged)
- Small Diversion at Convent/Blind River
- Amite River Diversion Canal (ARDC) Modification

Although we were disappointed that the initial deadline of December 31, 2008 was missed, we commend the U.S. Army Corps of Engineers and the State of Louisiana in working diligently to meet the December 31, 2010 as directed by WRDA. It is imperative that these projects are constructed as quickly as possible and our organizations are available to assist to ensure the urgency of these projects is understood in Washington, D.C. and in the State.

We understand the need for additional analysis and the increasing uncertainty of the Terrebonne Basin Barrier Shoreline Project considering the Deepwater Horizon oil spill. However, the Deepwater Horizon oil spill has also shown the urgent need to restore and maintain our barrier island chains to protect the interior marshes from multiple threats, including massive oil spills and hurricanes. We request the USACE to distribute an updated timeline for completion to the public and that timeline ensures that this feasibility report is completed at the earliest possible time with the understanding that some details may have to be modified during the engineering, design and construction phase. We request that the Chief's Report also address an extended deadline for the

Letter #9 (cont'd): Non-Government Organization (NGO)

Terrebonne Basin Barrier Shoreline project that will not be meeting the required WRDA deadline due to these extraordinary circumstances.

We also applaud the USACE and the State of Louisiana for incorporating Monitoring and Adaptive Management Plans at the feasibility stage of project planning. We support the use of project funding to conduct monitoring and expand research and development on these restoration projects to provide lessons learned and flexibility in operations and management. We offer our assistance as the Monitoring and Adaptive Management Plans continue to develop.

Two of the four projects (ARDC Modifications and Atchafalaya to Terrebonne/HNC Lock) were restricted from providing large scale benefits due to the cost constraints authorized in WRDA 2007. The USACE and State of Louisiana boldly expanded the Medium Diversion at White Ditch beyond its cost authorization to adequately address the sustainability of the study area. We commend the USACE and State for this action. We would have liked to see the same initiative to address the concerns of the Maurepas and Terrebonne Basins. Many large-scale restoration measures were considered in these studies, but dismissed due to costs. The ARDC Modification Project only addressed one of the four identified degraded hydrologic units and the Atchafalaya to Terrebonne/HNC Lock Project only reduces the land loss rate by 10 percent over the 50 year period. Much larger scale restoration in these basins is needed. In these instances, the project did not truly meet the objectives of the project in the entire study area. A phased approach to project implementation should be provided that evaluates all needed restoration measures to meet the full objectives of the study without any cost constraints, identifies the critical first steps, and identifies phased project implementation based on available funding.

It is imperative that the USACE complete the Feasibility Reports and the Chief's Report for these LCA projects before the end of the year. Specific comments on each project are enclosed. We believe these comments could be addressed during the engineering, design, construction or adaptive management phases of the projects and will not delay the process.

The undersigned groups welcome the opportunity to discuss our recommendations at any time.

Sincerely,

Coalition to Restore Coastal Louisiana
Steven Peyronnin, Executive Director
Natalie Snider, Science Director

Lake Pontchartrain Basin Foundation
John Lopez, Ph.D.
Director of Coastal Sustainability

NGONO1-1: The TSP meets all the objectives of the project and addresses areas in most critical need of restoration within the study area (NE-2). It has been decided by the USACE that authorization for additional funding will not be south at this time. However, the CIAP program may provide additional funding sources for restoration of the remaining portions of the NER plan above the recommended TSP.

Letter #9 (cont'd): Non-Government Organization (NGO)

Environmental Defense
Jim Tripp
General Counsel

Angelina Freeman, Ph.D.
Coastal Scientist

National Audubon Society
G. Paul Kemp, Ph.D.
Vice President, Gulf Coast Initiative

National Wildlife Federation
Karla Raettig
National Campaign Director

cc: Garret Graves, Coastal Protection and Restoration Authority
Steve Mathies, Louisiana Office of Coastal Protection and Restoration
Timothy Axtman, U.S. Army Corps of Engineers

Letter #9 (cont'd): Non-Government Organization (NGO)

Medium Diversion at White Ditch
LCA Draft Feasibility Report

A key component to restoration of Louisiana's coastal landscape is to reconnect the Mississippi River to the wetlands by mimicking natural processes that use the power of the Mississippi River to build land and maintain ecological integrity including habitats, communities, and storm buffering capacity. We strongly support the Medium Diversion at White Ditch and its objectives to provide freshwater, nutrients and sediments designed to restore degraded habitat and sustain a larger coastal ecosystem to support and protect the environment, economy, and culture of southern Louisiana.

Much has been learned recently about the design and operation of diversions in the Lower Mississippi River for coastal restoration, including the advantages of using pulsing as an operational strategy to maximize sediment capture (Allison and Meselhe, 2010). With rising sea levels and predictions for increased storm frequency/intensity, it is imperative that restoration projects are designed to maximize potential for offsetting projected land loss. Therefore, we commend and support the Tentatively Selected Plan (TSP) incorporating pulsing at 35,000 cfs (cubic feet per second) at high river flows to maximize sediment capture in the planning and operation of the diversion. The minimal amount of shoaling in the river expected from operation of the diversion in a pulsed fashion (1,000 cfs diversion that is pulsed at 35,000 cfs at the beginning of spring flood when suspended sediment concentrations are significantly elevated) is an additional advantage to this operational regime. Designing flexibility into this diversion project by providing pulsing capacity allows adaptation to unforeseen circumstances, as demonstrated by the Deepwater Horizon oil spill where river diversions were used to keep oil at bay. We applaud the Corps for evaluating a pulsed diversion in the analysis, and agree that the pulsed operation of the TSP maintains the medium diversion category authorization.

The sediment concentrations in the Mississippi River can vary significantly according to location, and a thorough analysis of site specific data and modeling would improve prediction of sediment efficiency and land building potential relative to diversion locations. Extensive sediment data collection and modeling is being undertaken in the White Ditch reach of the river in support of the Myrtle Grove Land Building Diversion. Using this type of data and modeling results in the benefits and drawbacks of location selection would provide a more robust analysis. We suggest incorporation of this additional data in Planning, Engineering, and Design.

The conveyance channel for the TSP accounts for almost half the total cost for the project. We agree that amending language from House/Senate subcommittees that

Letter #9 (cont'd): Non-Government Organization (NGO)

adjusts the project as authorized in WRDA 2007 for the increase in construction cost is warranted. However, we recommend reevaluating the conveyance channel and whether natural channel formation can be effectively utilized allowing the engineering to be scaled back (thereby reducing cost) to be investigated in Planning, Engineering, and Design. Natural channel formation could be incorporated into the Monitoring and Adaptive Management Plan and funding for channel modifications could be acquired on an as needed basis as a part of Operations and Maintenance.

References

Allison, M.A. and Meselhe, E.A., 2010. The use of large water and sediment diversions in the lower Mississippi River (Louisiana) for coastal restoration. Journal of Hydrology 387, 346-360.

Letter #9 (cont'd): Non-Government Organization (NGO)

Convey Atchafalaya to Northern Terrebonne Marsh/
Multipurpose Operation of the Houma Navigation Canal (HNC) Lock
LCA Draft Feasibility Report

In contrast to the robustness of the Medium Diversion at White Ditch project, the narrowing of ambition in the design of the Convey Atchafalaya to Northern Terrebonne Marsh/Multipurpose Operation of the Houma Navigation Canal (HNC) Lock is striking. As stated in the Draft Feasibility Report:

> *The purpose of the project is to reverse the current trend of marsh degradation in the project area resulting from subsidence, erosion, saltwater intrusion, and lack of sediment and nutrient deposition. The project proposes to accomplish this by utilizing fresh water, sediments, and nutrients from the Atchafalaya River and the Gulf Intracoastal Waterway (GIWW).*

The report goes further to define the objectives of the project to include:

- Prevent, reduce, and/or reverse future wetland loss
- Achieve and maintain characteristics of sustainable marsh hydrology
- Reduce salinity levels in project area
- Increase sediment and nutrient load to surrounding wetlands
- Increase residence time of fresh water
- Sustain productive fish and wildlife habitat

We do not feel that the alternatives developed for this project meet the objectives of the project. Alternative 2 was selected as the Tentatively Selected Plan. However, the TSP will reduce land loss rates by a mere 10 percent over the 50-year project period and this benefit will be lost with intermediate or high relative sea level rise. The Draft Feasibility Report states that modeling of Alternative 3 under intermediate RSLR would reduce the effectiveness of the project by 87 percent and effectiveness of the other alternatives, including the TSP, would be similar. None of the alternatives would prevent marsh collapse at the high RSLR rate.

Although none of the alternatives meet the full objectives of the project, there are benefits to be realized from the project. Based on the description of the eight alternatives available, we feel that Alternative 3 has additional benefits over Alternative 2 and should be selected as the Tentatively Selected Plan (TSP). Alternative 3 includes all the measures in Alternative 2 plus two additional measures in the West – Bayou Penchant Area. To increase flows from the Atchafalaya River, water will be moved from Bayou Shaffer to the Avoca Island Cutoff/Bayou Chene. This will be accomplished by creating an opening through the Avoca Island levee and installing a large gated diversion structure

Letter #9 (cont'd): Non-Government Organization (NGO)

(WS4) in the opening. The remaining measure (WO2) would place stone along the shore of Bayou Chene and Avoca Island Cutoff to protect from increased flows. Alternative 3 would prevent 10,308 acres of emergent marsh soils from being converted to open water over the 50-year period of analysis and would generate 3,325 AAHUs.

Alternative 2, the TSP, does not make any change to the Avoca Island Levee, one of the root causes for problems in this area that this project is designed to address. The northern and central Terrebonne Basin is in dire need to additional freshwater and sediment inputs. While even Alternatives 3 would provide only modest amounts of water and sediment into this deteriorating basin, they would represent a net addition of water and sediment above current levels. We would therefore urge further consideration of a gate diversion structure in a new Avoca Island levee opening, a structure that would return the hydrology of this part of the coast more to the distribution of flows that existing prior to construction of the levee.

Letter #9 (cont'd): Non-Government Organization (NGO)

Small Diversion at Convent/Blind River
LCA Draft Feasibility Report

A key component to restoration of Louisiana's coastal landscape is to reconnect the Mississippi River to the wetlands by mimicking natural processing that use the power of the Mississippi River to build land and maintain ecological integrity including habitats, communities, and storm buffering capacity. We strongly support the Small Diversion at Convent/Blind River and its objectives to provide freshwater, nutrients and sediments designed to restore and sustain degraded forest ecosystem to support and protect the environment, economy, and culture of southern Louisiana.

We support the selection of Alternative 2, a 3,000-cfs gated culvert diversion structure at Romeville, Louisiana, as the TSP for the Small Diversion at Convent/Blind River. Alternative 2 is also the NER Plan. Although we typically support larger flow rates, we understand the constraints of the receiving area and the need to provide both wet and dry periods for natural regeneration of the forest. We also support the robust monitoring plan to be utilized to adaptively manage the structure operations including optimal pulsing periods and various flow rate impacts.

We are concerned about the requirements for Operations, Maintenance, Repair, Rehabilitation and Replacement (OMRR&R). The Feasibility Report estimates that the total annual cost will be $2,754,000. Over the 50 year lifetime of the project, that equates to $137,700,000 in OMRR&R. Most of this cost is associated with dredging in the Transmission Canal ($2,200,000 per year). There was no discussion of alternatives to dredging, such as modification to the canal to limit sedimentation. Although the material will be used beneficially and "discharged into the swamp in a controlled manner to supplement land-building", there is no detailed discussion on how this will be accomplished.

In addition, the deposition of 150,000 cubic yards of material annually appears to be an estimate based on multiple assumptions. With the uncertainty involved, the Monitoring and Adaptive Management Plan should monitor impacts to the Transmission Canal and recommend dredging on an as needed basis. The adaptive management plan should also evaluate structure operation and pulsing that maximizes impacts and minimizes dredging requirements.

Lastly, Appendix L: Engineering Appendix states that material dredged during the construction of the Transmission Canal can be sold as excess spoil by the contractor or used to widen/raise the adjacent berm. There appears to be no discussion of alternatives to use the material beneficially.

Letter #9 (cont'd): Non-Government Organization (NGO)

Amite River Diversion Canal Modifications
LCA Draft Feasibility Report

The study area for the Amite River Diversion Canal Modifications Project is within one of the largest remaining tracts of coastal freshwater swamps in Louisiana. Some of the study area is degrading to marsh or open water. The continued degradation of these areas will lead to loss of ecological function, storm surge protection values, and a unique habitat. We strongly support the Amite River Diversion Canal Modifications and its objectives to provide freshwater, nutrients and sediments into these degraded forest ecosystems to support and protect the environment, economy, and culture of southern Louisiana.

Alternatives

The Amite River Diversion Canal Modification is the only project included in the Draft Feasibility Reports where the National Ecosystem Restoration (NER) Plan, Alternative 39, was not selected as the Tentatively Selected Plan (TSP). Alterative 33 was ranked as the 4th best performing plan but was selected as the TSP due to cost constraints under the current WRDA 2007 authorization. However, the acreage of benefits for Alternative 39 provides double the benefits of the TSP over the 50 year study period and impacts all of the critical, degrading hydrologic units identified within the study.

Although the TSP, Alternative 33, meets the objectives of the study, it only meets those objectives in the most critical hydrologic unit, NE-2. The other three degraded hydrologic units (NE-1, SE-1 and SE-2) are also in critical need for hydrologic restoration and the TSP does not meet the project objectives in these units of the study area. We must keep in mind that these areas will continue to degrade, increasing the difficulty and cost of restoring these areas in the future. The maximum cost allowance in WRDA 2007 is $10,760,000 and the NER Plan total cost is estimated at $13,600,000. The difference of $2,840,000 is a small cost difference in order to double the acres benefited from this project and restore hydrologic function to all four critical hydrologic units.

The Chiefs Report should acknowledge that the environmentally-preferred and cost-effective alternative was not selected due to authorization constraints. Additional authorization should be sought to authorize the NER Plan for completion under the same Feasibility Study and Environmental Impact Statement.

We fully support the State of Louisiana's position on this project:

NGONO1-2: The rationale for selection of the TSP over the NER and other, higher-ranked alternatives is discussed in Volume II, Sections 3.7 and 3.7.11.1 of the report.

NGONO1-3: WRDA 2007, which provides authorization for this project, specifies a cost limit of $10.7 million, which must be adhered to.

NGONO1-4: It has been decided by the USACE that authorization for additional funding will not be sought at this time.

Letter #9 (cont'd): Non-Government Organization (NGO)

CPRA supports the NER plan (Alternative 39) since this plan includes all of the most critical areas within the Maurepas Swamp basin, establishes the greatest amount of hydrologic connectivity of all of the alternatives, is cost-effective while providing the most benefits, and is a best-buy plan. However, due to authorized cost limitations in WRDA 2007, CPRA supports Alternative 33 as the TSP. CPRA believes the project warrants additional Congressional authorization to increase funding and allow the implementation of the NER plan (Alternative 39) to fully address the Maurepas Swamp's ecosystem needs identified in this report.

Monitoring and Adaptive Management Plan

We certainly understand the need to incorporate adaptive management into the LCA projects. However, the Feasibility Report states that there are minimal active adaptive management opportunities for the Amite River Diversion Canal project and that the lessons learned would not likely apply to other coastal Louisiana restoration projects. The Monitoring and Adaptive Management Plan states that the Amite River Diversion Canal project will not be adaptively managed.

The Feasibility Study analyzed the need for restoration throughout the study area and identified four hydrologic units in a degraded state. Hydrologic restoration will only occur in the NE-2, however it is still imperative to understand the impacts of this decision on the other degrading hydrologic units. Although the Monitoring and Adaptive Management Plan, includes the monitoring objectives for the entire study area, which includes the four most critical hydrologic units, the monitoring procedures are described for within the project area, which only includes one of the critical units, NE-2. Thus, it is unclear if the Monitoring and Adaptive Management Plan intends to monitor ecological variables in the entire study area or just the project area.

It is our recommendation that the Monitoring and Adaptive Management Plan collect monitoring data on the entire study area, or at least the four degraded hydrologic units, to not only understand the outcomes of the project construction but to also understand the outcomes of project decision-making.

We are also concerned with the cost estimates associated with Alternative 33, specifically the costs to monitor the project outcomes ($2,971,200). This cost is nearly 40 percent of the total project cost and we assume will only cover monitoring within the project construction area. For the NER Plan, Alternative 39, monitoring is only 26.9 percent of the total project cost.

Although monitoring and research is one of the most important aspects of project performance and future planning, and those costs should be incorporated into the total project costs, we should be very aware of the need to balance monitoring and the overall project costs. In addition, these monitoring costs would be more reasonable if monitoring was being conducted on the entire study area instead of just one of the hydrologic units.

NGONO1-5: The monitoring and adaptive management plan proposes a total of six monitoring sites. Three sites would be in the project area that would be directly influenced by project implementation and three sites would be in the larger surrounding study area for reference. Monitoring costs are already 40% of the total project costs, if monitoring was expanded as recommended to include entire study area, monitoring costs would greatly increase and may exceed entire project construction cost making the project not feasible. The development monitoring plan has selected the areas needed to make decisions regarding project success. This point will be clarified within the Monitoring Plan.

Letter #10: Louisiana Department of Environmental Quality (LDEQ)

July 8, 2010

Joan M. Exnicios, Chief

USACE Environ.Planning Branch

P.O. Box 60267

New Orleans, LA 70160-0267

william.p.klein.jr@usace.army.mil <mailto:william.p.klein.jr@usace.army.mil>

RE:

100603/1015

USACE DRAFT EIS - LCA-Vol. II

(on disk)

Amite River Div. Canal Mod. EIS

Ascension and Livingston Parishes

Dear Ms. Exnicios:

The Department of Environmental Quality (LDEQ), Offices of Environmental Services and Environmental Compliance have received your request for comments on the above referenced project. Please take any necessary steps to obtain and/or update all necessary approvals and environmental permits regarding this proposed project.

Mr. Yasoob Zia and the Air Quality Assessment Division have no objections regarding this project in the nonattainment parishes of Ascension and Livingston based upon your revised VOC & NOx emissions tables in your letter submitted to us. However, the following comments have been included below.
Should you encounter a problem during the implementation of this project, please notify LDEQ's Single-Point-of-contact (SPOC) at (225) 219-3640.

Letter #10 (cont'd): Louisiana Department of Environmental Quality (LDEQ)

The Office of Environmental Services/Permits Division recommends that you investigate the following requirements that may influence your proposed project:

* If your project results in a discharge to waters of the state, submittal of a Louisiana Pollutant Discharge Elimination System (LPDES) application may be necessary.
* If the project results in a discharge of wastewater to an existing wastewater treatment system, that wastewater treatment system may need to modify its LPDES permit before accepting the additional wastewater.
* LDEQ has stormwater general permits for construction areas equal to or greater than one acre. It is recommended that you contact the LDEQ Water Permit Division at (225) 219-3181 to determine if your proposed improvements require one of these permits.
* All precautions should be observed to control nonpoint source pollution from construction activities.
* If any of the proposed work is located in wetlands or other areas subject to the jurisdiction of the U.S. Army Corps of Engineers, you should contact the Corps directly to inquire about the possible necessity for permits. If a Corps permit is required, part of the application process may involve a water quality certification from LDEQ.
* All precautions should be observed to protect the groundwater of the region.
* Please be advised that water softeners generate wastewaters that may require special limitations depending on local water quality considerations. Therefore if your water system improvements include water softeners, you are advised to contact the LDEQ Water Permits to determine if special water quality-based limitations will be necessary.
* Any renovation or remodeling must comply with LAC 33:III.Chapter 28.Lead-Based Paint Activities, LAC 33:III.Chapter 27.Asbestos-Containing Materials in Schools and State Buildings (includes all training and accreditation), and LAC 33:III.5151.Emission Standard for Asbestos for any renovations or demolitions.
* If any solid or hazardous wastes, or soils and/or groundwater contaminated with hazardous constituents are encountered during the project, notification to LDEQ's Single-Point-of-Contact (SPOC) at (225) 219-3640 is required. Additionally, precautions should be taken to protect workers from these hazardous constituents.

Currently, Ascension and Livingston Parishes are classified as nonattainment with the National Ambient Air Quality Standards.

Please forward all future requests to Ms. Diane Hewitt, LDEQ/Performance Management/ P.O. Box 4301, Baton Rouge, LA 70821-4301, and your request will be processed as quickly as possible.

LDEQNO2-1: Section 7 discusses all coordination and compliance applicable to this project.

Letter #10 (cont'd): Louisiana Department of Environmental Quality (LDEQ)

If you have any questions, please feel free to contact me at (225) 219-4079 or by email at diane.hewitt@la.gov <mailto:diane.hewitt@la.gov> . Permitting questions should be directed to the Office of Environmental Services at (225) 219-3181.

Sincerely,

Diane Hewitt

Performance Management

LDEQ/Community and Industry Relations

Business and Community Outreach Division

Office of the Secretary

P.O. Box 4301 (602 N. 5th Street)

Baton Rouge, LA 70821-4301

Phone: 225-219-4079

Fx: 225-325-8208

E-mail: diane.hewitt@la.gov