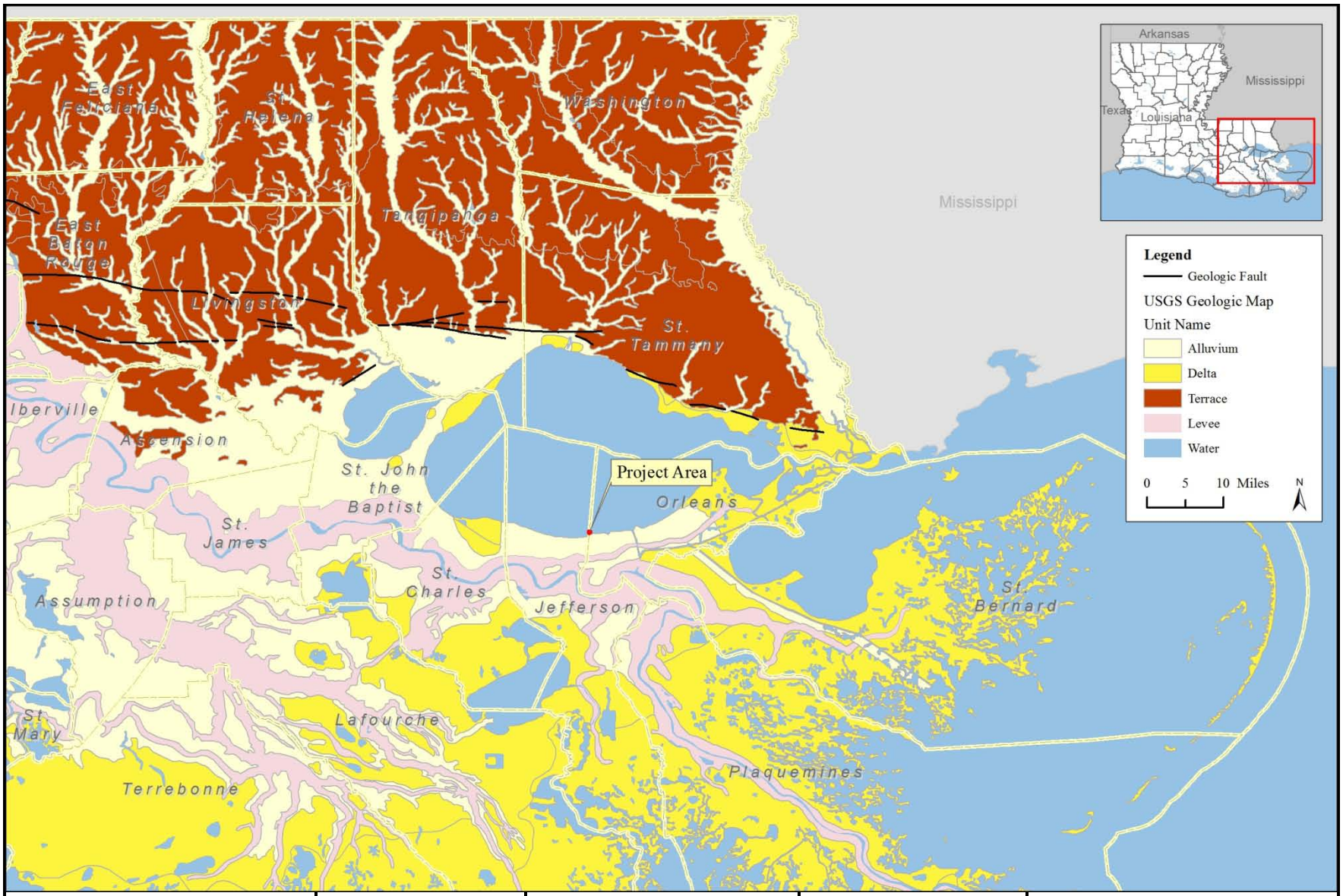
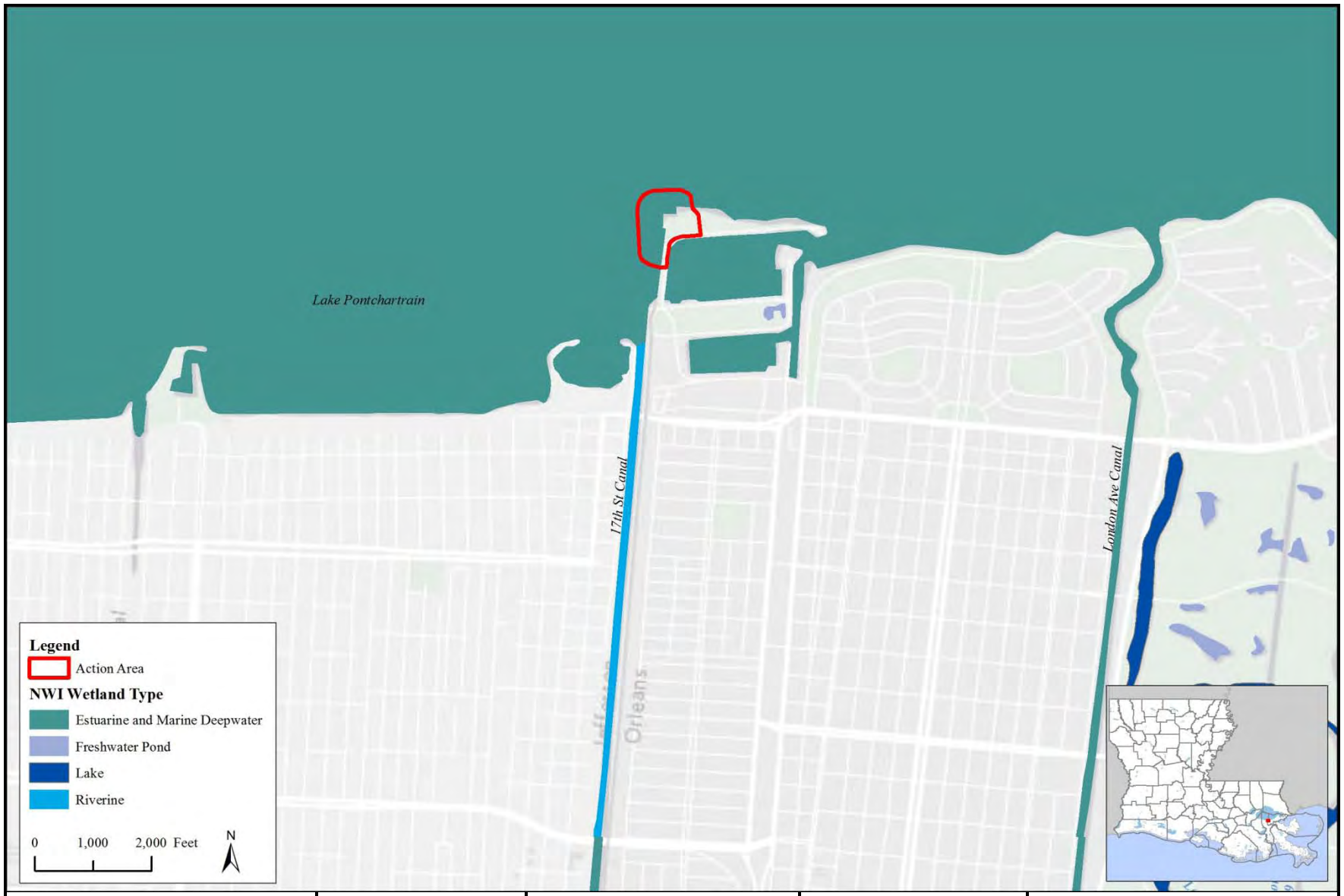
Appendix A

Supplemental Maps & Figures

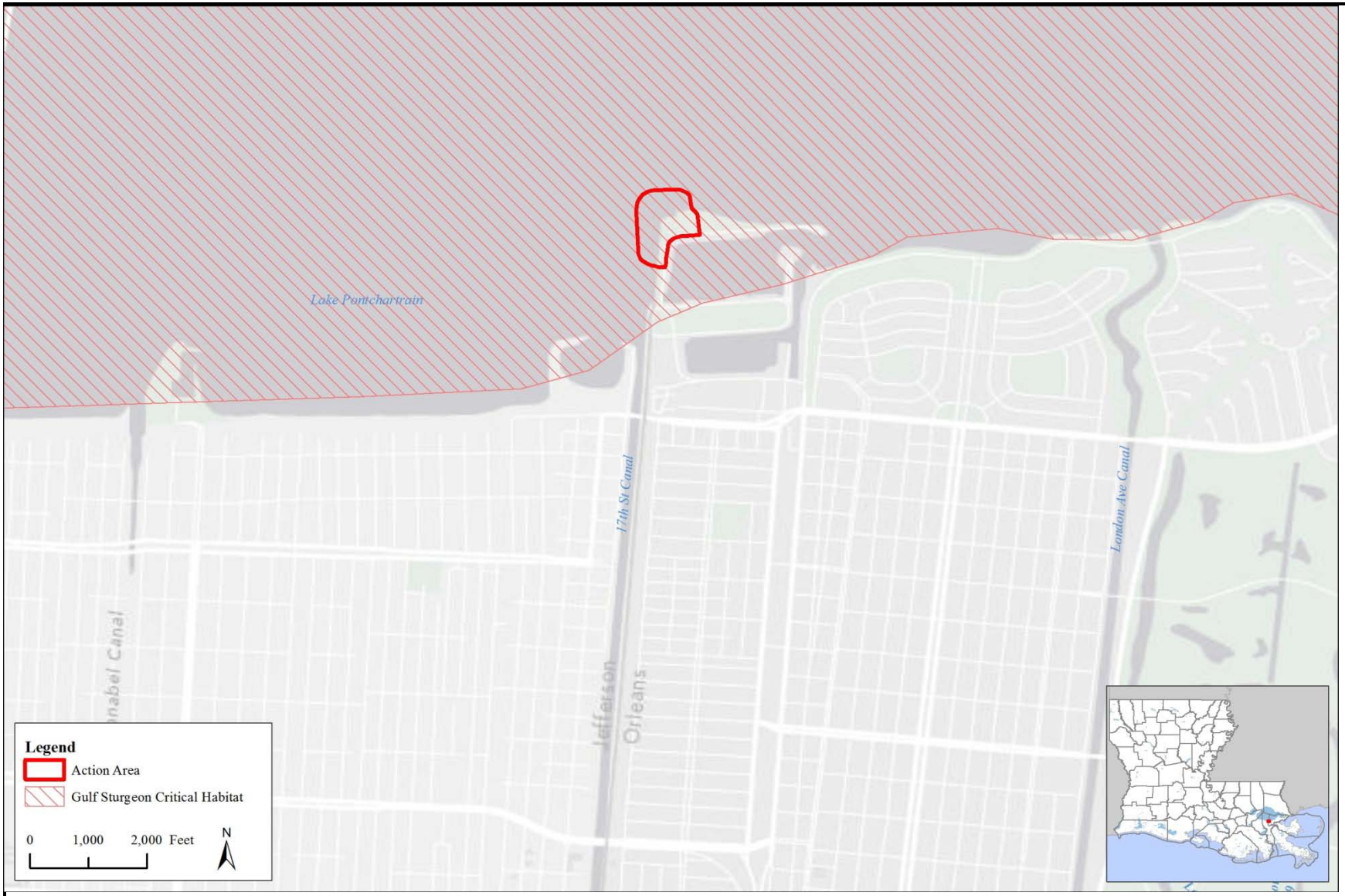
FEMA	**FEMA-1603-DR-LA** **AIDB #1776**	**City of New Orleans** Municipal Yacht Harbor Pier Replacement Project	**Draft Environmental Assessment**	**Appendix A - Figure 1** Lake Pontchartrain Basin



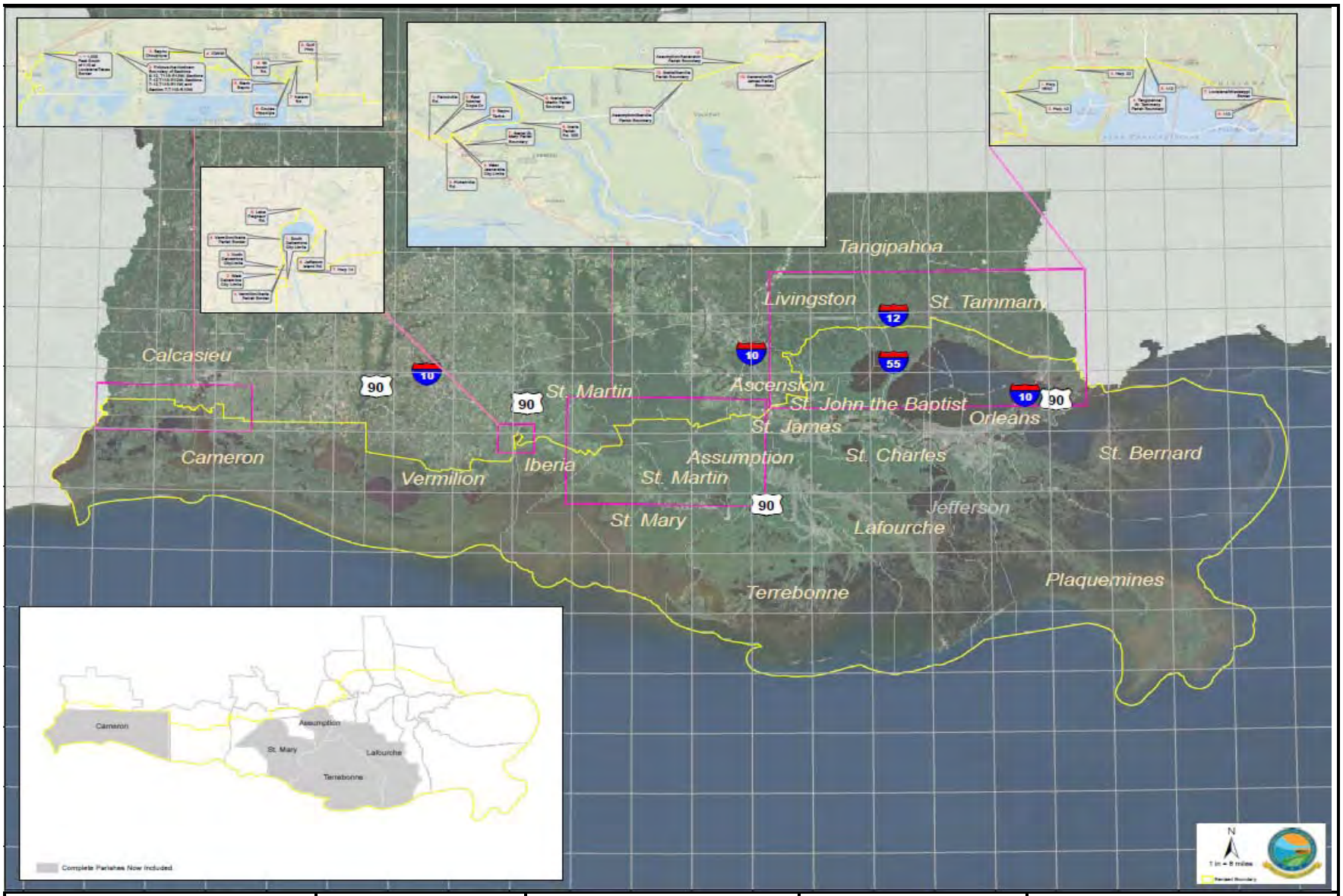
FEMA	**FEMA-1603-DR-LA** **AIDB #1776**	**City of New Orleans** Municipal Yacht Harbor Pier Replacement Project	**Draft Environmental Assessment**	**Appendix A - Figure 2** Pontchartrain Basin Geologic Map Source: USGS 1998, 2012c



FEMA	**FEMA-1603-DR-LA** **AIDB #1776**	**City of New Orleans** Municipal Yacht Harbor Pier Replacement Project	**Draft Environmental Assessment**	**Appendix A - Figure 3** National Wetlands Inventory Map



FEMA	**FEMA-1603-DR-LA** **AIDB #1776**	**City of New Orleans** Municipal Yacht Harbor Pier Replacement Project	**Draft Environmental Assessment**	**Appendix A - Figure 4** Gulf sturgeon Critical Habitat Map



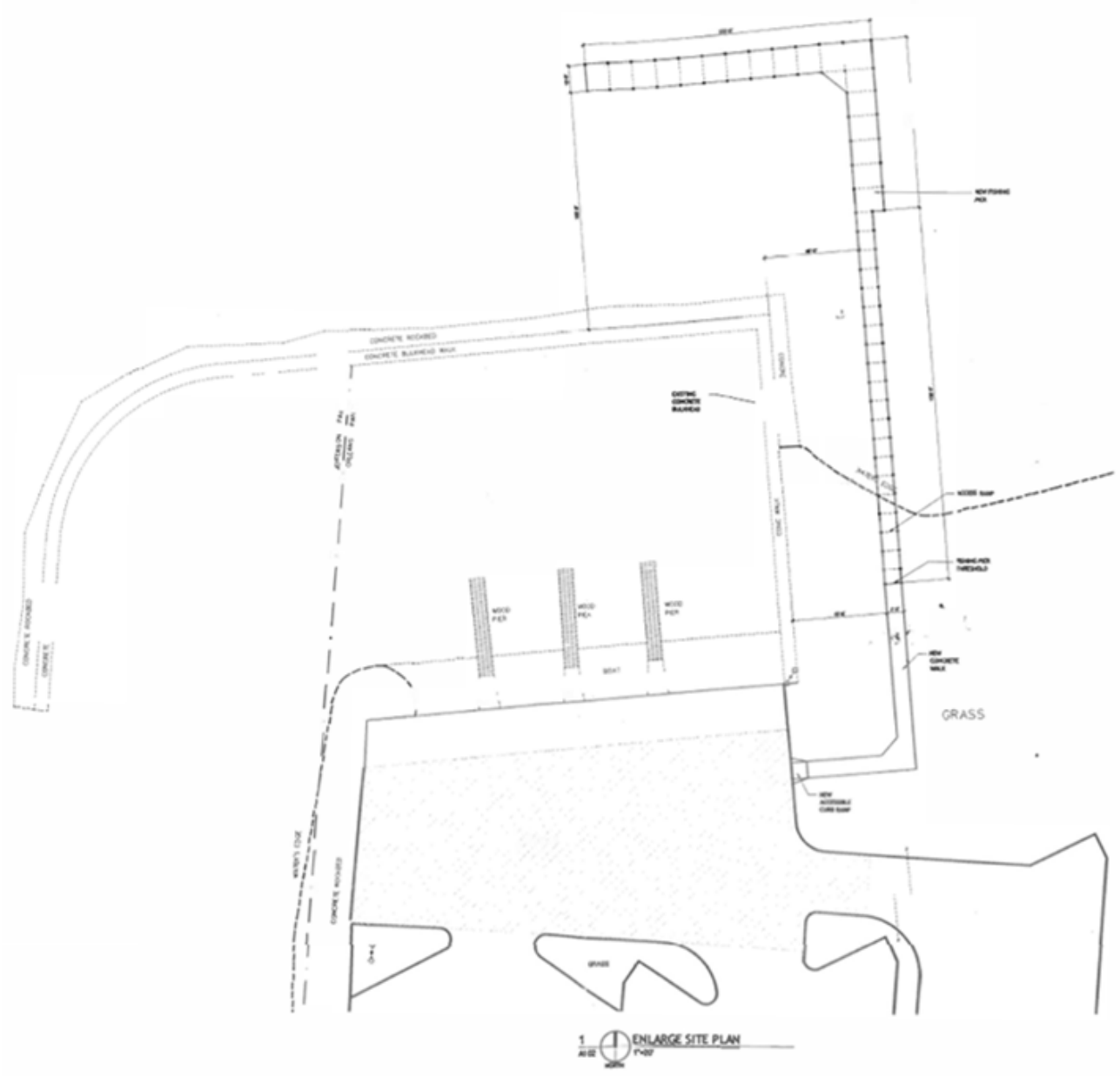
FEMA	**FEMA-1603-DR-LA** **AIDB #1776**	**City of New Orleans** Municipal Yacht Harbor Pier Replacement Project	**Draft Environmental Assessment**	**Appendix A - Figure 5** Louisiana Coastal Zone Map Data: LDNR Office of Coastal Management

FEMA	**FEMA-1603-DR-LA** **AIDB #1776**	**City of New Orleans** Municipal Yacht Harbor Pier Replacement Project	**Draft Environmental Assessment**	**Appendix A - Figure 6** Gulf Sturgeon Critical Habitat Map - Units 1 - 14 **Data: Gulf Sturgeon Critical Habitat (NMFS SERO)**

FEMA	**FEMA-1603-DR-LA** **AIDB #1776**	**City of New Orleans** Municipal Yacht Harbor Pier Replacement Project	**Draft Environmental Assessment**	**Appendix A – Figure 7** DFIRM Floodplain

Municipal Yacht Harbor Relocated Fishing Pier - Draft Design Drawings (Alternative 3)

(Drawings not to scale)



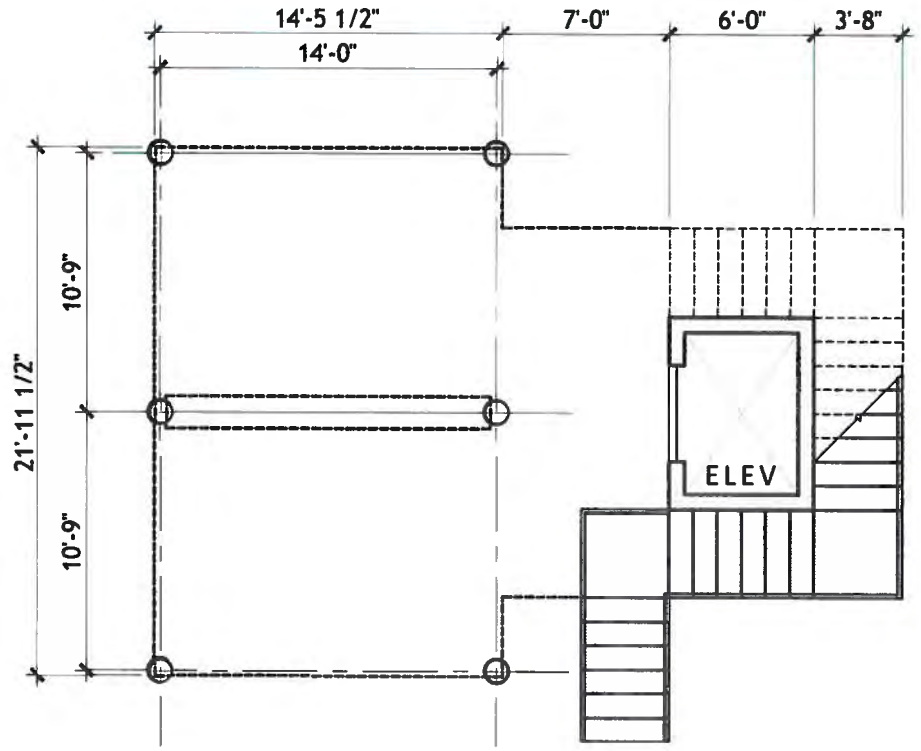
SIZELER THOMPSON BROWN ARCHITECTS

PROJECT DESIGN GROUP, LLC
300 LAFAYETTE STREET, SUITE 200
NEW ORLEANS, LOUISIANA 70130
(504) 523-6472 FAX (504) 529-1181

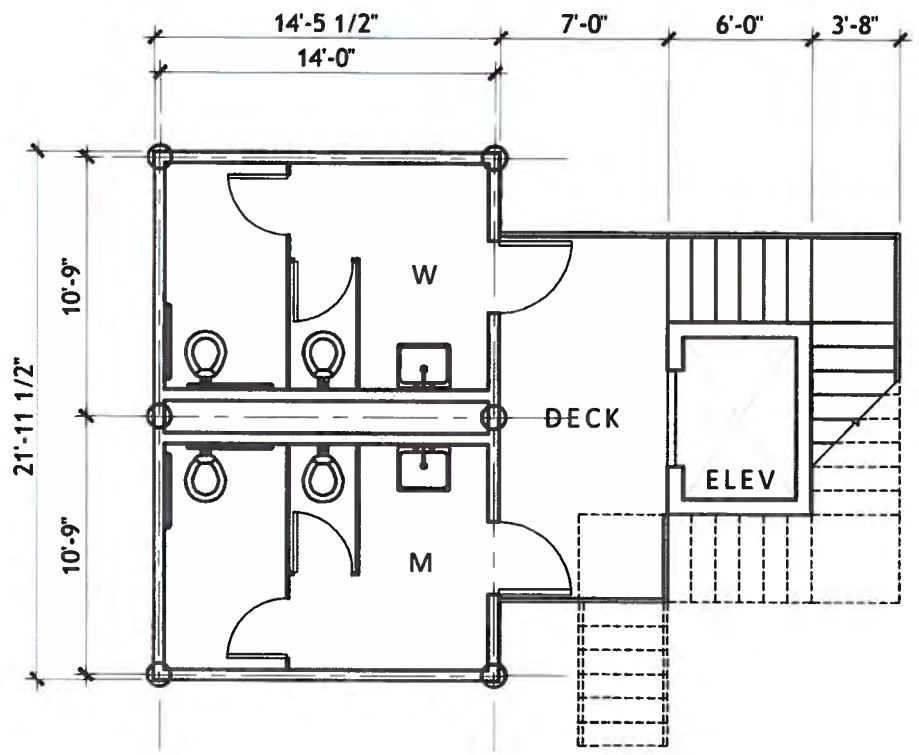
No.	revision	date
1		
2		
3		
4		
5		

NEW ORLEANS MUNICIPAL YACHT HARBOR
FISHING PIER AND BOAT LAUNCH
BRECHTEL DRIVE
NEW ORLEANS, LA

ENLARGED SITE PLAN



LEVEL 1 PLAN

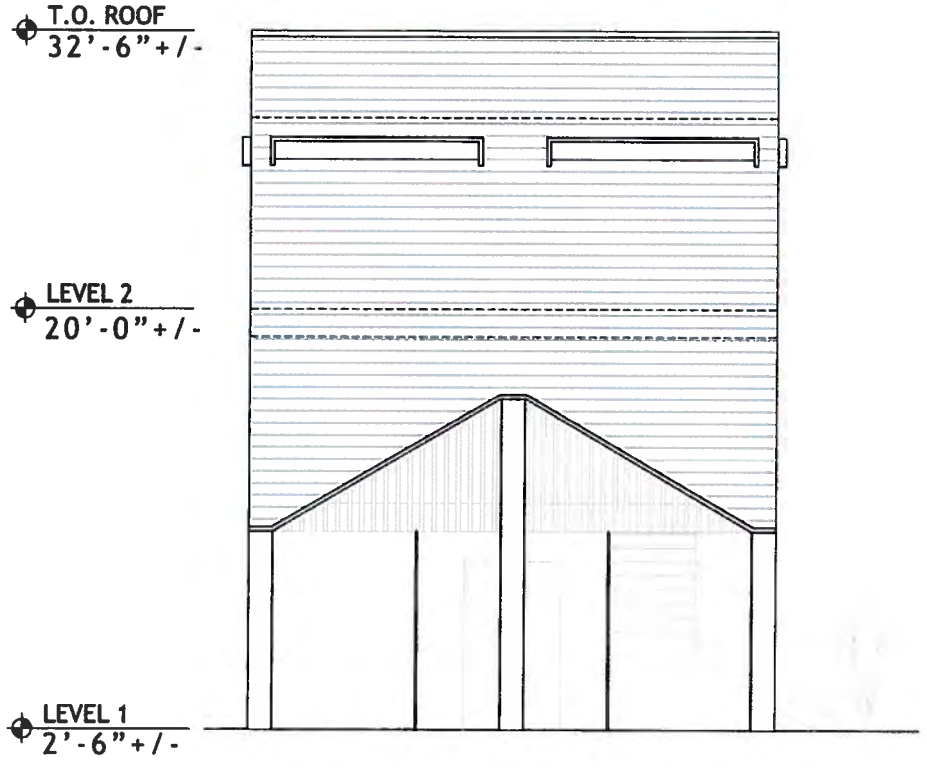


LEVEL 2 PLAN

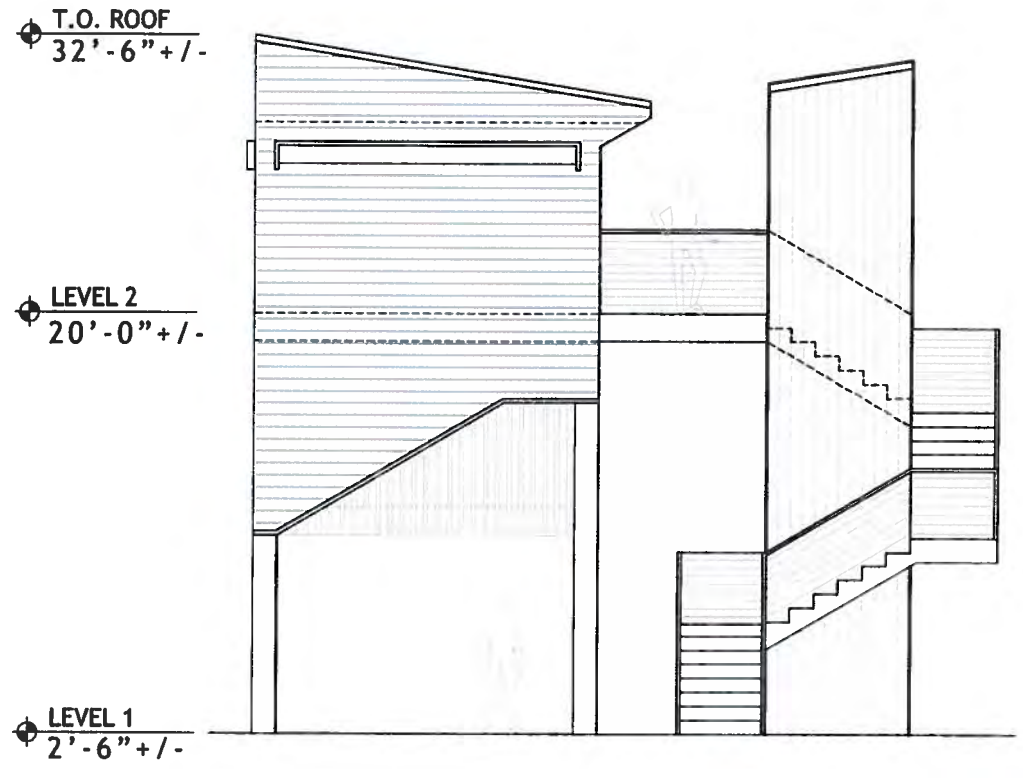
AREA LEGEND:

ENCLOSED SPACE & UPPER DECK:
425 SQUARE FEET

CIRCULATION (STAIR/ELEVATOR):
180 SQUARE FEET



WEST ELEVATION



SOUTH ELEVATION

PRELIMINARY
NOT FOR CONSTRUCTION

NEW ORLEANS MUNICIPAL YACHT HARBOR-FISHING PIER RESTROOM FACILITY

CONCEPT FOR RAISED STRUCTURE

PO#51129.09

DATE:10.16.12

Sizeler Thomspon Brown Architects
Project Design Group, LLC
300 Lafayette Street, Suite 200
New Orleans, LA 70130
Phone: 504-523-6472 Fax: 504-529-1189

Appendix B

Supporting Documentation

Appendix B Table 1 - List of Databases and Information Sources Used

Agency	Dataset Name	Data Last Updated	Date Accessed	Source
Federal				
EPA	ACRES		5/18/2012	NEPAssist - Online
EPA	AFS		5/18/2012	NEPAssist - Online
EPA	Air Emission Facilities	5/18/2012	5/18/2012	NEPAssist - Online
EPA	CERCLIS		5/18/2012	NEPAssist - Online
EPA	Clean Water Act - Section 303(d)	March 06, 2012	5/23/2012	Clean Water Act Section 303 - Online
EPA	Health Statistics		5/18/2012	NEPAssist – EJViewer - Online
EPA	Impaired Waterbodies		5/18/2012	NEPAssist - Online
EPA	PCS/ICIS		5/18/2012	NEPAssist - Online
EPA	RCRA		5/17/2012	NEPAssist - Online
EPA	Social Statistics		5/18/2012	NEPAssist – EJViewer - Online
EPA	TRI		5/18/2012	NEPAssist - Online
Gulf of Mexico Fishery Management Council "Gulf Council"	Species Listed In The Fishery Management Plans of the Gulf Of Mexico	05/14/2012	5/24/2012	Gulf of Mexico Fishery Management Council: Fishery Management Plans and Amendments - Online
NOAA - NMFS	Essential Fish Habitat Mapper v2.0	10/24/2011	5/24/2012	NOAA EFH - Online
NOAA - NMFS	Magnuson-Stevens Fishery Conservation and Management Act	2007	5/24/2012	NOAA Fisheries - Online
NOAA - NMFS	Sea Turtle Stranding and Salvage Network (STSSN)	2012	6/05/2012	NOAA Fisheries - Online
NOAA - Office of Protected Resources	Loggerhead Turtle *(Caretta caretta)*	September 22, 2011	5/8/2012	NOAA OPR - Online
US Census Bureau	2010 Census Data for: Louisiana, Orleans & Jefferson Parishes, Select Census Tracts within 1-mile radius of proposed project	2010	5/22/2012	2010 Census Interactive Population Search - Online
USDA - NRCS	Custom Soil Resource Report for Jefferson and Orleans Parishes	4/21/2011	5/17/2012	Web Soil Survey - Online
USFWS	Federally Designated Critical Habitat in Jefferson and Orleans Parishes	May 2012	5/8/2012	Critical Habitat Portal - Online
USFWS	Federally Listed Threatened and Endangered Species of Jefferson and Orleans Parishes	May 2012	5/8/2012	IPac Web Portal - Online
USFWS	National Wetlands	5/05/2012	5/18/2012	Wetlands Mapper -

	Inventory (NWI)			Online
USFWS	Saline Bayou	08/18/2011 11:32:36	5/21/2012	National Wild and Scenic Rivers by State - Online
USGS	Environmental Atlas of Lake Pontchartrain	Tue 14 May 2002, 11:29:14	5/22/2012	Coastal & Marine Geology Program - Online
USGS	Lake Pontchartrain (HUC 08090202)	Thursday, 29-Jul-2010 16:36 EDT	5/22/2012	Water Resources of the United States - Online
USGS	Qal - Alluvium		5/22/2012	Mineral Resources On-Line Spatial Data - Online
State				
Gulfsource	Gulf Ecology		06/04/2012	Gulfsource.org - Online
LDNR	SONRIS – Oil/Gas		5/21/2012	SONRIS - Online
LDWF	State Listed Species by Parish – Jefferson Parish		5/21/2012	Species by Parish List - Online
LDWF	State Listed Species by Parish – Orleans Parish		5/21/2012	Species by Parish List – Online
LDEQ	CWA Section 303(d) – Impaired Waterways	2010	5/22/2012	2010 Louisiana Water Quality Inventory: Integrated Report - Online
LDEQ/LDHH	Swimming Advisory Due to Fecal Coliform		5/22/2012	Fish Consumption and Swimming Advisories - Online

CITY OF NEW ORLEANS
ENVIRONMENTAL ASSESSMENT (EA)
MUNICIPAL YACHT HARBOR FISHING PIER
REQUEST FOR AN IMPROVED/CHANGE OF LOCATION/REPLACEMENT

Date: 10/22/2012
Prepared by: June R. Griffin, CFM, FEMA, Environmental
Adam Borden, CFM, FEMA Environmental
Applicant: City of New Orleans
Project Title: Municipal Yacht Harbor Fishing Pier
Request for: Improved Project/Change of Location/Replacement - A/I Database #: 1776; FEMA-DR-LA: 1603
FIPS #: 071-55000-00; PW #: 11698
Proposed Latitude: 30.029230 **Longitude:** -90.119420

Floodplain Review:

The City of New Orleans/Orleans Parish enrolled in the National Flood Insurance Program (NFIP) on August 03, 1970. The site is located within a Zone "VE", EL 17 North American Vertical Datum (NAVD) per Preliminary Digital Flood Insurance Rate Map 22071C0115 F, dated November 13, 2008. FEMA's regulations implementing EO 11988, Floodplain Management, prohibit the Agency from funding new construction in V-Zones that is not functionally dependent on water or otherwise facilitates open space use. This project Scope of Work involves the relocation of a pier that is functionally dependent on water and the replacement of a restroom structure that is not functionally dependent and does not facilitate open space use. New construction of a functionally dependent pier is consistent with Floodplain Management regulations of 44 CFR 9. The restroom replacement has also been determined to be eligible by attached FEMA Memorandum of June 2, 2009 from James A. Walke, Acting Assistant Administrator, FEMA Disaster Assistance Directorate to FEMA Regional Administrators and Acting Regional Administrators for Regions I - X, Transitional Recovery Office Directors and Federal Coordinating Officers and also by attached memorandum of July 15, 2009 from Elizabeth A. Zimmerman, Assistant Administrator, FEMA Disaster Assistance Directorate to FEMA Regional Administrators and Acting Regional Administrators for Regions I - X, Transitional Recovery Office Directors and Federal Coordinating Officers. By Memorandum of February 17, 2012 from Frank Pagano, Mitigation Division Director of FEMA Region 6, to John Connolly, Senior Public Assistance Advisor, Louisiana Recovery Office, this project is located outside the protection of the HSDRRS; therefore, the 2008 Preliminary Digital Flood Insurance Rate Map (DFIRM) must be used for establishing the BFE. The applicant is required to coordinate with the local floodplain administrator regarding floodplain permit(s) prior to the start of any activities. All coordination pertaining to these permit(s) should be documented to the local floodplain administrator and copies provided to LA GOHSEP and FEMA as part of the permanent project files. Per 44 CFR 9.11 (d) (9), contents, materials and equipment, where possible, disaster-proofing of the building and/or elimination of such future losses should occur by relocation of those building contents, materials and equipment outside or above the base floodplain. A Cumulative Public Notice was published on October 21, 2007-November 02, 2007.

Scope of Work (SOW):

The project is a request for a Change of Location and Replacement of Restroom Facilities. The City of New Orleans is requesting approval to relocate the Municipal Yacht Harbor Fishing Pier facility to a new site within the Municipal Yacht Harbor. It is the intention of the applicant to replace the pier with the same function and capacity that existed prior to the storm, with any increase in size of the overall square footage of the project being a result of codes and standards. It is also the intention of the city of New Orleans to replace the storm damaged restroom building with newly constructed elements of the same function and capacity; however, the City intends to relocate only the fishing pier to a new site within the Municipal Yacht Harbor Complex.

EXECUTIVE ORDER 11988 – FLOODPLAIN MANAGEMENT
EIGHT-STEP DECISION MAKING PROCESS [EA]

Executive Order 11988 (Floodplain Management) requires federal Agencies "to avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of the floodplain and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative." FEMA's implementing regulations are at 44 CFR Part 9, which includes an Eight Step decision making process for compliance with this part.

This Eight Step Process is applied to the proposed Municipal Yacht Harbor Fishing Pier (MYHFP) facility. The proposed project area is within the 100-year (1% annual chance) floodplain. The steps in this decision making process is as follows.

Step 1: Determine if the Proposed Action is Located in the Base Floodplain

The proposed action involves the relocation/ reconstruction of MYHFP facilities which are located within the 100 year floodplain- Coastal High Hazard. The current and proposed sites of the MYHFP facility are located within a "VE" Zone, EL 17, per Preliminary Digital Flood Insurance Rate Map (DFIRM) Panel #: 22071C0115 F, dated, 11.13.08. The floodplain in relation to the community and the proposed location for the MYHFP facility are depicted on Figures Figure 7 (Appendix A) of the Environmental Assessment.

Step 2: Early Public Notice (Preliminary Notice)

FEMA has an obligation to provide adequate information to enable the public to have impact on the decision outcome for all action having the potential to affect, adversely, or be affected by floodplains or wetlands that it proposes. FEMA shall provide the public with adequate information and opportunity for review and comment at the earliest possible time and throughout the decision-making process; and upon completion of this process, provide the public with an accounting of its final decision (see §44 CFR 9.12). A Cumulative Initial Public Notice was published in statewide newspapers from 10/21/08-11/02/08.

Step 3: Identify and Evaluate Alternatives to Locating in the Base Floodplain.

Alternative 1: No Action – The original structure is located within the 100-year (1% annual chance) floodplain. The No Action Alternative is not a practicable alternative, because it would leave the original structure in a damaged, unsafe, and unusable condition within the floodplain.

Alternative 2: Relocation outside the 100-yr (1% annual chance) floodplain – this alternative is not considered practicable. The MYHFP pier is functionally dependent upon its location within water. If relocated outside of the 100-year (1% annual chance) floodplain it would not be able to perform its intended purpose, therefore it must be located or carried out in close proximity to water. The city of New Orleans intends to replace the function and capacity of the storm damaged restroom building in its existing location with proper elevation standards. Although feasible, relocation of the restroom facility outside of the floodplain is not considered practicable. Its intended purpose is to serve the public utilizing the fishing pier. Elevation of the structure compliant with V-zone standards will mitigate potential storm related damage.

Alternative 3: Reconstruction of the fishing pier to pre-disaster condition at its present location is not considered the most practicable alternative. The applicant has proposed relocating the

MYHFP pier due to the direct path of water flowing from the 17th Street Canal Pumping Station which discharges large amounts of fresh water towards the current location of the fishing pier. The MYHMC has indicated that the fishing pier would be better located north of Breakwater Drive, on the outside perimeter of a concrete breakwater wall, to be out of the path of the 17th Street Canal outflow. The outflow is believed to have a negative effect on sport fishing and hence the replacement of the fishing pier facility would be better served out of the direct path of the 17th Street Canal. Replacement of the storm damaged restroom building with elevation at its existing location is a practicable alternative.

Alternative 4 (Proposed Alternative): The proposed Change of Location of the new MYHFP pier is located within the 100-year (1% annual chance) floodplain. The relocation is considered most practicable for the following reasons: (a) the applicant has indicated that the Municipal Yacht Harbor Fishing Pier would be better located north of Breakwater Drive, on the outside perimeter of a concrete breakwater wall, to be out of the path of the 17th Street Canal outflow, which discharges vast amount of water. The outflow is believed to have a negative effect on sport fishing and hence the replacement of the MYHFP facility would be better served out of the direct path of the 17th Street Canal, thereby enhancing recreational fishing experiences; (b) the MYHFP facility is functionally dependent upon its location in the Coastal High Hazard Area. If relocated outside of the 100-year (1% annual chance) floodplain it would not be able to perform its intended purpose, therefore it must be located or carried out in close proximity to water.

Replacement of the storm damaged restroom building with elevation at its existing location is the most practicable alternative. Although feasible, relocation of the restroom facility outside of the floodplain is not considered most practicable. Its intended purpose is to serve the public utilizing the fishing pier. Elevation of the structure compliant with V-zone standards will mitigate potential damage.

Step 4: Identify Impacts of Proposed Action Associated With Occupancy or Modification of the Floodplain.

Alternative 4: *(Proposed Alternative)* –The proposed project restores the function and capacity of facilities lost as a result of the disaster. The restroom facility will be located in its pre-existing footprint with elevation to the BFE. The pier will be relocated in a more practicable location but still within the vicinity of the original pier. The proposed project will be located in a Coastal High Hazard area. This area is subject to the hazard of high velocity waters from tidal surge or hurricane wave wash. There proposed location is at risk of flood damage from surging water.

Step 5: Design or Modify the Proposed Action to Minimize Threats to Life and Property and Preserve its Natural and Beneficial Floodplain Values

Harm to and within the floodplain must be minimized. New construction must be compliant with 44 CFR 9 minimization standards and current codes and standards. Per 44 CFR 9.11 (d)(9), where possible, disaster-proofing of the building and/or elimination of such future losses should occur by relocation of those building contents, materials and equipment outside or above the base floodplain. MYHFP facility is required to coordinate with the local floodplain administrator regarding floodplain permit(s) prior to the start of any activities.

Step 6: Re-evaluate the Proposed Action

The proposed action will have risk associated with its location in a 100-year (1% annual chance) floodplain, Coastal High Hazard Area. However, the proposed pier is functionally dependent on water to serve its intended purpose. The restroom facility will be mitigated through elevation. All other mitigation measures outlined in 44 CFR 9.11 must be applied to this project, as well as conditions related to floodplain permits.

Step 7: Findings and Public Explanation (Final Notification)

National Environmental Policy Act (NEPA) Environmental Assessment (EA) has been drafted to determine if the reconstruction of the MYHFP facility, as described, will have the potential for significant adverse effects on the quality of the human and natural environment. The results of the investigation are being used to make a decision whether to initiate preparation of an Environmental Impact Statement (EIS) or to prepare a Finding of No Significant Impact (FONSI). The availability of the Draft EA will be published in the local newspaper, *The Advocate,* on the following dates: November 23, 24, 26, 27, and 28, 2012. It will also be published in another local newspaper, *The Times-Picayune,* on the following dates: November 23, 25, 28, 30 and December 02, 2012. The comment period will be 15 days – beginning on November 23, 2012 and concluding December 7, 2012. Written comments on the EA or related matters can be emailed to FEMA-NOMA@dhs.gov, faxed to FEMA's Louisiana Recovery Office at (504) 762-2323; or mailed to FEMA Louisiana Recovery Office, 1 Seine Court, New Orleans, Louisiana 70114. The public notices will announce the availability of the EA for public review at the Orleans Parish Main Library at 219 Loyola Avenue, New Orleans, LA 70112, (hours are 10 a.m. - 6 p.m., Mon. - Thurs., 10 a.m. - 5 p.m., Fri. & Sat.). The EA can also be viewed and downloaded from FEMA's website at: http://www.fema.gov/environmental-planning-and-historic-preservation-program/environmental-documents-public-notices-3.

After evaluating alternatives, including impacts and mitigation opportunities FEMA has determined that the proposed project is the most practicable alternative.

Step 8: Implement the Action

Mitigation measures as outlined in 44 CFR 9.11(d) must be applied to this project. Any other permits required must be secured prior to construction.

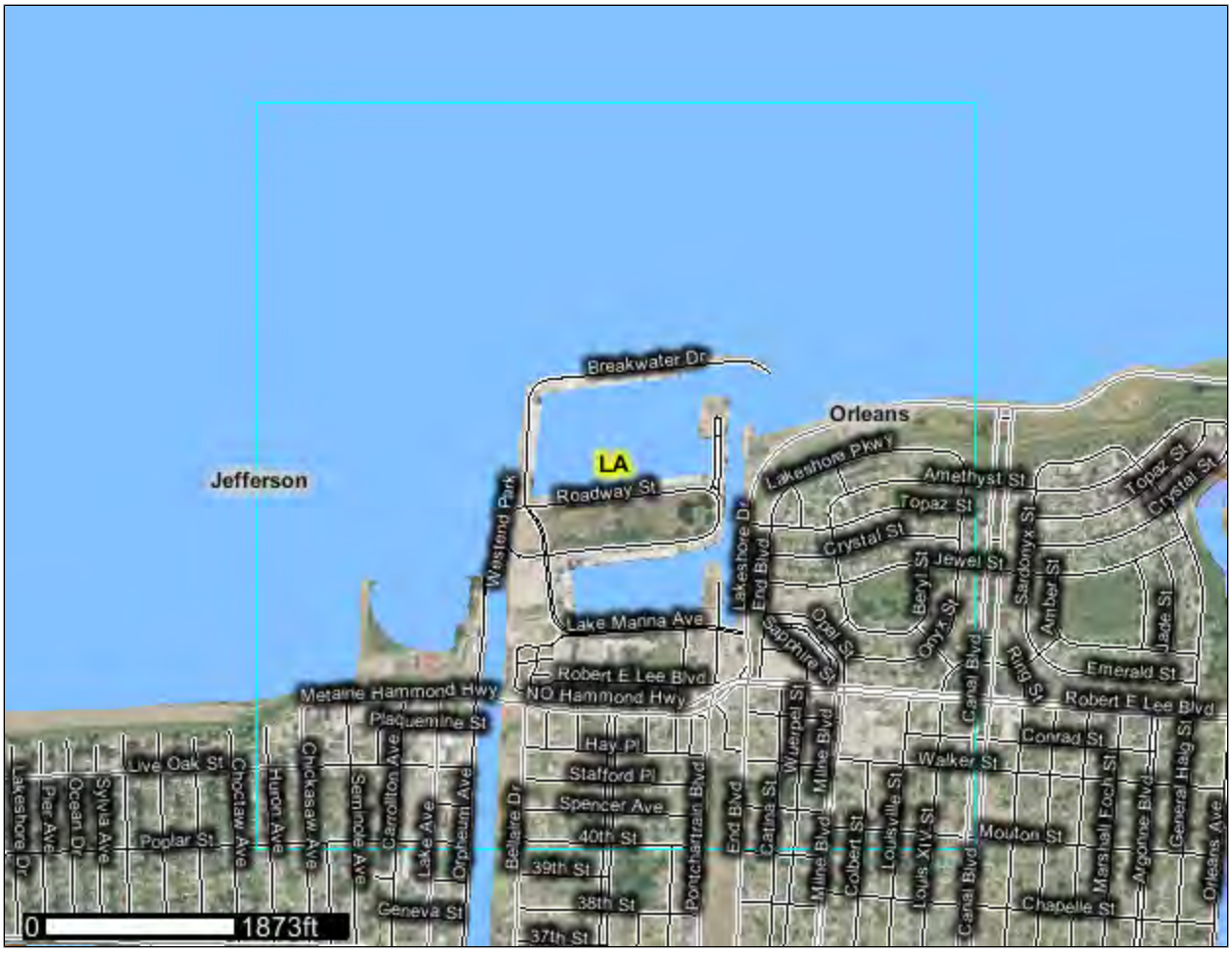
United States Department of Agriculture

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Jefferson Parish, Louisiana, and Orleans Parish, Louisiana

CNO Municipal Yacht Harbor Fishing Pier Project



May 17, 2012

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://soils.usda.gov/sqi/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (http://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://soils.usda.gov/contact/state_offices/).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Soil Data Mart Web site or the NRCS Web Soil Survey. The Soil Data Mart is the data storage site for the official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other

Special Line Features
- Gully
- Short Steep Slope
- Other

Political Features
- Cities

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:17,300 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 15N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Jefferson Parish, Louisiana
Survey Area Data: Version 7, Sep 8, 2009

Soil Survey Area: Orleans Parish, Louisiana
Survey Area Data: Version 7, Sep 8, 2009

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Jefferson Parish, Louisiana (LA051)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
Ka	Kenner muck, drained	100.1	8.5%
W	Water	311.0	26.5%
Subtotals for Soil Survey Area		**411.1**	**35.0%**
Totals for Area of Interest		**1,174.4**	**100.0%**

Orleans Parish, Louisiana (LA071)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
An	Aquents, dredged	97.6	8.3%
AT	Aquents, dredged, frequently flooded	93.9	8.0%
Ke	Kenner muck drained	218.5	18.6%
W	Water	353.3	30.1%
Subtotals for Soil Survey Area		**763.3**	**65.0%**
Totals for Area of Interest		**1,174.4**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the

contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Jefferson Parish, Louisiana

Ka—Kenner muck, drained

Map Unit Setting

Elevation: 0 feet
Mean annual precipitation: 51 to 72 inches
Mean annual air temperature: 59 to 77 degrees F
Frost-free period: 265 to 315 days

Map Unit Composition

Kenner and similar soils: 85 percent

Description of Kenner

Setting

Landform: Marshes
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Herbaceous organic material over fluid clayey alluvium

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (2.00 to 20.00 in/hr)
Depth to water table: About 12 to 48 inches
Frequency of flooding: Rare
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 4.0 mmhos/cm)
Available water capacity: Very high (about 20.9 inches)

Interpretive groups

Land capability (nonirrigated): 4w

Typical profile

0 to 3 inches: Muck
3 to 48 inches: Muck
48 to 96 inches: Muck

W—Water

Map Unit Setting

Mean annual precipitation: 51 to 72 inches
Mean annual air temperature: 59 to 77 degrees F
Frost-free period: 265 to 315 days

Map Unit Composition

Water, large: 100 percent

Orleans Parish, Louisiana

An—Aquents, dredged

Map Unit Setting

Mean annual precipitation: 51 to 75 inches
Mean annual air temperature: 63 to 79 degrees F
Frost-free period: 294 to 365 days

Map Unit Composition

Aquents and similar soils: 90 percent

Description of Aquents

Setting

Landform: Marshes
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None

AT—Aquents, dredged, frequently flooded

Map Unit Setting

Mean annual precipitation: 51 to 75 inches
Mean annual air temperature: 63 to 79 degrees F
Frost-free period: 294 to 365 days

Map Unit Composition

Aquents and similar soils: 90 percent

Description of Aquents

Setting

Landform: Marshes
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Depth to water table: More than 80 inches

Frequency of flooding: Frequent
Frequency of ponding: None

Ke—Kenner muck drained

Map Unit Setting

Elevation: 0 feet
Mean annual precipitation: 51 to 75 inches
Mean annual air temperature: 63 to 79 degrees F
Frost-free period: 294 to 365 days

Map Unit Composition

Kenner and similar soils: 85 percent

Description of Kenner

Setting

Landform: Marshes
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Herbaceous organic material over fluid clayey alluvium

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 12 to 48 inches
Frequency of flooding: Rare
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 4.0 mmhos/cm)
Available water capacity: Very high (about 20.1 inches)

Interpretive groups

Land capability (nonirrigated): 4w

Typical profile

0 to 36 inches: Muck
36 to 40 inches: Clay
40 to 75 inches: Muck

W—Water

Map Unit Setting

Mean annual precipitation: 51 to 75 inches
Mean annual air temperature: 63 to 79 degrees F
Frost-free period: 294 to 365 days

Map Unit Composition

Water, large: 100 percent

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Prime and other Important Farmlands

Orleans Parish, Louisiana

Map symbol	Map unit name	Farmland classification
Cm	Cancienne silt loam	All areas are prime farmland
Co	Cancienne silty clay loam	All areas are prime farmland
Ha	Harahan clay	All areas are prime farmland
Sh	Schriever silty clay loam	All areas are prime farmland
Sk	Schriever clay	All areas are prime farmland

SPECIES LISTED IN THE FISHERY MANAGEMENT PLANS OF THE GULF OF MEXICO FISHERY MANAGEMENT COUNCIL

Common and scientific names of finfishes are from the most recent list of names of fishes published by the American Fisheries Society (Nelson et al. 2004).

Coastal Migratory Pelagics FMP (Gulf and South Atlantic Councils joint plan)

Species in the Management Unit

king mackerel	***Scomberomorus cavalla***
Spanish mackerel	***Scomberomorus maculatus***
cobia	***Rachycentron canadum***

Species in the Fishery but Not in the Management Unit

cero	***Scomberomorus regalis***
little tunny	***Euthynnus alletteratus***
dolphin	***Coryphaena hippurus***
bluefish	***Pomatomus saltatrix*** **(Gulf of Mexico only)**

Red Drum FMP

Species in the Management Unit

red drum	***Sciaenops ocellatus***

Reef Fish FMP

Species in the Management Unit

Snappers - Lutjanidae Family

queen snapper	***Etelis oculatus***
mutton snapper	***Lutjanus analis***
blackfin snapper	***Lutjanus buccanella***
red snapper	***Lutjanus campechanus***
cubera snapper	***Lutjanus cyanopterus***
gray (mangrove) snapper	***Lutjanus griseus***
lane snapper	***Lutjanus synagris***
silk snapper	***Lutjanus vivanus***
yellowtail snapper	***Ocyurus chrysurus***
wenchman	***Pristipomoides aquilonaris***
vermilion snapper	***Rhomboplites aurorubens***

Groupers - Serranidae Family

speckled hind	***Epinephelus drummondhayi***
yellowedge grouper	***Epinephelus flavolimbatus****
goliath grouper	***Epinephelus itajara***
red grouper	***Epinephelus morio***
warsaw grouper	***Epinephelus nigritus****
snowy grouper	***Epinephelus niveatus****
black grouper	***Mycteroperca bonaci***

yellowmouth grouper	***Mycteroperca interstitialis***
gag	***Mycteroperca microlepis***
scamp	***Mycteroperca phenax***
yellowfin grouper	***Mycteroperca venenosa***

* Some recent publications use the genus name *Hyporthodus* rather than *Epinephelus* for yellowedge, warsaw and snowy grouper based on a revision recommended by Craig and Hastings (2007). However, it is the Council's policy to use the names listed by the American Fisheries Society in the reference above.

Tilefishes - Malacanthidae (Branchiostegidae) Family

goldface tilefish	***Caulolatilus chrysops***
blueline tilefish	***Caulolatilus microps***
tilefish	***Lopholatilus chamaeleonticeps***

Jacks - Carangidae Family

greater amberjack	***Seriola dumerili***
lesser amberjack	***Seriola fasciata***
almaco jack	***Seriola rivoliana***
banded rudderfish	***Seriola zonata***

Triggerfishes - Balistidae Family

gray triggerfish	***Balistes capriscus***

Wrasses - Labridae Family

hogfish	***Lachnolaimus maximus***

Common and scientific names of shrimps and lobsters are from the most recent list of names of crustaceans published by the American Fisheries Society (McLaughlin et al. 2005).

Shrimp FMP

Species in the Management Unit

brown shrimp	***Penaeus aztecus***
white shrimp	***Penaeus setiferus***
pink shrimp	***Penaeus duorarum***
royal red shrimp	***Pleoticus robustus***

Spiny Lobster FMP (Gulf and South Atlantic Councils joint plan)

Species in the Management Unit

Caribbean spiny lobster (spiny lobster)	***Panulirus argus***

Common and scientific names of corals are from the most recent list of names of cnidaria and ctenophora published by the American Fisheries Society (Cairns et al. 2002) or from Felder and Camp (2009).

Coral and Coral Reefs FMP

Species in the Management Unit

corals of the class Hydrozoa (stinging and hydrocorals)

corals of the class Anthozoa (stony corals)

Note: The FMP does not list individual species comprising the management unit. The following species are referred to in the FMP as being in the class Hydrozoa and Anthozoa occurring in Gulf of Mexico and/or South Atlantic waters:

Class Hydrozoa

Order Milleporina (fire, stinging corals)

Family Milleporidae

branching fire coral	***Millepora alcicornis***
blade fire coral	***Millepora complanata***
box fire coral	***Millepora squarrosa***

Order Stylasterina (hydrocorals)

	Stylaster duchassaingi
	Stylaster punctata
	Distichopora foliacea
	Pliobothrus symmetricus

Subclass Zoantharia

Order Scleractinia (stony corals)

Family Astrocoeniidae

blushing star coral	***Stephanocoenia michelini***

Family Acroporidae

staghorn coral	***Acropora cervicornis***
elkhorn coral	***Acropora palmata***
fused staghorn	***Acropora prolifera***

Family Agariciidae

lettuce coral	***Agaricia agaricites***
thin leaf lettuce coral	***Agaricia tenifolia***
Lamarck's sheet coral	***Agaricia lamarcki***
fragile saucer coral	***Agaricia fragilis***
saucer coral	***Helioseris cucullata***

Family Faviidae

golfball coral	***Favia fragum***
knob coral	***Favia gravida***
grooved brain coral	***Diploria labyrinthiformis***
knobby brain coral	***Diploria clivosa***
symmetrical brain coral	***Diploria strigosa***

rose coral	***Manicina aerolata aerolata***
	Colpophyllia amaranthus
boulder brain coral	***Colpophyllia natans***
	Colpophyllia breviserialis
tube coral	***Cladocora arbuscula***
thin tube coral	***Cladocora debilis***
great start coral	***Montastrea cavernosa***
boulder star coral	***Montastrea annularis***
mountainous star coral	***Montastrea faveolata***
boulder star coral	***Montastrea franksi***
knobby star coral	***Solenastrea hyades***
smooth star coral	***Solenastrea bournoni***

Family Pocillopridae

striate finger coral	***Madracis myriaster***
ten-ray star coral	***Madracis decactis***
eight-ray finger coral	***Madracis formosa***
yellow pencil coral	***Madracis mirabilis***
pointed pencil coral	***Madracis asperula***
	Madracis brueggemanni

Family Portidae

blue crust coral	***Porites branneri***
finger coral	***Porites porites***
mustard hill coral	***Porites astreoides*** (green and brown color morph)

Family Rhizangiidae

northern star coral	***Astrangia poculata***
	Astrangia danae
dwarf cup coral	***Astrangia solitaria***
hidden cup coral	***Phyllangia americana***

Family Siderastreidae

lesser starlet coral	***Siderastrea radians***
massive starlet coral	***Siderastrea siderea***

Family Fungiidae

	Fungiacyathus pusillus
	Fungiacyathus symmetricus
	Fungiacyathus crispus

Family Oculinidae

zigzag coral	***Madrepora oculata***
Pourtales fan coral	***Madrepora carolina***
compact ivory bush coral	***Oculina arbuscula***
fused ivory tree coral	***Oculina varicosa***
delicate ivory bush coral	***Oculina tenella***
diffuse ivory coral	***Oculina diffusa***
robust ivory tree coral	***Oculina robusta***

Family Meandrinidae	
maze coral	***Meandrina meandrites***
pancake star coral	***Dichocoenia stellaris***
ellipitical star coral	***Dichocoenia stokesi***
pillar coral	***Dendrogyra cylindrus***
Family Mussidae	
large flower coral	***Mussa angulosa***
Atlantic mushroom coral	***Scolymia lacera***
artichoke coral	***Scolymia cubensis***
lesser cactus coral	***Isophyllia multiflora***
sinuous cactus coral	***Isophyllia sinuosa***
rough star coral	***Isophyllastrea rigida***
ridged cactus coral	***Mycetophyllia lamarkiana***
lowridge cactus coral	***Mycetophyllia danaana***
rough cactus coral	***Mycetophyllia ferox***
knobby cactus coral	***Mycetophyllia aliciae***
Family Anthemiphylliidae	
	Anthemiphllia patera patera
Family Caryophyllidae	
	Caryophyllia berteriana
	Caryophyllia horologium
	Caryophyllia polygona
	Caryophyllia cornuformis
	Caryophyllia ambrosia caribbeana
	Caryophyllia parvula
	Concentrotheca laevigate
	Layrinthocyathus facetus
	Layrinthocyathus langi
	Cyathoceras squiresi
	Layrinthocyathus facetus
	Layrinthocyathus langi
	Oxysmilia rotundifolia
	Trochocyathus rawsonii
	Tethocyathus cylindraceus
	Tethocyathus variabilis
papillose cup coral	***Paracyathus pulchullas***
	Deltocyathus moseley
	Deltocyathus calcar
	Deltocyathus italicus
	Deltocyathus eccentricus
	Deltocyathus pourtalesi
smooth flower coral	***Eusmilia fastigiata***
	Pourtalosmilia conferta

speckled cup coral	***Rhizosmilia maculata***
	Stephanocyathus diadema
	Stephanocyathus paliferus
	Stephanocyathus laevifundus
	Stephanocyathus coronatus
	Peponcyathus folliculus
	Peponcyathus stimpsonii
	Desmophyllum cristagalli
	Thalamophyllia gombergi
	Lophelia prolifera
	Anomocora fecunda
	Coenosmilia arbuscula
	Dasmosmilia variegata
	Solenosmilia variabilis
	Asterosmila prolifera
	Asterosmila marchadi
two-tone cup coral	***Phacelocyathus flos***
Family Flabellidae	
	Flabellum moseleyi
	Flabellum fragile
	Javania cailleti
	Polymyces fragilis
	Gardineria paradoxa
Family Guyniidae	
	Guynia annulata
	Schizocyathus fissilis
	Stenocyathus vermiformis
	Pourtalocyathus hispidus
Family Dendrophylliidae	
porus cup coral	***Balanophyllia floridana***
	Balanophyllia palifera
	Dendrophyllia cornucopia
	Dendrophyllia gaditana
	Dendrophyllia alternata
	Enallopsammia profunda
	Enallopsammia rostrata
	Thecopsammia socialis
	Bathypsammia tintinnabulum
	Bathypsammia fallosocialis
	Rhizopsammia manuelensis
	Trochopsammia infundibulum
(invasive species*)* orange cup coral	***Tubastrea coccinea***

Order Antipatharia (black corals)

whip coral	***Cirrhipathes desbonni***
wire coral	***Cirrhipathes leutkeni***
black coral	***Cirrhipathes sp.***
feather black coral	***Antipathes pennacea***
hair net black coral	***Antipathes lenta***
bushy black coral	***Antipathes sp.***

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H:\COUNCIL\species listed in fmps.doc

Appendix C

Agency Correspondence

Appendix C – Table 1. Federal and State Consultations and Persons Contacted

Federal	**FEMA – Lead Agency** Tiffany Spann, Deputy Environmental Liaison Officer FEMA LRO, EHP Dept. 1 Seine Ct New Orleans, LA 70113 **Correspondence Type:** Solicitation of Views (SOV, email) **Date of Correspondence:** May 15, 2012 **Sent to:** LDEQ, LDWF, LDNR-OCM, USACOE, NOAA/NMFS, USFWS, USEPA, FEMA
	USFWS Amy Trahan Louisiana Ecological Services 646 Cajundome Blvd., Suite 400 Lafayette, La. 70506 **Correspondence Type:** Solicitation of Views (email) **Date of Correspondence:** 5/15/2012 **Response:** (letter dated June 05, 2012) 6/07/2012 **Received from:** Brad Rieck, Deputy Field Supervisor
	USACOE Amy Powell New Orleans District Headquarters 7400 Leake Avenue New Orleans, LA 70118 **Correspondence Type:** Solicitation of Views (email) **Date of Correspondence:** 5/15/2012 **Response:** (letter dated June 04, 2012) 6/06/2012 **Received from:** Karen L. Oberlies, SOV Manager, (MVN)
	EPA Tamara Mick / Raul Gutierrez US EPA Region 6 - Wetlands Section EPA Region 6 Main Office 1445 Ross Avenue, Suite 1200 Dallas, Texas 75202 **Correspondence Type:** Solicitation of Views (email) **Date of Correspondence:** 5/15/2012
	NOAA - NMFS Richard Hartman NMFS Baton Rouge Field Office c/o LSU South Stadium Road Military Science Bldg, Room 266 Baton Rouge, LA 70803 **Correspondence Type:** Solicitation of Views (email) **Date of Correspondence:** 5/15/2012 **Response:** (email) 5/15/2012
	NOAA – NMFS Eric Hawk, ESA Section 7 Coordinator/Endangered Species Biologist Southeast Regional Office Protected Resources Division 263 13th Avenue South Saint Petersburg, Florida 33701 **Phone:** (727) 824-5312 **Fax:** (787) 851-5588 **Correspondence Type:** Inquiry regarding sea turtle occurrences in Lake Pontchartrain, LA. **Date of Correspondence**: 6/05/2012 **Response:** (email) 6/05/2012

	USFWS Amy Trahan Louisiana Ecological Services 646 Cajundome Blvd., Suite 400 Lafayette, La. 70506 **Correspondence Type:** FEMA ESA Determination Concurrence Letter **Date of Correspondence:** 7/24/2012 **Received from:** Brad Rieck, Deputy Field Supervisor
State	**LDNR** Karl Morgan Office of Coastal Management - Permits & Mitigation Division 617 North Third Street LaSalle Building Baton Rouge, Louisiana 70802 **Correspondence Type:** Solicitation of Views (email) **Date of Correspondence:** 5/15/2012
	LDWF Carolyn Michon Natural Heritage Program Department of Wildlife and Fisheries P.O. Box 98000 Baton Rouge, LA 70898-9000 **Correspondence Type:** Solicitation of Views (email) **Date of Correspondence:** 5/15/2012 **Response:** (letter dated June 06, 2012) 6/11/2012 **Received from:** Carolyn Michon for Amity Bass, Coordinator
	LDEQ Beth Altazan-Dixon Performance Management LDEQ/Business and Community Outreach Division Office of the Secretary P.O. Box 4301 (602 N. 5th Street) Baton Rouge, LA 70821-4301 **Correspondence Type:** Solicitation of Views (email) **Date of Correspondence:** 5/15/2012

From:	kristiaan.stuart@associates.dhs.gov
Sent:	
To:	beth.dixon@la.gov; amy.e.powell.mvn02@army.mil; mick.tamara@epamail.epa.gov; cmichon@wlf.la.gov; Richard.Hartman@noaa.gov; Karl.morgan@la.gov; amy_trahan@fws.gov
Cc:	Borden, Adam
Subject:	Solicitation of Views - FEMA Project: City of New Orleans, Municipal Yacht Harbor Fishing Pier
Attachments:	PW 11698.5 Proposed Project Figures 1 -3.pdf

U.S. Department of Homeland Security
Federal Emergency Management Agency
FEMA-DR 1603/1607 LA
1 Seine Court
New Orleans, LA 70114

May 11, 2012

MEMORANDUM TO: See Distribution

SUBJECT: Scoping Notification/Solicitation of Views

To Whom It May Concern:

The Department of Homeland Security's Federal Emergency Management Agency (FEMA) is mandated by the U.S. Congress to administer Federal disaster assistance pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), PL 93-288, as amended. The Stafford Act authorizes FEMA's Public Assistance Program to provide grant assistance for debris removal, emergency protective measures, and the repair, replacement, or restoration of disaster damaged, publicly owned facilities or certain private non-profit organizations.

On August 29, 2005 the Hurricane Katrina caused extensive damage from flooding to the City of New Orleans' Municipal Yacht Harbor fishing pier, electrical systems, outdoor lighting and a public restroom facility (Figure 1 & 2).The applicant is proposing to demolish and remove the original damaged fishing pier facility and construct a new fishing pier in an alternate location (approximately 500-ft north-northeast of the piers original location). The alternate location will provide better recreational fishing away from the outfall of the USACOE's 17th Street Canal and minimizes the encroachment of a proposed kite surfing launch area. The remaining land based facilities, as mentioned, are also proposed to be demolished and/or rebuilt in their original locations and capacity. The proposed fishing pier will begin as an approximately 122 ft long concrete walk and ramp and then transition into a wooden boardwalk supported by Class B piles driven to a depth of 35 ft to 55 ft depending on variances in dynamic capacity and substrate

properties. The wooden extent of the proposed pier will be approximately 335 linear feet and 7 ft wide until it transitions to 12 ft wide for the remaining length (Figure 3).

To ensure compliance with the National Environmental Policy Act (NEPA), Executive Orders (EOs), and other applicable Federal regulations, we will prepare an Environmental Assessment (EA) to address the proposed construction of the damaged land based facilities, the demolition and removal of the original and damaged fishing pier and the construction of a new fishing pier at an alternate location. To assist us in preparation of the EA, we request that your office review the attached documents for a determination as to the requirements of any formal consultations, regulatory permits, determinations, or authorizations.

The attached figures show the location for a proposed project for which FEMA Public Assistance funding has been requested.

Please respond within 30 calendar days of the date of this scoping notification.

Comments may be faxed to (504) 762-2323, emailed to kristiaan.stuart@associates.dhs.gov or mailed to the attention of Kristiaan Stuart, Environmental and Historical Preservation Department, at the address above.

For questions regarding this matter, please contact Kristiaan Stuart, Environmental Protection Specialist at (504) 762-2361.

Distribution: LDEQ, USEPA, USFWS, USACE, LDWF, LDNR

Regards,

Tiffany Spann-Winfield
Deputy Environmental Liaison Officer
1 Seine Ct.
New Orleans, LA 70113
(504) 218-6800
(504) 762-2918
Tiffany.Spann@dhs.gov

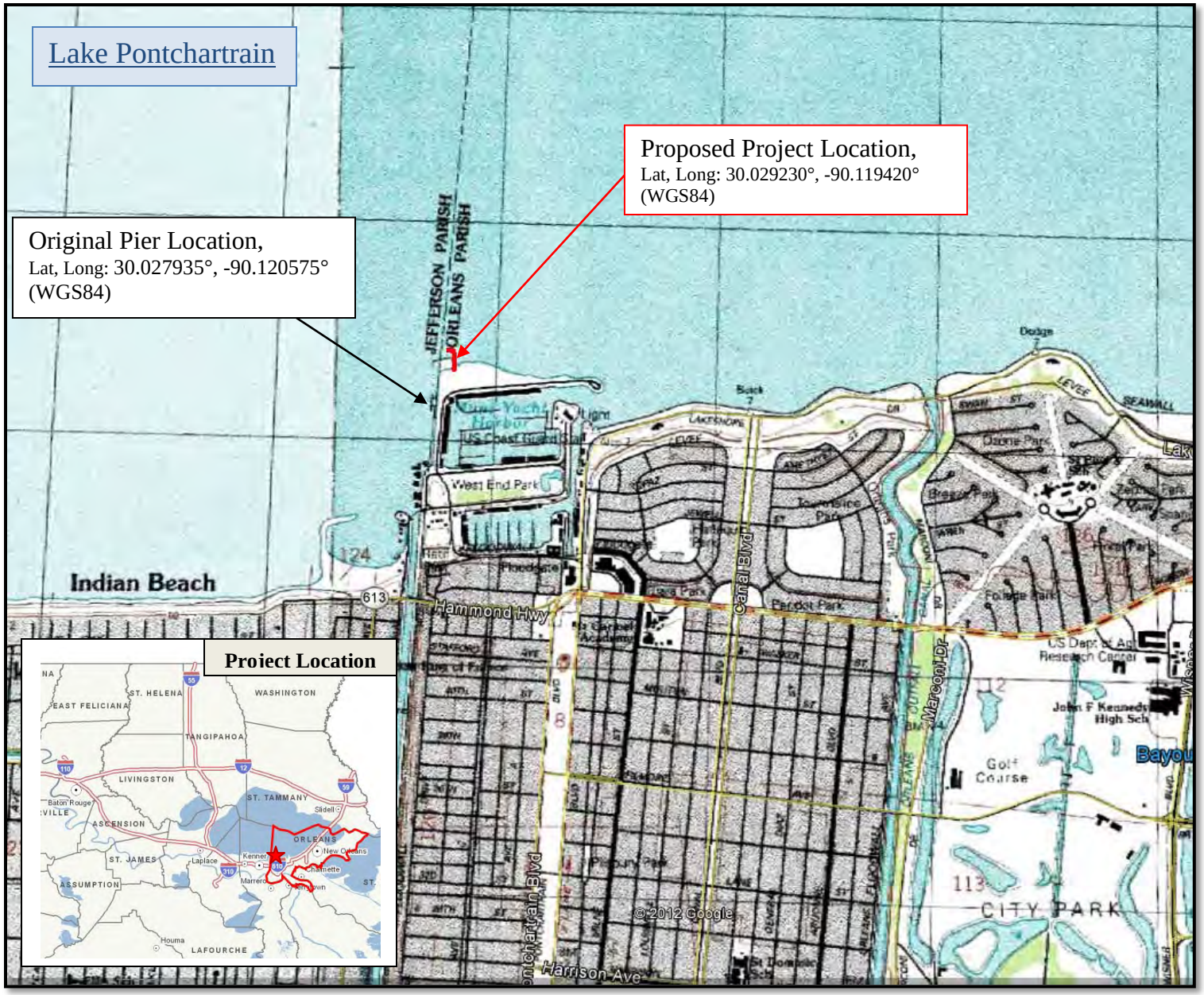


Figure 1 – Municipal Yacht Harbor Fishing Pier Proposed Project Location (FEMA 1603 DR LA – PW 11698 / AIDB 1776)

Figure 2 – Municipal Yacht Harbor Fishing Pier Proposed Project Site Map (FEMA 1603 DR LA – PW 11698 / AIDB 1776)

Figure 3 – Proposed Project Structural Action Areas (FEMA 1603 DR LA – PW 11698 / AIDB 1776)

From:	Richard Hartman
To:	Stuart, Kristiaan (CTR)
Subject:	Re: Solicitation of Views - FEMA Project: City of New Orleans, Municipal Yacht Harbor Fishing Pier
Date:	Tuesday, May 15, 2012 1:31:41 PM

Kristiaan - The proposed pier in Lake Pontchartrain would be located in an area categorized as essential fish habitat under provisions of the Magnuson-Stevens Fishery Conservation and Management Act. Categories of EFH that potentially could be impacted by pier construction consist of estuarine water bottoms and estuarine water column. Federally managed species and life stages in the project area consist of larvae and juveniles of white shrimp, brown shrimp and red drum. The project area also provides habitat supportive of economically important marine fishery species, such as blue crab, spotted seatrout, sand seatrout, southern flounder, gulf menhaden and Atlantic croaker. The Environmental Assessment for the project should include sections on EFH and marine fishery species that fully describe those resources and evaluate likely project impacts on those resources. Regarding impact estimates, NMFS would not disagree with a determination that, while the project would result in temporary adverse impacts to those resources from construction activities, it would not result in a significant long term adverse impact.

Richard Hartman
National Marine Fisheries Service

On Tue, May 15, 2012 at 10:44 AM, Stuart, Kristiaan (CTR) <Kristiaan.Stuart@associates.fema.dhs.gov> wrote:

> **U.S. Department of Homeland Security**
>
> **Federal Emergency Management Agency**
>
> **FEMA-DR 1603/1607 LA**
>
> **1 Seine Court**
>
> **New Orleans, LA 70114**
>
> May 11, 2012
>
> MEMORANDUM TO: See Distribution
>
> SUBJECT: Scoping Notification/Solicitation of Views
>
> To Whom It May Concern:
>
> The Department of Homeland Security's Federal Emergency Management Agency (FEMA) is mandated by the U.S. Congress to administer Federal disaster assistance pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), PL 93-288, as amended. The Stafford Act authorizes FEMA's Public Assistance Program to provide grant assistance for debris removal, emergency protective measures, and the repair, replacement, or restoration of disaster damaged, publicly owned facilities or certain private non-profit organizations.
>
> On August 29, 2005 the Hurricane Katrina caused extensive damage from flooding

to the City of New Orleans' Municipal Yacht Harbor fishing pier, electrical systems, outdoor lighting and a public restroom facility (Figure 1 & 2).The applicant is proposing to demolish and remove the original damaged fishing pier facility and construct a new fishing pier in an alternate location (approximately 500-ft north-northeast of the piers original location). The alternate location will provide better recreational fishing away from the outfall of the USACOE's 17th Street Canal and minimizes the encroachment of a proposed kite surfing launch area. The remaining land based facilities, as mentioned, are also proposed to be demolished and/or rebuilt in their original locations and capacity. The proposed fishing pier will begin as an approximately 122 ft long concrete walk and ramp and then transition into a wooden boardwalk supported by Class B piles driven to a depth of 35 ft to 55 ft depending on variances in dynamic capacity and substrate properties. The wooden extent of the proposed pier will be approximately 335 linear feet and 7 ft wide until it transitions to 12 ft wide for the remaining length (Figure 3).

To ensure compliance with the National Environmental Policy Act (NEPA), Executive Orders (EOs), and other applicable Federal regulations, we will prepare an Environmental Assessment (EA) to address the proposed construction of the damaged land based facilities, the demolition and removal of the original and damaged fishing pier and the construction of a new fishing pier at an alternate location. To assist us in preparation of the EA, we request that your office review the attached documents for a determination as to the requirements of any formal consultations, regulatory permits, determinations, or authorizations.

The attached figures show the location for a proposed project for which FEMA Public Assistance funding has been requested.

Please respond within 30 calendar days of the date of this scoping notification.

Comments may be faxed to (504) 762-2323, emailed to kristiaan.stuart@associates.dhs.gov or mailed to the attention of Kristiaan Stuart, Environmental and Historical Preservation Department, at the address above.

For questions regarding this matter, please contact Kristiaan Stuart, Environmental Protection Specialist at (504) 762-2361.

Distribution: LDEQ, USEPA, USFWS, USACE, LDWF, LDNR

Regards,

Tiffany Spann-Winfield

Deputy Environmental Liaison Officer

1 Seine Ct.

New Orleans, LA 70113

(504) 218-6800

(504) 762-2918

Tiffany.Spann@dhs.gov

Kristiaan Stuart (CTR)

Fluor - TRS Contractor

Federal Emergency Management Agency

1 Seine Court

New Orleans, LA 70114

(504) 762-2361 (Desk)

E-mail: kristiaan.stuart@associates.dhs.gov

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

JUN 04 2012

REPLY TO
ATTENTION OF

Operations Division
Operations Manager,
Completed Works

Ms. Kristiaan Stuart
FEMA
1 Seine Court
New Orleans, Louisiana 70114

Dear Ms. Stuart:

This is in response to your Solicitation of Views request dated May 15, 2012, concerning the municipal yacht harbor fishing pier, at New Orleans, Louisiana, in Orleans Parish.

We have reviewed your request for potential Department of the Army regulatory requirements and impacts on any Department of the Army projects.

We do not anticipate any adverse impacts to any Corps of Engineers projects.

We have reviewed your project as proposed and determined that a Department of the Army permit under Section 10 of the Rivers and Harbors Act will be required.

Please be advised that this property is in the Louisiana Coastal Zone. For additional information regarding coastal use permit requirements, contact Ms. Christine Charrier, Coastal Management Division, Louisiana Department of Natural Resources at (225) 342 7953.

You are advised that this approved jurisdictional determination is valid for a period of 5 years from the date of this letter unless new information warrants revision prior to the expiration date or the District Commander has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.

Off-site locations of activities such as borrow, disposals, haul-and detour-roads and work mobilization site developments may be subject to Department of the Army regulatory requirements and may have an impact on a Department of the Army project.

You should apply for said permit well in advance of the work to be performed. The application should include sufficiently detailed maps, drawings, photographs, and descriptive text for accurate evaluation of the proposal.

Please contact Mr. Robert Heffner, of our Regulatory Branch by telephone at (504) 862-1288, or by e-mail at Robert.A.Heffner@usace.army.mil for questions concerning wetlands determinations or need for on-site evaluations. Questions concerning regulatory permit requirements may be addressed to Mr. Michael Farabee by telephone at (504) 862-2292 or by e-mail at Michael.V.Farabee@usace.army.mil.

Future correspondence concerning this matter should reference our account number MVN-2012-01294-SA. This will allow us to more easily locate records of previous correspondence, and thus provide a quicker response.

Sincerely,

Karen L. Oberlies

Karen L. Oberlies
Solicitation of Views Manager

Copy Furnished:

Ms. Christine Charrier
Coastal Zone Management
Department of Natural Resources
Post Office Box 44487
Baton Rouge, Louisiana 70804-4487

From: Eric Hawk
To: Stuart, Kristiaan (CTR)
Subject: Re: Sea Turtle Obs in Lake Pontchartrain Louisiana
Date: Tuesday, June 05, 2012 1:28:57 PM

---

i have confirmed with wendy teas, our noaa sefsc sea turtle strandings coordinator, that we get reports of turtle strandings from lake pontchartrain. you can acess strandings data through our sefsc website, and feel free to contact ms. teas by e-mail: wendy.teas@noaa.gov

On Tue, Jun 5, 2012 at 1:29 PM, Stuart, Kristiaan (CTR) <Kristiaan.Stuart@associates.fema.dhs.gov> wrote:

> Mr. Hawk-
>
> I am preparing an EA for a pier replacement project on the south shore of Lake Pontchartrain Louisiana (30.030026°, -90.119861° WGS84). I am writing you informally to see if you know of any occurrences of federally listed sea turtles (i.e., Green, Hawksbill, Kemp's Ridley, Leatherback, Loggerhead) in Lake Pontchartrain. I have uncovered some anecdotal references including a single reference to a Kemp's Ridley sea turtle being found in a TED device that had been wired shut (see below) but this could have also been Lake Borgne which is more likely.
>
> Thank you in advance,
>
> Kristiaan Stuart (CTR)
>
> Fluor - TRS Contractor
>
> Federal Emergency Management Agency
>
> 1 Seine Court
>
> New Orleans, LA 70114
>
> (504) 762-2361 (Desk)
>
> E-mail: kristiaan.stuart@associates.dhs.gov

http://www.seaturtle.org/mtn/archives/mtn83/mtn83p19.shtml

NOAA Nabs Turtle Killer

The US National Oceanic and Atmospheric Administration (NOAA) has charged the captain and the owner of a Louisiana shrimp trawler with civil violations of turtle excluder device regulations and killing a Kemp's ridley sea turtle. Senior enforcement attorney Karen Antrim Raine of NOAA's Office of General Counsel, prosecuting the case, put a civil penalty of US$6,000 in a Notice of Violation and Assessment against the skipper for violations that occurred in Lake Pontchartrain, LA. A US Coast Guard team boarded the trawler and found the turtle excluder device sewn shut, thus preventing the escape of a sea turtle that became entrapped in it. Source: *CommercePeople*, September/October, 1998. <http://www.doc.gov/opa/photo/people/page14.htm>

--
Eric G. Hawk
NMFS Southeast Region
ESA Section 7 Coordinator

United States Department of the Interior

FISH AND WILDLIFE SERVICE
646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

June 5, 2012

Ms. Kristiaan Stuart
Environmental and Historical Preservation Department
Federal Emergency Management Agency
1 Seine Court
New Orleans, Louisiana 70114

Dear Ms. Stuart:

Please reference your May 15, 2012, letter, requesting our review of the Department of Homeland Security's Federal Emergency Management Agency's (FEMA) proposal to remove the City of New Orleans' Municipal Yacht Harbor fishing pier facility and construct a new fishing pier in an alternate location in New Orleans, Orleans Parish, Louisiana. The Fish and Wildlife Service (Service) has reviewed the information you provided, and offers the following comments in accordance with the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Federally listed as an endangered species, West Indian manatees (*Trichechus manatus*) occasionally enter Lakes Pontchartrain and Maurepas, and associated coastal waters and streams during the summer months (i.e., June through September). Manatee occurrences appear to be increasing, and they have been regularly reported in the Amite, Blind, Tchefuncte, and Tickfaw Rivers, and in canals within the adjacent coastal marshes of Louisiana. They have also been occasionally observed elsewhere along the Louisiana Gulf coast. The manatee has declined in numbers due to collisions with boats and barges, entrapment in flood control structures, poaching, habitat loss, and pollution. Cold weather and outbreaks of red tide may also adversely affect these animals.

All contract personnel associated with the project should be informed of the potential presence of manatees and the need to avoid collisions with manatees, which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973. All construction personnel are responsible for observing water-related activities for the presence of manatee(s). Temporary signs should 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), and at least one sign should be placed where it is visible to the vessel operator. Siltation barriers, if used, should be made of material in which manatees could not become entangled, and should be properly secured and monitored. If a manatee is sighted within 100 yards of the active work zone, special operating conditions should

be implemented, including: no operation of moving equipment within 50 feet of a manatee; all vessels should operate at no wake/idle speeds within 100 yards of the work area; and siltation barriers, if used, should 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. Any manatee sighting should be immediately reported to the Service's Lafayette, Louisiana Field Office (337/291-3100) and the Louisiana Department of Wildlife and Fisheries, Natural Heritage Program (225/765-2821).

The Gulf sturgeon (*Acipenser oxyrhynchus desotoi*), federally listed as a threatened species, is an anadromous fish that occurs in many rivers, streams, and estuarine waters along the northern Gulf coast between the Mississippi River and the Suwannee River, Florida. In Louisiana, Gulf sturgeon have been reported at Rigolets Pass, rivers and lakes of the Lake Pontchartrain basin, and adjacent estuarine areas. Spawning occurs in coastal rivers between late winter and early spring (i.e., March to May). Adults and sub-adults may be found in those rivers and streams until November, and in estuarine or marine waters during the remainder of the year. Sturgeon less than two years old appear to remain in riverine habitats and estuarine areas throughout the year, rather than migrate to marine waters. Habitat alterations such as those caused by water control structures that limit and prevent spawning, poor water quality, and over-fishing have negatively affected this species.

On March 19, 2003, the Service and the National Marine Fisheries Service (NMFS) published a final rule in the Federal Register (Volume 68, No. 53) designating critical habitat for the Gulf sturgeon in Louisiana, Mississippi, Alabama, and Florida. Portions of the Pearl and Bogue Chitto Rivers, Lake Pontchartrain east of the Lake Pontchartrain Causeway, all of Little Lake, The Rigolets, Lake St. Catherine, and Lake Borgne within Louisiana were included in that designation. The primary constituent elements essential for the conservation of Gulf sturgeon are those habitat components that support feeding, resting, sheltering, reproduction, migration, and physical features necessary for maintaining the natural processes that support those habitat components; those elements should be considered when determining potential project impacts. The primary constituent elements for Gulf sturgeon critical habitat include:

- abundant prey items within riverine habitats for larval and juvenile life stages, and within estuarine and marine habitats for juvenile, sub-adult, and adult life stages;

- riverine spawning sites with substrates suitable for egg deposition and development, such as limestone outcrops and cut limestone banks, bedrock, large gravel or cobble beds, marl, soapstone, or hard clay;

- riverine aggregation areas, also referred to as resting, holding and staging areas, used by adult, sub-adult, and/or juveniles, generally, but not always, located in holes below normal river bend depths, believed necessary for minimizing energy expenditures during freshwater residency and possibly for osmoregulatory functions;

- a flow regime (i.e., the magnitude, frequency, duration, seasonality, and rate-of-change of freshwater discharge over time) necessary for normal behavior, growth, and survival of all life stages in the riverine environment, including migration, breeding site selection,

courtship, egg fertilization, resting, and staging; and necessary for maintaining spawning sites in suitable condition for egg attachment, egg sheltering, resting, and larvae staging;

- water quality, including temperature, salinity, pH, hardness, turbidity, oxygen content, and other chemical characteristics, necessary for normal behavior, growth, and viability of all life stages;

- sediment quality, including texture and other chemical characteristics, necessary for normal behavior, growth, and viability of all life stages; and

- safe and unobstructed migratory pathways necessary for passage within and between riverine, estuarine, and marine habitats (e.g., a river unobstructed by a permanent structure, or a dammed river that still allows for passage).

In that critical habitat designation, responsibility for consultation with specific Federal agencies was also identified for the Service and for the NMFS. For estuarine waters in Louisiana, the NMFS is responsible for consultations regarding impacts to the sturgeon and its critical habitat with all Federal agencies, except the Department of Transportation, the Environmental Protection Agency, the U.S. Coast Guard, and the Federal Emergency Management Agency, which consult with the Service. In riverine waters, the Service is responsible for all consultations regarding Gulf sturgeon and critical habitat, while in marine waters the NMFS is responsible for consultation. Should the proposed project directly or indirectly affect the Gulf sturgeon or its critical habitat in Louisiana, further consultation with this office will be necessary.

The proposed project may impact wetlands. For a complete jurisdictional wetland delineation of the proposed project, please contact Mr. Robert Heffner (504/862-2274) at the New Orleans District, U.S. Army Corps of Engineers (Corps). If the Corps determines that the proposed project is within their regulatory jurisdiction, official U.S. Fish and Wildlife Service comments will be provided in response to the corresponding Public Notice.

We appreciate the opportunity to provide comments in the planning stages of this proposed project. If you need further assistance, please contact Amy Trahan (337/291-3126) of this office.

Sincerely,

Brad Rieck
Deputy Field Supervisor
Louisiana Ecological Services Office

cc: Corps of Engineers, New Orleans, LA
LDWF, Natural Heritage Program, Baton Rouge, LA

BOBBY JINDAL
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE AND FISHERIES
OFFICE OF WILDLIFE

ROBERT J. BARHAM
SECRETARY
JIMMY L. ANTHONY
ASSISTANT SECRETARY

Date	June 6, 2012
Name	Kristiaan Stuart
Company	FEMA
Street Address	1 Seine Ct
City, State, Zip	New Orleans, LA 70113
Project	City of New Orleans Municipal Yacht Harbor Fishing Pier
Project ID	2442012
Invoice Number	12060607

Personnel of the Habitat Section of the Coastal & Non-Game Resources Division have reviewed the preliminary data for the captioned project. After careful review of our database, no impacts to rare, threatened, or endangered species or critical habitats are anticipated for the proposed project. No state or federal parks, wildlife refuges, scenic streams, or wildlife management areas are known at the specified site within Louisiana's boundaries.

The Louisiana Natural Heritage Program (LNHP) has compiled data on rare, endangered, or otherwise significant plant and animal species, plant communities, and other natural features throughout the state of Louisiana. Heritage reports summarize the existing information known at the time of the request regarding the location in question. The quantity and quality of data collected by the LNHP are dependent on the research and observations of many individuals. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Louisiana have not been surveyed. This report does not address the occurrence of wetlands at the site in question. Heritage reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. LNHP requires that this office be acknowledged in all reports as the source of all data provided here. If at any time Heritage tracked species are encountered within the project area, please contact the LNHP Data Manager at 225-765-2643. If you have any questions, or need additional information, please call 225-765-2357.

Sincerely,

for Amity Bass, Coordinator
Natural Heritage Program

BOBBY JINDAL
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE AND FISHERIES
OFFICE OF WILDLIFE

ROBERT J. BARHAM
SECRETARY
JIMMY L. ANTHONY
ASSISTANT SECRETARY

INVOICE

RETAIN THIS COPY FOR YOUR RECORDS

Date	June 6, 2012
Invoice Number	12060607
Project	City of New Orleans Municipal Yacht Harbor Fishing Pier
Name	Kristiaan Stuart
Company	FEMA
Street Address	1 Seine Ct
City, State, Zip	New Orleans, LA 70113
Number of Quads Reviewed	1
Total Due	$0.00

Payment should be made to "Louisiana Department of Wildlife & Fisheries" within 30 days of the date of this invoice. Please include the invoice number on your check and return a copy of this invoice with your remittance to the following address:

Louisiana Department of Wildlife & Fisheries
Attn: Jennifer Riddle
P.O. Box 80399
Baton Rouge, LA 70898-0399

Should you have any questions regarding this invoice, for review of the Louisiana Natural Heritage database for information on known sensitive elements at a charge of $20.00 per quad reviewed, please contact LNHP at (225) 765-2357.

BOBBY JINDAL
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE AND FISHERIES
OFFICE OF WILDLIFE

ROBERT J. BARHAM
SECRETARY
JIMMY L. ANTHONY
ASSISTANT SECRETARY

INVOICE

RETURN THIS COPY OF INVOICE WITH PAYMENT

Date	June 6, 2012
Invoice Number	12060607
Project	City of New Orleans Municipal Yacht Harbor Fishing Pier
Name	Kristiaan Stuart
Company	FEMA
Street Address	1 Seine Ct
City, State, Zip	New Orleans, LA 70113
Number of Quads Reviewed	1
Total Due	$0.00

Payment should be made to "Louisiana Department of Wildlife & Fisheries" within 30 days of the date of this invoice. Please include the invoice number on your check and return a copy of this invoice with your remittance to the following address:

Louisiana Department of Wildlife & Fisheries
Attn: Jennifer Riddle
P.O. Box 80399
Baton Rouge, LA 70898-0399

Should you have any questions regarding this invoice, for review of the Louisiana Natural Heritage database for information on known sensitive elements at a charge of $20.00 per quad reviewed, please contact LNHP at (225) 765-2357.

U.S. Department of Homeland Security
Federal Emergency Management Agency
Louisiana Recovery Office
#1 Seine Court, Room 1065
New Orleans, Louisiana 70114
(504) 762-2000 office
(504) 762-2410 fax

June 28, 2012

David M. Bernhart
Asst. Regional Administrator
NOAA Fisheries Service
Southeast Regional Office
Protected Resources Division
263 13th Avenue South
Saint Petersburg, Florida 33701

SUBJECT: Informal Consultation, Request for Endangered Species Act Determination
Concurrence for the: loggerhead, Kemp's ridley, & green sea turtles
City of New Orleans' Municipal Yacht Harbor (applicant)
Municipal Yacht Harbor Fishing Pier Removal and Replacement (project)
FEMA-DR-1603, PW 11698, AIDB 1776

Dear Mr. Bernhart:

The Federal Emergency Management Agency (FEMA) is reviewing the potential funding, pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), PL 93-288, as amended; of a pier removal and alternate location replacement project for the City of New Orleans (applicant). The project area is located on the southern shoreline of Lake Pontchartrain, Louisiana at the City of New Orleans Municipal Yacht Harbor in the West End neighborhood area (Figure 1). The proposed project has elements in both Jefferson and Orleans Parish's. Jefferson Parish follows the western shoreline and includes the original pier location and Orleans Parish adjoins Jefferson Parish to the east and includes the proposed new pier location (Figures 1 & 2).

Under Section 7 (a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) (ESA), FEMA is requesting the NOAA Fisheries Service (NMFS) concurrence for a "*May Affect, but Not Likely to Adversely Affect*" (NLAA) determination for the green, Kemp's ridley and loggerhead sea turtles given the behavioral attributes and biological needs of each species, existing habitat conditions within the action area (Figure 2) and the implementation of project conservation measures. FEMA has initiated informal consultation, separately, with USFWS regarding federally listed species under its purview with FEMA.

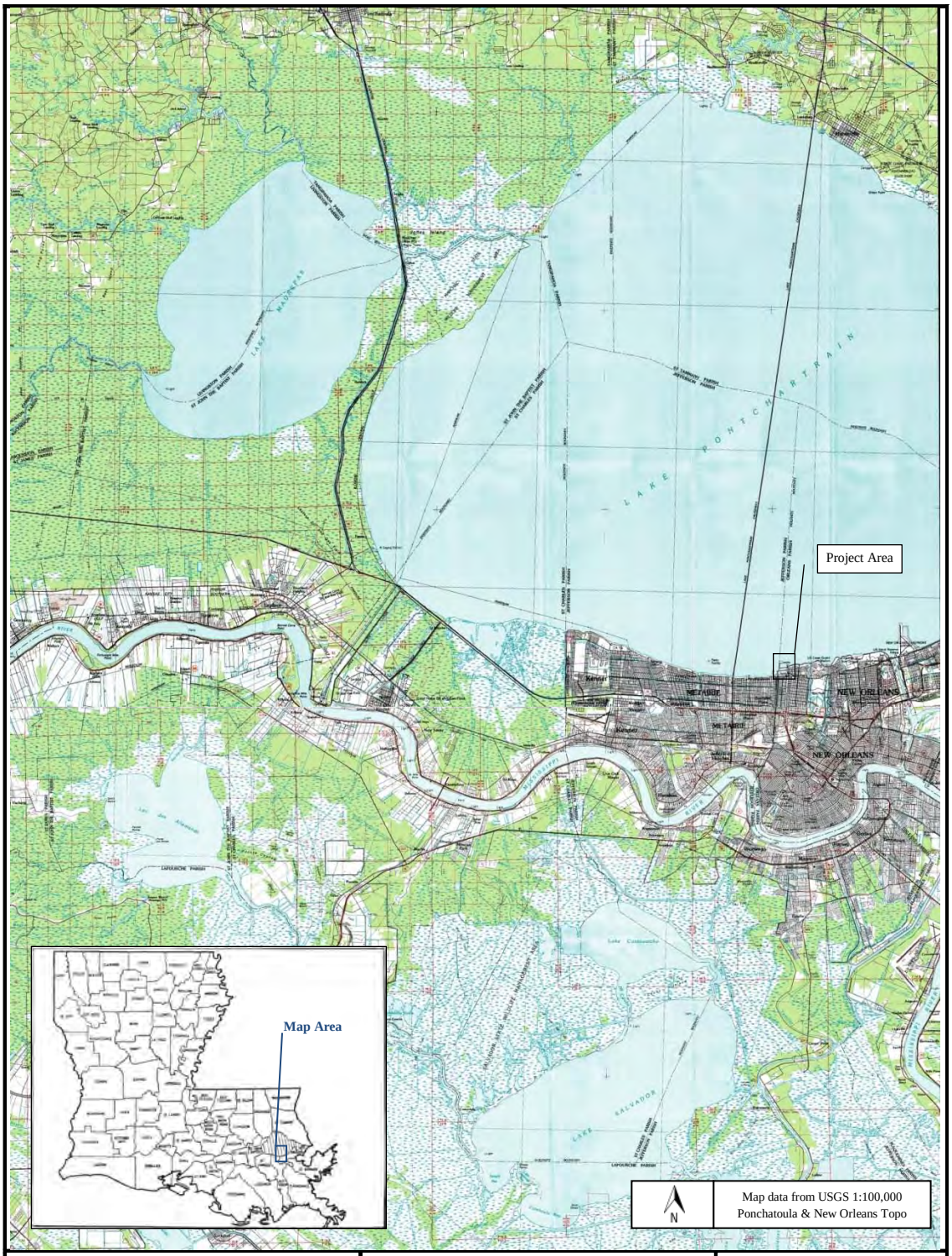
On June 05, 2012 our office contacted fisheries biologist Eric Hawk from the NOAA Fisheries Service, Southeast Regional Office regarding the potential for federally listed sea turtles to be present in Lake Pontchartrain, Louisiana. Mr. Hawk in consultation with Wendy Teas (NOAA's

SEFSC Sea Turtle Strandings Coordinator) confirmed that the loggerhead sea turtle is a known occurrence and to a lesser extent Kemp's ridley and green sea turtles are potentially present as well.

On May 15, 21012 our office contacted Lead Fisheries Biologist Richard Hartman (NOAA Fisheries Service, Baton Rouge Field Office) for a solicitation of views (SOV) request concerning this project. Mr. Hartman identified habitat components and fish species for consideration of Essential Fish Habitat (EFH) under the provisions of the Magnuson-Stevens Fishery Conservation and Management Act. Mr. Hartman also identified the Gulf sturgeon for consideration under the ESA. As part of an Environmental Assessment under the National Environmental Policy Act (NEPA) that is being prepared by our office for this project EFH for those species identified will be addressed. The Gulf sturgeon and the West Indian manatee are under the purview of USFWS for FEMA related ESA Section 7 consultations and therefore we have initiated consultation with the USFWS' Louisiana Ecological Service's Office in Lafayette, Louisiana for those species under the ESA and the Marine Mammal Protection Act of 1972 (MMPA), respectively.

Additionally our office is aware of bottlenose dolphin (*Tursiops truncatus*) sightings in Lake Pontchartrain but consider these sightings outliers to typical bottlenose dolphin behavior and habitat selection. The relatively low salinity conditions in Lake Pontchartrain have been observed to actually be deleterious to bottlenose dolphins (Holyoake *et al.* 2009). Therefore FEMA under the MMPA is issuing a "*No Effect*" determination for the proposed projects potential impacts to bottlenose dolphin.

A site visit was conducted by FEMA's New Orleans LRO, Environmental Historic Preservation Department on June 08, 2012 at the City of New Orleans' Municipal Yacht Harbor. The site visit was conducted by Adam Borden (Lead Environmental Protection Specialist) and Kristiaan Stuart (Environmental Protection Specialist). A reconnaissance level survey was conducted during the site visit to assess available habitat for federally listed species, the presence or absence of sensitive habitat areas including wetlands and determine the proposed project layout plans relative to any sensitive species or habitat areas.



FEMA – 1603-DR-LA **AIDB #1776**	City of New Orleans Municipal Yacht Harbor Pier Replacement	**Figure 1** Project Vicinity

FEMA – 1603-DR-LA **AIDB #1776**	City of New Orleans Municipal Yacht Harbor Pier Replacement	**Figure 2** Project Area – Aerial View

Site Conditions

Site conditions were assessed during the reconnaissance survey on June 08, 2012. Meteorological conditions that day included low clouds with light rain, air temperature at 82°F, and medium winds S-SW at 8 – 11 mph. A list of all species encountered was taken during the site visit (see Attachments).

Original Pier Location

The first location assessed was the original pier location where remnants (mostly vertical piles) of the pier still remain. The pier piles were submerged in water ranging in depth of approximately 6-inches to several feet. The submerged portions of the piles were covered in filamentous algae and did not appear to have any bivalves attached to them. As with most piers it is likely these piles offer anchoring and feeding habitat for invertebrates and feeding habitat for small fishes and shore birds that feed on these animals. A Black-crowned Night-heron for example was observed on the shore line using the pier structure for cover and feeding habitat. The substrate around the original pier started on the shore line as large boulder and cobble sized fragments of concrete armoring and became smaller to mostly cobble sized pieces with gravels interspersed between. Beyond a depth of approximately 3.0-ft the substrate could not be identified due to water turbidity. There were no signs of floating or anchored-submerged aquatic vegetation within visual range or evidenced in aerial imagery around the original pier location.

The substrate of Lake Pontchartrain largely consists of muck with hard and sandy substrates being a limiting factor for many benthic invertebrate species (Whitmore 2006). According to Ross *et al.* (2008) subadult and adult sturgeon predominantly utilize shallow waters with sandy substrates with a high potential prey abundance of benthic invertebrates. Areas not consistent with a thick muddy bottom in Lake Pontchartrain would be in areas with increased fluvial velocities such as river mouths and tidal inlets where sediment sorting is more likely to occur and fluvial morphological features such as shoals are more likely to be present. Based on aerial measurements from GoogleEarth (2011) the original pier site is located approximately 2,250-ft north of the 17th Street Canal outflow gates (Figure 2). With an operational outflow velocity of 4.2 knots that extends to the end of the breakwater wall (unpublished data) it is probable that the substrate in the outfall area is moderately different than surrounding areas outside of the outfall thalweg.

The upland areas surrounding the original pier location is consistent with a public park setting with predominantly ruderal habitat areas including ornamental plantings, cultivar escapees, paved parking areas, street lighting and paved roadways. There were no signs on the shoreline substrate, the pier pilings or utility poles of new or old migratory bird nests or evidence of accumulations of white-wash that would suggest this site in particular is being used extensively by large shore birds (e.g. egrets and herons) or other migratory bird species (e.g. Osprey and Bald Eagles).

Proposed Pier Location

The area around the proposed pier location includes parking areas, boat launch facility, an open grassy area of Breakwater Park and a breakwater wall that extends north into Lake Pontchartrain for approximately 160-feet and then westward for an additional 400-feet. Like the original pier location the upland habitat areas are either maintained as open recreational fields or are ruderal areas with little to no native vegetation. Approximately 300-feet to the west of the breakwater wall is a constructed drainage with an associated freshwater emergent wetland that runs from north to south

and was created to drain storm runoff from Breakwater Drive. The north end of the drainage appeared to have a small, approximately 6-inch culvert, that drained the ditch into Lake Pontchartrain but this area has been filled in with soil and the direct connection no longer exists.

The littoral area between the northern margin of Breakwater Park and Lake Pontchartrain is predominantly boulder sized recycled concrete armoring with course gravels and bivalve shells comprising the interstitial spaces. The larger substrate represented the predominant size class in the wetted littoral margin. No shore birds were seen utilizing this area for foraging or cover during the site visit. The larger concrete substrate also follows the outer lakeside margin of the breakwater wall. This substrate was covered with filamentous algae and did not have any signs of attached bivalve invertebrates. There were no signs of natant, anchored-submerged or emergent aquatic vegetation within visual range or evidenced in aerial imagery around the proposed pier location.

There are several oak trees (*Quercus nigra*) lining Breakwater Drive. These medium sized oak trees could be used for nesting and perching habitat for bird species ranging from a Red-shouldered Hawk sized bird and smaller. There was no evidence of nests or white-wash that would suggest perching or pecking habitat utilization in these trees.

Action Description

Land Operations

Land based operations will include the use of heavy equipment such as cranes to remove and install landside pier pilings, excavation equipment to remove soil to create a grade suitable for the concrete ramp portion of the proposed new pier, dump trucks to deliver sands and gravels and haul away debris and excavated soils, concrete mixing / delivery trucks, flat bed or low-boy tractor trailers to deliver heavy equipment to the site and pier structural components, front end loaders to move soils and debris from the site to dump trucks. Heavy equipment has the potential to leak and spill hydrocarbon based compounds (e.g. fuels, lubricants, brake and antifreeze fluids) during normal operations and require appropriate spill prevention and cleanup methods and materials. Heavy equipment will also produce noise above baseline conditions from running engines, earth moving actions, removing and delivering facility components and loading and unloading the heavy equipment from transport vehicles. Staging areas will need to be established for stockpiling refuse and debris related to pier removal and installation and materials needed to create the concrete ramp and wooden pier facility. Any earthen materials staged onsite have the potential to escape as fugitive dust or as sediment. Sediment generated during rain events has the potential to enter Lake Pontchartrain if sediment control is not implemented. Areas where ground disturbing activities such as excavated areas and areas that may be disturbed from heavy equipment also have the potential to release sediment to Lake Pontchartrain if adequate erosion mitigations are not implemented. Any pipe or conduit material staged onsite has the potential to be used by animals for temporary shelter, hiding habitat or curiosity. The larger the inside diameter of the pipe typically the larger the animal it can stow.

Water Operations

Project activities will include the use of powered and likely unpowered (barge) water vessels fitted with a crane to remove pier pilings and various structural attachments from the original pier facility and for the placement of new pier pilings at the proposed new pier location. Powered water vessels

have the potential in shallow waters to dislodge and disperse sediment from the lake bottom, pose a risk of propeller strikes, have the potential to spill hydrocarbon based liquids and will produce noise from the engine and active propeller.

Pier Piling Removal Process

The pier removal process may utilize any of three different methods: direct pull, vibratory extraction and / or clam shell depending on the condition of the pier pilings. The direct pull method utilizes a cable choker attached to a crane that pulls in a vertical direction to lift the piling directly out of the substrate and water column. The vibratory extraction method utilizes a large vibration hammer attached to the pier piling and lifted by a crane while the vibration hammer loosens the piling from the substrate. The clam shell method is used if a piling is broken and cannot be directly lifted from its footing. This method utilizes a clam shell bucket to excavate the substrate around the piling until it can be removed from the water. Any of these methods will remove the pilings from the water where they then can be disposed of properly. Removing the pilings from the substrate will release lakebed sediments into the water column which could cause a temporary disturbance to aquatic wildlife in the immediate area. The direct pull method would cause the least amount of impact. The vibratory extraction method will in addition to releasing sediment into the nearby waters will also emanate a sonic field that could disturb aquatic wildlife. Piling extraction with this method may take between 15 to 30 minutes per piling depending on substrate conditions and piling insertion depth. The original pier has approximately 70 pilings that will need to be removed. Lastly the clam shell bucket technique will likely be employed as several pilings have been broken near, at and below the water line. This method has the potential to dislodge and release the greatest amount of sediment into the water column.

Pier Piling Installation Process

The piling installation process may incorporate either an impact hammer or vibration head technique suspended from a crane which would be fitted to a water vessel or land based machinery. In either method the new piling is supported vertically while resting on the lakebed as either a piston-like hammer head or a vibratory hammer head drives the piling into the substrate at a depth sufficient to provide the necessary vertical support. Either method will release a minor amount of sediment from the lakebed into the water column which could disturb aquatic animals in the vicinity. Both the vibratory hammer head and the impact hammer method will emanate a sonic field that could disturb aquatic wildlife in the vicinity of the action. Approximately 69 pilings are scheduled for placement within the wetted area of Lake Pontchartrain. Ten pilings are scheduled to be installed on the bank leading to Lake Pontchartrain.

Federally Listed Species

Using USFWS's IPac portal, to determine the potential for federally listed species to be present in Jefferson and Orleans Parish, generated ten species that are either candidates for listing or are federally listed as threatened or endangered. Table 1 below accounts for the IPac database results in addition to the FWS's Critical Habitat Mapper results for federally listed species that also have designated critical habitat (USFWS 2012). Of the ten federally listed species identified five have the potential for occurring in or near the project area: Gulf sturgeon (*FT*), West Indian manatee (*FE*), green sea turtle (*FT*), Kemp's ridley sea turtle (*FE*) and the loggerhead sea turtle (*FT*).

The following species are under the purview of NMFS per their joint agreement with the USFWS for FEMA related ESA § 7 (a)(2) consultations.

Reptiles

Five species of sea turtles were identified as having the potential to occur in Jefferson and/or Orleans Parish (Table 1) (USFWS 2012). Based on personal communication with fisheries biologist Eric Hawk (NMFS SERO), stranding data from NMFS' Sea Turtle Stranding and Salvage Network (NOAA 2012) and a confirmed report of a Lake Pontchartrain shrimp trawler ensnaring a Kemp's ridley sea turtle (seaturtle.org 1999); the following Threatened and Endangered sea turtle species are uncommon yet should be assumed to be present in Lake Pontchartrain: green sea turtle, Kemp's ridley sea turtle and the loggerhead sea turtle.

Loggerhead Sea Turtle (Northwest Atlantic DPS) (*FT - Louisiana*)

On September 22, 2011, NMFS and USFWS issued a final rule changing the listing of loggerhead sea turtles from a single, threatened species to nine distinct population segments (DPSs) based on genetic information and known ranges. These DPSs were listed as either threatened or endangered (76 FR 58868). The Northwest Atlantic (NWA) DPS was listed as threatened under the ESA. The NWA DPS includes those areas approximately between the southern tip of Greenland to the northeast of Brazil and extends westward to include all of the Northern Atlantic to the continental seaboards (NMFS 2012). The NWA DPS was further divided into five recovery units. The Northern Gulf of Mexico Recovery Unit encompasses those areas from Franklin County, Florida through Texas (76 FR 58868).

The loggerhead sea turtle inhabits continental shelf and estuarine environments and occurs throughout the temperate and tropical regions of the Atlantic, Pacific, and Indian Oceans (Dodd 1988). In the western North Atlantic the loggerhead sea turtle predominantly nests from central North Carolina to southern tip of Florida with sporadic nesting sites along the shores of the Gulf of Mexico including Louisiana (Dodd 1988). While nesting has been known to occur on the barrier islands off the Louisiana coast this area is not known to be as frequently used as the Gulf coastlines of Alabama and west Florida (NMFS 2012, Dodd 1988).

As hatchlings loggerhead sea turtles enter the sea from their natal beaches and typically begin a pelagic lifestyle that lasts from 7 to 12 years. These pelagic juveniles will occupy oceanic gyres and other loop currents (i.e. Gulf of Mexico) and feed opportunistically on various floating and emergent prey items (Dodd 1988, NMFS 2012, Witherington 2002). In the western Atlantic, subadult developmental habitats may also include lagoons, estuaries, and the mouths of bays and rivers rich in food resources (Dodd 1988). Witzell (2002) suggests that some subadult loggerheads may not follow the gyre specific paradigm and may move between neritic and pelagic foraging habitat areas. Sub-adult and adult loggerheads are primarily found in coastal waters and prey on benthic invertebrates such as molluscs (e.g. snails, clams, squid) and decapods (e.g. crabs, shrimp) in hard bottom habitats (NMFS 2012).

There are several known threats to sea turtles in general. Natural threats include predation by terrestrial animals (e.g. raccoons, ghost crab, fire ants) during hatching and marine predators (e.g. predatory fishes) when they have reached the water. Sharks continue to be a chief predator of sea turtles well beyond the juvenile and sub-adult years. Some of the many anthropogenic threats include: ingestion of floating debris, entrapment in floating debris, pollution, collisions with boat propellers and various types of commercial fishing bycatch. Climate change may also be a contributing threat with increases in severity and frequency of storms, rising beach temperatures

during egg incubation and species range as determined by temperature.

Lake Pontchartrain has limited hard bottom substrate and comprised largely of a muddy (mucky) bottom comprised of small silt and clay particles (USGS 2002, Whitmore 2006). Lake Pontchartrain is used extensively for the commercial harvest of white and brown shrimp, blue crabs and until 1990 was used extensively for the harvest of *Rangia cuneata* clams (Abadie and Poirrier 2002). These abundant invertebrate species are within the wide range of prey items for the loggerhead sea turtle and may account for the presence of this species in Lake Pontchartrain.

Kemp's Ridley Sea Turtle (*FE*)
The Kemp's ridley sea turtle range extends from the southern coast of the Yucatan Peninsula north to include all of the Gulf of Mexico and all of the western Atlantic seaboard from south Florida to Nova Scotia (NMFS 2007). This species nests almost exclusively off the coast of Mexico at Rancho Nuevo between May and July in mass nesting events called arribadas (Shaver *et al.* 2005). Like the loggerhead sea turtle the neonate Kemp's ridley utilize the Loop Current in the Gulf of Mexico and may be taken to the Gulf Stream current by way of the Antilles Current. This pelagic developmental time may last up to two years at which time the Kemp's ridley becomes a neritic species (Collard and Ogren 1990). Adult Kemp's ridley's utilize hard and muddy bottom substrates in the shallow areas of the coastal Gulf of Mexico for foraging habitat. Prey items include crabs, fish, jellyfish, and various molluscs.

The inshore areas of Louisiana offer foraging habitat for Kemp's ridley with an abundance of benthic invertebrates found in various substrates. Lake Pontchartrain as mentioned has a muddy substrate and an abundance of invertebrate prey species. Recent stranding data for the Kemp's ridley for northern Gulf of Mexico identifies an occurrence in or near Lake Pontchartrain (NOAA 2012).

Possible threats are common with all other sea turtles.

Green Sea Turtle (*FT- Louisiana*)
The green turtle has a circumglobal distribution, occurring throughout tropical, subtropical waters and to a lesser extent temperate waters (NMFS and USFWS 2007). In U.S. Atlantic waters, green turtles are found in inshore and nearshore waters around the U.S. Virgin Islands, Puerto Rico, and continental United States from Texas to Massachusetts (NMFS and USFWS 1991). In the U.S., green turtles nest primarily along the central and southeast coast of Florida. The Florida breeding population is federally listed as *Endangered* (NMFS and USFWS 2007). As with other sea turtles the green sea turtle from hatching begins an oceanic lifestyle and may remain in various gyres and oceanic loop currents for 5 to 6 years before transitioning to a neritic lifestyle. Near shore and inshore habitats typically selected include those areas rich with sea grass and algae. Green sea turtles may remain in these protected areas for up to 6 years. Once established these foraging areas will be returned to after breeding migrations every few years (NMFS and USFWS 2007). Diet for the green sea turtle includes sea grasses, algae and invertebrates including jellyfish and ctenophores (Heithaus *et al.* 2002).

Lake Pontchartrain itself may not offer suitable foraging habitat for the green sea turtle but the several freshwater inlets of Lake Pontchartrain may offer foraging habitat with dense areas of submerged aquatic vegetation and algae. Northern Gulf of Mexico stranding data for loggerhead, Kemp's ridley and green sea turtles indicates a recent stranding in the first half of 2012 of a green sea turtle on the northeastern shore of Lake Pontchartrain near the Rigolets (NOAA 2012).

Possible threats are common with all other sea turtles.

Current literature does not address the salinity preferences of sea turtles but inferences can be made that brackish environments like that found in Lake Pontchartrain at least in an ephemeral sense support foraging behavior (Morreale and Standora 2005). With recent insights into sea turtle behavior much of the baseline knowledge regarding sea turtle migrations, site selection, feeding habits, juvenile *vs.* adult behavior is constantly being challenged and revised (Heithaus et al. 2002, Morreale and Standora 2005, McClellan and Read 2007).

Table 1 - Candidate, Threatened or Endangered Species Known to Occur in Jefferson and/or Orleans Parish

Common Name	Scientific Name	Federal Status†	Critical Habitat	Agency Jurisdiction (FEMA)	Habitat Requirements	Determination‡ / Rationale
Birds						
Piping Plover	*Charadrius melodus*	Threatened	Yes[3]	USFWS	Shore bird that breeds in the Great Lakes and northern plains regions and overwinters on the coastlines of the Gulf of Mexico. Preferred overwintering habitat is coastal sand dunes and algal matt areas.	No Effect / Suitable overwintering habitat (P = 0.1) for this species is not found in or near the proposed project area. Closest designated Critical Habitat is > 20 miles south of proposed project location.
Sprague's Pipit	*Anthus spragueii*	Candidate	No	USFWS	Grassland bird that overwinters during its non-breeding season from western Louisiana to Mexico and southwestern states.	No Effect / Project area is outside the suggested overwintering range of this species.
Fishes						
Gulf sturgeon	*Acipenser oxyrinchus desotoi*	Threatened	Yes	USFWS	Anadromous species that spends most of its life in marine habitats and spawns in riverine systems. Found in a variety of substrate areas based on age class of species.	NLAA / Project area is located in designated critical habitat. Project activities will not have a significant impact on critical habitat constituents. Effects may include temporary disturbance.
Pallid sturgeon	*Scaphirhynchus albus*	Endangered	No	USFWS	A freshwater obligate species. Prefers large, free-flowing turbid river bottoms. No information exists on preferred spawning habitat.	No Effect / No suitable habitat present.

Mammals						
West Indian manatee	*Trichechus manatus*	Endangered / Strategic Stock (MMPA)[4]	Yes[1]	USFWS	Found in marine, estuarine, and freshwater environments with a strong preference for warm and well vegetated waters.	NLAA / Lake Pontchartrain is a known transitional habitat for West Indian manatee.
Reptiles						
Green sea turtle	*Chelonia mydas*	Threatened	Yes[1]	NOAA-NMFS	Shallow waters (except when migrating) inside reefs, bays, and inlets. Attracted to lagoons and shoals with an abundance of marine grass and algae.	NLAA / Habitat availability is unknown but reported sightings have been made in Lake Pontchartrain.
Hawksbill sea turtle	*Eretmochelys imbricata*	Endangered	Yes[1]	NOAA-NMFS	Nesting habitat includes low and high energy beaches of tropical locations. Non-nesting habitat preferences include mangroves and areas of high energy coastline with rock outcrops, shoals and jetties.	No Effect / Suitable habitat does not occur in or near the proposed project area.
Kemp's ridley sea turtle	*Lepidochelys kempii*	Endangered	No	NOAA-NMFS	Nesting habitat includes sandy beaches typically between Mexico and Texas. Non-nesting habitat is primarily oceanic for juveniles and neritic for adults.	NLAA / Lake Pontchartrain may offer suitable foraging habitat.
Leatherback sea turtle	*Dermochelys coriacea*	Endangered	Yes[1]	NOAA-NMFS	Nesting habitat includes high energy warm water, beaches. Non-nesting habitat includes marine environments with a preference for pelagic areas.	No Effect / Suitable habitat does not occur in or near the proposed project area.

Loggerhead sea turtle* - NWA DPS	*Caretta caretta*	Threatened	No	NOAA-NMFS	Nesting habitat includes high energy warm water, beaches. Non-nesting includes: bays, sounds, and estuaries along the Atlantic and Gulf coasts and nearshore and oceanic habitats.	NLAA / Lake Pontchartrain may offer suitable foraging habitat.

† ESA status designations in Table 1are relevant to Louisiana only; ESA listing status may be different elsewhere.
‡ Endangered Species Act - Project Effect Determination Proposed by FEMA.
1 Critical habitat is not designated in Louisiana.
2 Critical habitat is designated in Louisiana, but does not occur within Jefferson or Orleans Parish.
3 Critical habitat may occur in Jefferson and/or Orleans Parish, but not within the proposed project area.
4 Marine Mammal Protection Act of 1972 (MMPA) Stock Assessment

- Table data acquired from: USFWS Jefferson and Orleans Parish TES species data accessed 5/8/2012 from USFWS IPaC Web Portal (http://ecos.fws.gov/ipac/); USFWS Critical Habitat by species data accessed 5/8/2012 from USFWS Critical Habitat Portal (http://criticalhabitat.fws.gov/crithab/); *NOAA Office of Protected Resources – Loggerhead Turtle Website, Accessed 5/08/2012 (http://www.nmfs.noaa.gov/pr/species/turtles/loggerhead.htm#habitat); Sea Turtle Critical Habitat, NOAA, OPR 5/08/2012

Federally Listed Species with "May Affect" Determinations - USFWS Jurisdiction

The following discussion aims to identify the federally protected species determined by FEMA as having the potential to be affected by the proposed project's activities, the conservation measures required by the applicant, as a condition of FEMA funding, to facilitate a NLAA determination and finally a request for the USFWS's concurrence for the effect determination for each species under its jurisdiction.

Loggerhead, Kemp's Ridley and Green Sea Turtles -

Potential for Project Related Effects

With the exception of the green sea turtle, the entirety of Lake Pontchartrain given its uniform muddy substrate and shallow depth could be utilized by foraging sea turtles. Not enough information exists to suggest that the green sea turtle would benefit from areas that did not contain sufficient aquatic vegetation and algae. Unlike the loggerhead and the Kemp's ridley the green does not have the morphological adaptations necessary to utilize bivalves as a prey source. However due to the limited information regarding the utilization and distribution of sea turtles in Lake Pontchartrain a conservative approach would be to assume ubiquitous presence in Lake Pontchartrain. Potential effects from project related activities may include boat strikes, sonic disturbance from vibratory head pile removal and driving, spilled hydrocarbon containing compounds and dislodged contaminants from lakebed sediments.

Conservation Measures

The following conservation measures for federally listed sea turtles will be employed by construction personnel as a contingency for FEMA funding:

1. All personnel related to the construction project will receive worker awareness training on sea turtles. This training will include at a minimum: the laws protecting federally listed sea

turtles (Endangered Species Act of 1973) as federally threatened or endangered species, a definition of "*take*" as it applies to the Endangered Species Act, the fines and possible imprisonment for *take* of a federally listed sea turtle, images of sea turtles as they are likely to be seen in Lake Pontchartrain, vessel work area restrictions and special operating conditions, monitoring requirements, procedures if a sea turtle is sighted within 100-yards of the active work zone and who to call and who will call if a sea turtle is sighted. All personnel will need to sign a worker awareness training *sign-in sheet* as a record of their attendance and training received. Any new workers that did not receive the training will need to be trained before working in or near construction areas that require *in-water* work.

2. One person per construction site will be made responsible by their crew lead (if not the lead) to call the phone numbers stated here in the event a sea turtle is sighted. NMFS Baton Rouge Field Office (504) 389-0508 and the LDWF, Natural Heritage Program (225) 765-2821.
3. All construction personnel will be responsible for monitoring water-related activities for the presence of sea turtles as part of their regular duties.
4. The following are special conditions that will be followed in the event a sea turtle is sighted within 100-yards of the project area:
    a. All construction personnel will have "*Stop Work"* authority if they see a sea turtle within 50-feet of a construction activity including moving vessels.
    b. All vessels will operate at no-wake/idle speeds within 100-yards of the work area.
    c. In-water sediment barriers or siltation barriers will need to be re-secured and monitored.
    d. Work will only resume without restriction when a sighted sea turtle is greater than 100-yards away from the project area.

Effect Determination

Based on the best currently available scientific information for the loggerhead, Kemp's ridley and green sea turtle's biological requirements and the required conservation measures identified above, FEMA is suggesting that any project related effects to these species will be discountable and is therefore requesting the NOAA Fisheries Service concurrence for a "*May Affect, but Not Likely to Adversely Affect*" determination for each of these species. No critical habitat for these species occurs in or near the project area and therefore will not be impacted by project related activities.

We would appreciate your review of the above determinations as they pertain to the Endangered Species Act of 1973. If you have any questions regarding this letter or need further clarification please call Mr. Kristiaan Stuart at (504) 762-2361 or email at kristiaan.stuart@assoaciates.dhs.gov.

Sincerely,

Tiffany Spann-Winfield
Deputy Environmental Liaison Officer
FEMA LRO, Region VI

CC:
USFWS, Louisiana Ecological Services Office
Corps of Engineers, New Orleans, LA
LDWF, Natural Heritage Program, Baton Rouge, LA

Attachments:
Site Visit Species List

REFERENCES

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CNO's Municipal Yacht Harbor Site Visit **June 08, 2012, 11:00 – 12:15pm**
Lake Pontchartrain and Shoreline
Conditions: Cloudy, light rain, 82°F, Winds S-SW 8 – 11 mph

Table 1. Species Observed List

Common Name	Scientific Name	Status	Observation Type
Fish			
Longnose gar (juvenile)	*Lepisosteus osseus*		Visual
Spotted seatrout (juvenile)	*Cynoscion nebulosus*		Visual
Birds			
American Crow	*Corvus brachyrhynchos*		Visual
Killdeer	*Charadrius vociferus*		Vocalization
Northern Mockingbird	*Mimus polyglottos*		Visual
Mourning Dove	*Zenaida macroura*		Visual
Purple Martin	*Progne subis*		Visual
Bachman's Sparrow	*Peucaea aestivalis*		Visual
Yellow-crowned Night-heron	*Nyctanassa violacea*		Visual
Mammals			
North American river otter	*Lontra canadensis*		Tracks
Plants			
Bermuda grass	*Cynodon dactylon*	FACU	Visual
Bulltongue arrowhead	*Sagittaria lancifolia*	OBL	Visual
Chinese tallow tree	*Triadica sebifera*	Invasive – Noxious[1]	Visual
Dock	*Rumex sp.*	FACW	Visual
Duckweed	*Lemna sp.*	OBL	Visual
Eastern baccharis	*Baccharis halimifolia*	FAC	Visual
Eastern elderberry	*Sambucus canadensis*	NL	Visual
Lambs quarter	*Chenopodium album*	FACU	Visual
Lotus	*Lotus sp.*	UPL	Visual
Morning glory	*Convolvulus sp.*	UPL	Visual
Mulberry	*Morus sp.*	FACU	Visual
Oleander	*Nerium oleander*	NL	Visual
Palmetto	*Sabal palmetto*	FAC	Visual
Rush	*Juncus sp.*	FACW - OBL	Visual
Spurge	*Euphorbia sp.*	FAC - FACU	Visual
Water oak	*Quercus nigra*	FAC	Visual

Wetland Indicator Species Designations for Region LRR O:

OBL	Obligate Wetland	Almost always is a hydrophyte, rarely in uplands
FACW	Facultative Wetland	Usually is a hydrophyte but occasionally found in uplands
FAC	Facultative	Commonly occurs as either a hydrophyte or non-hydrophyte
FACU	Facultative Upland	Occasionally is a hydrophyte but usually occurs in uplands
UPL	Obligate Upland	Rarely is a hydrophyte, almost always in uplands
NL	Not Listed	

1 – Listed by US Dept of Agriculture as a Noxious Weed Species in Louisiana

U.S. Department of Homeland Security
Federal Emergency Management Agency
Louisiana Recovery Office
#1 Seine Court, Room 1065
New Orleans, Louisiana 70114
(504) 762-2000 office
(504) 762-2410 fax

June 26, 2012

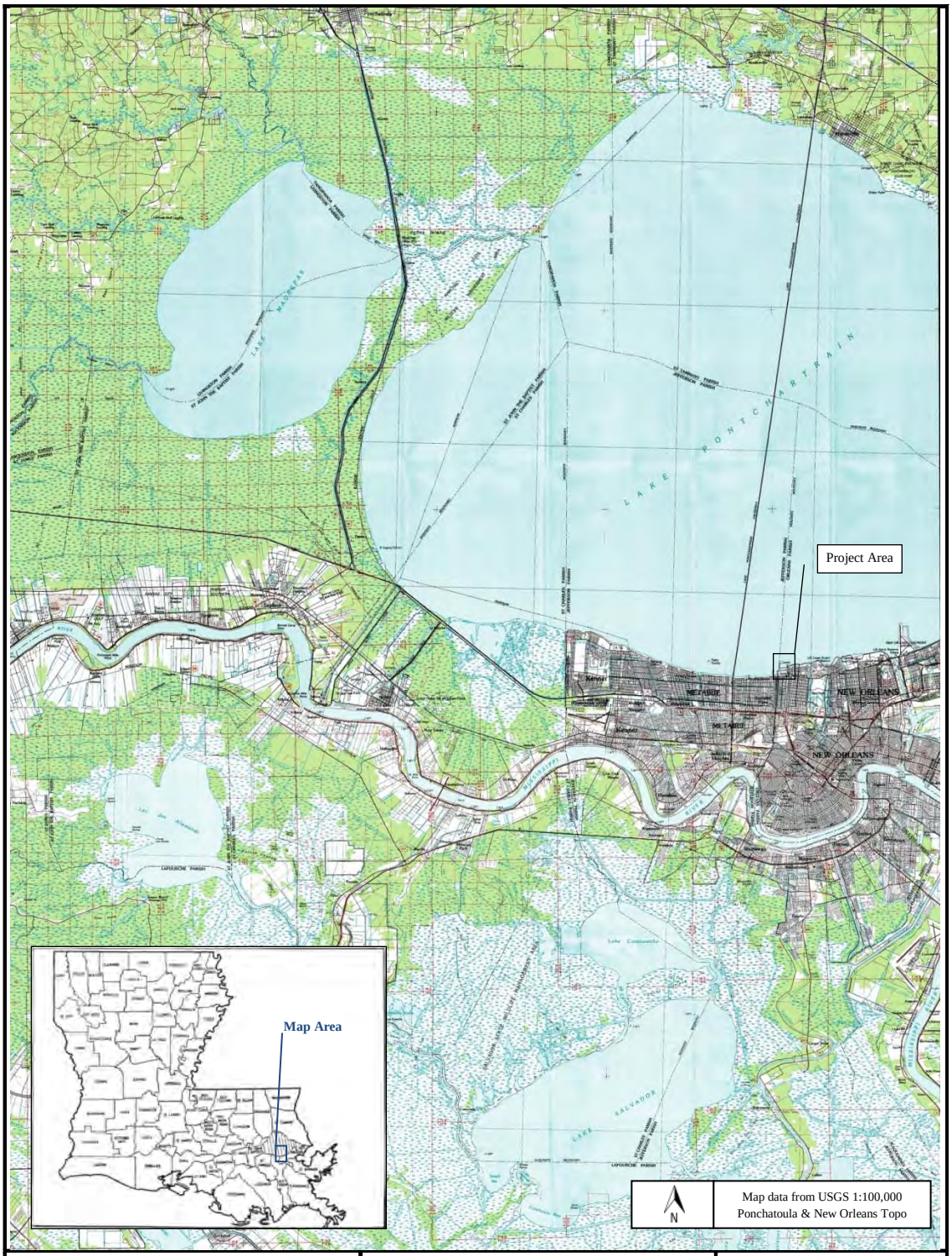
Mr. Brad Rieck
Deputy Field Supervisor
Louisiana Ecological Services Office
United States Fish and Wildlife Service (DOI)
646 Cajundome Blvd., Suite 400
Lafayette, Louisiana 70506

SUBJECT: Informal Consultation, Request for Endangered Species Act Determination
Concurrence for: West Indian manatee, Gulf sturgeon and its critical habitat
City of New Orleans (applicant)
Municipal Yacht Harbor Fishing Pier Removal and Replacement (project)
FEMA-DR-1603, PW 11698, AIDB 1776

Dear Mr. Rieck:

Thank you for the timely response of your June 05, 2012 comment letter, in accordance with the consultation provisions of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), detailing the federally listed species and critical habitats known to occur or may have the potential to occur within the proposed project area (Figure 1) (USFWS 2012a). Under Section 7 (a)(2) of the Endangered Species Act, FEMA is requesting the US Fish and Wildlife Service's (Service) concurrence for a "*May Affect, but Not Likely to Adversely Affect*" (NLAA) determination for West Indian manatee and Gulf sturgeon and its Critical Habitat given the behavioral attributes and biological needs of each species, existing habitat conditions within the action area (Figure 2), the implementation of project conservation recommendations outlined in your letter and additional mitigation requirements as detailed below. FEMA will initiate informal consultation with NOAA-NMFS regarding federally listed species under its purview separately.

A site visit was conducted by FEMA's New Orleans LRO, Environmental Historic Preservation Department on June 08, 2012 at the City of New Orleans' Municipal Yacht Harbor. The site visit was conducted by Adam Borden (Lead Environmental Protection Specialist) and Kristiaan Stuart (Environmental Protection Specialist). A reconnaissance level survey was conducted during the site visit to assess available habitat for federally listed species, the presence or absence of sensitive habitat areas including wetlands and determine the proposed project layout plans relative to any sensitive species or habitat areas. Based on our site visit we concur with the federally listed species and critical habitat under USFWS jurisdiction that your letter identified as having the potential to occur within the project's action area, namely West Indian manatee and Gulf sturgeon.



FEMA – 1603-DR-LA **AIDB #1776**	City of New Orleans Municipal Yacht Harbor Pier Replacement	**Figure 1** Project Vicinity

FEMA – 1603-DR-LA **AIDB #1776**	City of New Orleans Municipal Yacht Harbor Pier Replacement	**Figure 2** Project Area – Aerial View

Site Conditions

Site conditions were assessed during the reconnaissance survey on June 08, 2012. Meteorological conditions that day included low clouds with light rain, air temperature at 82°F, and medium winds S-SW at 8 – 11 mph. A list of all species encountered was taken during the site visit (see Attachments).

Original Pier Location

The first location assessed was the original pier location where remnants (mostly vertical piles) of the pier still remain. The pier piles were submerged in water ranging in depth of approximately 6-inches to several feet. The submerged portions of the piles were covered in filamentous algae and did not appear to have any bivalves attached to them. As with most piers it is likely these piles offer anchoring and feeding habitat for invertebrates and feeding habitat for small fishes and shore birds that feed on these animals. A Black-crowned Night-heron for example was observed on the shore line using the pier structure for cover and feeding habitat. The substrate around the original pier started on the shore line as large boulder and cobble sized fragments of concrete armoring and became smaller to mostly cobble sized pieces with gravels interspersed between. Beyond a depth of approximately 3.0-ft the substrate could not be identified due to water turbidity. There were no signs of floating or anchored-submerged aquatic vegetation within visual range or evidenced in aerial imagery around the original pier location.

The substrate of Lake Pontchartrain largely consists of muck with hard and sandy substrates being a limiting factor for many benthic invertebrate species (Whitmore 2006). According to Ross et al. (2008) subadult and adult sturgeon predominantly utilize shallow waters with sandy substrates with a high potential prey abundance of benthic invertebrates. Areas not consistent with a thick muddy bottom in Lake Pontchartrain would be in areas with increased fluvial velocities such as river mouths and tidal inlets where sediment sorting is more likely to occur and fluvial morphological features such as shoals are more likely to be present. Based on aerial measurements from GoogleEarth (2011) the original pier site is located approximately 2,250-ft north of the 17th Street Canal outflow gates (Figure 2). With an operational outflow velocity of 4.2 knots that extends to the end of the breakwater wall (unpublished data) it is probable that the substrate in the outfall area is moderately different than surrounding areas outside of the outfall thalweg.

The upland areas surrounding the original pier location is consistent with a public park setting with predominantly ruderal habitat areas including ornamental plantings, cultivar escapees, paved parking areas, street lighting and paved roadways. There were no signs on the shoreline substrate, the pier pilings or utility poles of new or old migratory bird nests or evidence of accumulations of white-wash that would suggest this site in particular is being used extensively by large shore birds (e.g. egrets and herons) or other migratory bird species (e.g. Osprey and Bald Eagles).

Proposed Pier Location

The area around the proposed pier location includes parking areas, boat launch facility, an open grassy area of Breakwater Park and a breakwater wall that extends north into Lake Pontchartrain for approximately 160-feet and then westward for an additional 400-feet. Like the original pier location the upland habitat areas are either maintained as open recreational fields or are ruderal areas with little to no native vegetation. Approximately 300-feet to the west of the breakwater wall is a constructed drainage with an associated freshwater emergent wetland that runs from north to south

and was created to drain storm runoff from Breakwater Drive. The north end of the drainage appeared to have a small, approximately 6-inch culvert, that drained the ditch into Lake Pontchartrain but this area has been filled in with soil and the direct connection no longer exists.

The littoral area between the northern margin of Breakwater Park and Lake Pontchartrain is predominantly boulder sized recycled concrete armoring with course gravels and bivalve shells comprising the interstitial spaces. The larger substrate represented the predominant size class in the wetted littoral margin. No shore birds were seen utilizing this area for foraging or cover during the site visit. The larger concrete substrate also follows the outer lakeside margin of the breakwater wall. This substrate was covered with filamentous algae and did not have any signs of attached bivalve invertebrates. There were no signs of natant, anchored-submerged or emergent aquatic vegetation within visual range or evidenced in aerial imagery around the proposed pier location.

There are several oak trees (*Quercus nigra*) lining Breakwater Drive. These medium sized oak trees could be used for nesting and perching habitat for bird species ranging from a Red-shouldered Hawk sized bird and smaller. There was no evidence of nests or white-wash that would suggest perching or pecking habitat utilization in these trees.

Action Description

Land Operations

Land based operations will include the use of heavy equipment such as cranes to remove and install landside pier pilings, excavation equipment to remove soil to create a grade suitable for the concrete ramp portion of the proposed new pier, dump trucks to deliver sands and gravels and haul away debris and excavated soils, concrete mixing / delivery trucks, flat bed or low-boy tractor trailers to deliver heavy equipment to the site and pier structural components, front end loaders to move soils and debris from the site to dump trucks. Heavy equipment has the potential to leak and spill hydrocarbon based compounds (e.g. fuels, lubricants, brake and antifreeze fluids) during normal operations and require appropriate spill prevention and cleanup methods and materials. Heavy equipment will also produce noise above baseline conditions from running engines, earth moving actions, removing and delivering facility components and loading and unloading the heavy equipment from transport vehicles. Staging areas will need to be established for stockpiling refuse and debris related to pier removal and installation and materials needed to create the concrete ramp and wooden pier facility. Any earthen materials staged onsite have the potential to escape as fugitive dust or as sediment. Sediment generated during rain events has the potential to enter Lake Pontchartrain if sediment control is not implemented. Areas where ground disturbing activities such as excavated areas and areas that may be disturbed from heavy equipment also have the potential to release sediment to Lake Pontchartrain if adequate erosion mitigations are not implemented. Any pipe or conduit material staged onsite has the potential to be used by animals for temporary shelter, hiding habitat or curiosity. The larger the inside diameter of the pipe typically the larger the animal it can stow.

Water Operations

Project activities will include the use of powered and likely unpowered (barge) water vessels fitted with a crane to remove pier pilings and various structural attachments from the original pier facility and for the placement of new pier pilings at the proposed new pier location. Powered water vessels

have the potential in shallow waters to dislodge and disperse sediment from the lake bottom, pose a risk of propeller strikes, have the potential to spill hydrocarbon based liquids and will produce noise from the engine and active propeller.

Pier Piling Removal Process

The pier removal process may utilize any of three different methods: direct pull, vibratory extraction and / or clam shell depending on the condition of the pier pilings. The direct pull method utilizes a cable choker attached to a crane that pulls in a vertical direction to lift the piling directly out of the substrate and water column. The vibratory extraction method utilizes a large vibration hammer attached to the pier piling and lifted by a crane while the vibration hammer loosens the piling from the substrate. The clam shell method is used if a piling is broken and cannot be directly lifted from its footing. This method utilizes a clam shell bucket to excavate the substrate around the piling until it can be removed from the water. Any of these methods will remove the pilings from the water where they then can be disposed of properly. Removing the pilings from the substrate will release lakebed sediments into the water column which could cause a temporary disturbance to aquatic wildlife in the immediate area. The direct pull method would cause the least amount of impact. The vibratory extraction method will in addition to releasing sediment into the nearby waters will also emanate a sonic field that could disturb aquatic wildlife. Piling extraction with this method may take between 15 to 30 minutes per piling depending on substrate conditions and piling insertion depth. The original pier has approximately 70 pilings that will need to be removed. Lastly the clam shell bucket technique will likely be employed as several pilings have been broken near, at and below the water line. This method has the potential to dislodge and release the greatest amount of sediment into the water column.

Pier Piling Installation Process

The piling installation process may incorporate either an impact hammer or vibration head technique suspended from a crane which would be fitted to a water vessel or land based machinery. In either method the new piling is supported vertically while resting on the lakebed as either a piston-like hammer head or a vibratory hammer head drives the piling into the substrate at a depth sufficient to provide the necessary vertical support. Either method will release a minor amount of sediment from the lakebed into the water column which could disturb aquatic animals in the vicinity. Both the vibratory hammer head and the impact hammer method will emanate a sonic field that could disturb aquatic wildlife in the vicinity of the action. Approximately 69 pilings are scheduled for placement within the wetted area of Lake Pontchartrain. Ten pilings are scheduled to be installed on the bank leading to Lake Pontchartrain.

Federally Listed Species

Using FWS's IPac portal, to determine the potential for federally listed species to be present in Jefferson and Orleans Parish, generated ten species that are either candidates for listing or are federally listed as threatened or endangered (USFWS 2012b). Table 1 below accounts for the IPac database results in addition to the FWS's Critical Habitat Mapper results for federally listed species that also have designated critical habitat (USFWS 2012b, USFWS 2012c). Of the ten federally listed species identified five have the potential for occurring in or near the project area: Gulf sturgeon (*FT*), West Indian manatee (*FE*), green sea turtle (*FT*), Kemp's Ridley sea turtle (*FE*) and the loggerhead sea turtle (*FT*).

Birds

Piping Plover

Piping Plover is a shore bird and is federally listed as a threatened species. Ideal wintering habitat for the piping plover on the Gulf of Mexico coast would contain large sand flats or sand-mud flats adjacent to a tidal pass or tidal inlet (Haig 1985, Nicholls 1989). A thin layer of mud covering the sand seems to attract plovers, due to possible food or refuge association (Nicholls 1989). Nicholls observed that barrier beaches with over wash areas or sections of old marshes also attract plovers. A gulf-facing beach having a very low gradient, thus an increased intertidal zone, offers an almost equally attractive area (Haig 1985). Also piping plovers will inhabit spoil islands on the Gulf Intracoastal Waterway on both Atlantic and Gulf Coasts. Birds are frequently associated with bays, lagoons and inlets. Winter 2001 census observations were in the following habitat type: mudflats (36.3%), sandy beaches (33.2%), sand/salt flats (23.1%) algal mats (2.8%), oyster reefs (1.0%) and gravel shores (0.1%) (Elliott-Smith and Haig 2004). Critical habitat for this species has been designated along the shoreline margins of several gulf coast states including Louisiana (USFWS 2012c). The closest area of critical habitat is in Plaquemines Parish approximately 20 miles south of the project area. While the project area is within this species range there is little to no available habitat present in the project area for Piping Plover.

Sprague's Pipit

Sprague's Pipit is a grassland bird species and is federally listed as a Candidate species. Sprague's pipit may occur in the vicinity of the proposed project but insufficient data regarding its overwintering range is available to be certain (Table 1). Current data does suggest its non-breeding; overwintering range extends from central Louisiana westward to Texas, south to Mexico and northward including the southern regions of New Mexico and Arizona (Robbins and Dale 1999). No suitable overwintering habitat is available in or near the project area.

Fishes

Gulf Sturgeon

The Gulf sturgeon is listed as a federally Threatened fish species that has federally designated critical habitat within the action area (USFWS 2012c). This fish is a large anadromous species that lives most of its life in estuarine or marine environments. It is known to occur in rivers, estuaries and nearshore Gulf waters from Tampa, Florida westward to Lake Pontchartrain, Louisiana (NOAA 2012 and NMFS 2007). Adult Gulf sturgeons migrate during the spring to cool, spring-fed, riverine areas to spawn. These riverine areas in the Pontchartrain basin, currently or historically, include the Tchefuncte River, Tickfaw River, Tangipahoa River, Amite River and the Pearl River including the Middle Pearl River, Bogue Chitto, East Pearl River and West Pearl River segments (USFWS and Gulf States Marine Fisheries Commission 1995). Juvenile Gulf sturgeon may remain in these riverine systems for up to three years before migrating to estuarine and/or marine waters as adults. The adults initiate movement up to the rivers between February and April and migrate back out to the Gulf of Mexico between September and November (NOAA 2012).

The proposed project is located towards the western limit of the designated Gulf sturgeon critical habitat area - Unit 8. This critical habitat unit extends eastward from the Lake Pontchartrain Causeway (a twin highway bridge supported by pilings extending 33.6 km (20.9 mi) from the north to the south) encompassing the north and south margins of Lake Pontchartrain to the Mississippi

Sound. This critical habitat area provides juvenile, subadult and adult feeding, resting and passage habitat for Gulf sturgeon from the Pascagoula and Pearl Rivers subpopulations. Lake Pontchartrain in particular provides essential winter habitat for the Pearl River Gulf sturgeon subpopulation (USFWS & NMFS 2003). The critical habitat constituents for the Gulf sturgeon identified by USFWS and NMFS (2003) include:

1. *Abundant prey items within riverine habitats for larval and juvenile life stages, and within estuarine and marine habitats and substrates for juvenile, subadult, and adult life stages;*
2. *Riverine spawning sites with substrates suitable for egg deposition and development, such as limestone outcrops and cut limestone banks, bedrock, large gravel or cobble beds, marl, soapstone or hard clay;*
3. *Riverine aggregation areas, also referred to as resting, holding, and staging areas, used by adult, subadult, and/or juveniles, generally, but not always, located in holes below normal riverbed, depths, believed necessary for minimizing energy expenditures during fresh water residency and possibly for osmoregulatory functions;*
4. *A flow regime (i.e. the magnitude, frequency, duration, seasonality, and rate-of-change of fresh water discharge over time) necessary for normal behavior, growth, and survival of all life stages in the riverine environment, including migration, breeding site selection, courtship, egg fertilization, resting, and staging; and necessary for maintaining spawning sites in suitable condition for egg attachment, egg sheltering, resting, and larvae staging;*
5. *Water quality, including temperature, salinity, pH, hardness, turbidity, oxygen content, and other chemical characteristics, necessary for normal behavior, growth, and viability of all life stages;*
6. *Sediment quality, including texture and other chemical characteristics, necessary for normal behavior, growth, and viability of all life stages; and*
7. *Safe and unobstructed migratory pathways necessary for passage within and between riverine, estuarine, and marine habitats (e.g. a river unobstructed by any permanent structure, or a dammed river that still allows for passage).*

Of the critical habitat constituents listed above, list items 5 - 7 are pertinent to the proposed project as it relates to Gulf sturgeon critical habitat.

Pallid Sturgeon

The pallid sturgeon is federally listed as an Endangered fish species and currently does not have federally designated critical habitat. This species inhabits the bottoms of large river systems including the Missouri and Mississippi Rivers from Montana to Louisiana and the Atchafalaya River. In the Mississippi River pallid sturgeon tend to select main channel habitats. Food habits of this species range from aquatic insects to fish depending on life stage. The species can be long lived with females reaching sexual maturity later than male. Spawning appears to occur between June and August, and females may not spawn each year (USFWS 2007a). The pallid sturgeon being known to only occupy the Mississippi and Atchafalaya River systems in Louisiana is outside of the potential for occurring in Lake Pontchartrain with the exception of stochastic flooding events necessitating the release of waters through Bonnet Carré Spillway from the Mississippi River into Lake Pontchartrain. There is no data to suggest that pallid sturgeons would survive in brackish, estuarine waters such as Lake Pontchartrain as they are known to be an obligate freshwater species (Cech and Doroshov 2004).

Mammals

The West Indian manatee and its subspecies (Florida and Antillean) are federally listed under the Endangered Species Act of 1973 as Endangered and does have federally designated critical habitat that is located in the southwestern and eastern margins of Florida (USFWS 2012c). The Florida subspecies (*T. m. latirostris*) is known to occur in Lakes Maurepas and Pontchartrain during the summer months, typically June through September, and various waterways within the Lake Pontchartrain Basin including the Amite, Blind, Tchefuncte, and Tickfaw Rivers. The known and historical range of the Florida subspecies extends from Norfolk, Virginia south and westward along the Atlantic seaboard to Beaumont, Texas. In warmer months this subspecies has been observed as far north as Massachusetts (USFWS 2007b). Sightings in Louisiana, representing the western limits of their range in the Gulf of Mexico, are regarded as rare but increasing. The West Indian manatee has been known to occupy nearshore marine environments, inshore estuaries and salt marshes and warm freshwater environments including: coastal tidal rivers and streams, mangrove swamps, freshwater springs and backwater bayou areas (USFWS 2007b). Foraging habitat in coastal and riverine habitats includes vegetated bottoms and shallow grass beds, with ready access to deep channels. In cooler months manatees will seek warmer waters including anthropogenic induced sources (USFWS 2007b).

Reptiles

Five species of sea turtles were identified as having the potential to occur in Jefferson and/or Orleans Parish (Table 1) (USFWS 2012b). Based on personal communication with fisheries biologist Eric Hawk (NMFS-SERO), stranding data from NMFS' Sea Turtle Stranding and Salvage Network (NMFS 2012) and a confirmed report of a Lake Pontchartrain shrimp trawler ensnaring a Kemp's Ridley sea turtle (seaturtle.org 1999); the following Threatened and Endangered sea turtle species are uncommon yet should be assumed to be present in Lake Pontchartrain: green sea turtle, Kemp's Ridley sea turtle and the loggerhead sea turtle. Lake Pontchartrain may offer foraging habitat for the Kemp's Ridley and loggerhead sea turtles as shrimp is one of their known prey items and is abundant in Lake Pontchartrain.

Table 1 - Candidate, Threatened or Endangered Species Known to Occur in Jefferson and/or Orleans Parish

Common Name	Scientific Name	Federal Status†	Critical Habitat	Agency Jurisdiction (FEMA)	Habitat Requirements	Determination‡ / Rationale
Birds						
Piping Plover	*Charadrius melodus*	Threatened	Yes[3]	USFWS	Shore bird that breeds in the Great Lakes and northern plains regions and overwinters on the coastlines of the Gulf of Mexico. Preferred overwintering habitat is coastal sand dunes and algal matt areas.	No Effect / Suitable overwintering habitat (P = 0.1) for this species is not found in or near the proposed project area. Closest designated Critical Habitat is > 20 miles south of proposed project location.
Sprague's Pipit	*Anthus spragueii*	Candidate	No	USFWS	Grassland bird that overwinters during its non-breeding season from western Louisiana to Mexico and southwestern states.	No Effect / Project area is outside the suggested overwintering range of this species.
Fishes						
Gulf sturgeon	*Acipenser oxyrinchus desotoi*	Threatened	Yes	USFWS	Anadromous species that spends most of its life in marine habitats and spawns in riverine systems. Found in a variety of substrate areas based on age class of species.	NLAA / Project area is located in designated critical habitat. Project activities will not have a significant impact on critical habitat constituents. Effects may include temporary disturbance.
Pallid sturgeon	*Scaphirhynchus albus*	Endangered	No	USFWS	A freshwater obligate species. Prefers large, free-flowing turbid river bottoms. No information exists on preferred spawning habitat.	No Effect / No suitable habitat present.

Mammals						
West Indian manatee	*Trichechus manatus*	Endangered / Strategic Stock (MMPA)[4]	Yes[1]	USFWS	Found in marine, estuarine, and freshwater environments with a strong preference for warm and well vegetated waters.	NLAA / Lake Pontchartrain is a known transitional habitat for West Indian manatee.
Reptiles						
Green sea turtle	*Chelonia mydas*	Threatened	Yes[1]	NOAA-NMFS	Shallow waters (except when migrating) inside reefs, bays, and inlets. Attracted to lagoons and shoals with an abundance of marine grass and algae.	NLAA / Habitat availability is unknown but reported sightings have been made in Lake Pontchartrain.
Hawksbill sea turtle	*Eretmochelys imbricata*	Endangered	Yes[1]	NOAA-NMFS	Nesting habitat includes low and high energy beaches of tropical locations. Non-nesting habitat preferences include mangroves and areas of high energy coastline with rock outcrops, shoals and jetties.	No Effect / Suitable habitat does not occur in or near the proposed project area.
Kemp's Ridley sea turtle	*Lepidochelys kempii*	Endangered	No	NOAA-NMFS	Nesting habitat includes sandy beaches typically between Mexico and Texas. Non-nesting habitat is primarily oceanic.	NLAA / Lake Pontchartrain may offer suitable foraging habitat.
Leatherback sea turtle	*Dermochelys coriacea*	Endangered	Yes[1]	NOAA-NMFS	Nesting habitat includes high energy warm water, beaches. Non-nesting habitat includes marine environments with a preference for pelagic areas.	No Effect / Suitable habitat does not occur in or near the proposed project area.

Loggerhead sea turtle*	*Caretta caretta*	Threatened	No	NOAA-NMFS	Nesting habitat includes high energy warm water, beaches. Non-nesting includes: bays, sounds, and estuaries along the Atlantic and Gulf coasts and nearshore and oceanic habitats.	NLAA / Lake Pontchartrain may offer suitable foraging habitat.

† ESA status designations in Table 1are relevant to Louisiana only; ESA listing status may be different elsewhere.
‡ Endangered Species Act - Project Effect Determination Proposed by FEMA.
1 Critical habitat is not designated in Louisiana.
2 Critical habitat is designated in Louisiana, but does not occur within Jefferson or Orleans Parish.
3 Critical habitat may occur in Jefferson and/or Orleans Parish, but not within the proposed project area.
4 Marine Mammal Protection Act of 1972 (MMPA) Stock Assessment

- Table data acquired from: USFWS Jefferson and Orleans Parish TES species data accessed 5/8/2012 from USFWS IPaC Web Portal (http://ecos.fws.gov/ipac/); USFWS Critical Habitat by species data accessed 5/8/2012 from USFWS Critical Habitat Portal (http://criticalhabitat.fws.gov/crithab/); *NOAA Office of Protected Fisheries – Loggerhead Turtle Website, Accessed 5/08/2012 (http://www.nmfs.noaa.gov/pr/species/turtles/loggerhead.htm#habitat)

Federally Listed Species with "May Affect" Determinations - USFWS Jurisdiction

The following discussion aims to identify the federally protected species determined by FEMA as having the potential to be affected by the proposed project's activities, the conservation measures required by the applicant, as a condition of FEMA funding, to facilitate a NLAA determination and finally a request for the USFWS's concurrence for the effect determination for each species under its jurisdiction.

West Indian Manatee

Potential for Project Related Effects

The existing habitat in and around the action area does not contain the aquatic vegetation component necessary for suitable foraging habitat for the West Indian manatee. However, this species is known to occur in Lake Pontchartrain during its summer migration (June through September) (USFWS 2012a) and may be more inclined to utilize near shore areas in the late spring to the early summer months where water temperatures may be higher (Kinnaird 1983). Sources of anthropogenic generated warm water sources have been known to be utilized by manatees in Florida (USFWS 2001). Outflow from the 17th Street Canal may deliver warmer waters to Lake Pontchartrain than the temperature of the lake itself which may be desirable to the West Indian manatee. Manatees are also known to be curious animals and have been known to approach swimmers and water craft. This type of behavior could draw it in too close to the action area and put a manatee at risk. While the likelihood of project personnel coming within close range of a West Indian manatee in Lake Pontchartrain are rare the possibility does exist and can become increasingly more likely based on the season during which time construction will take place, the environmental attributes of the action area as stated and the known behavior of manatees in general.

Conservation Measures

The following conservation measures for West Indian manatee will be employed by construction personnel as a contingency for FEMA funding:

1. All personnel related to the construction project will receive worker awareness training on the West Indian manatee. This training will include at a minimum: the laws protecting the West Indian manatee (Marine Mammal Protection Act, 1972 and the Endangered Species Act of 1973) as a federally endangered species, a definition of "*take*" as it applies to the Endangered Species Act, the fines and possible imprisonment for *take* of a West Indian manatee, images of the West Indian manatee as it is likely to be seen in Lake Pontchartrain, vessel work area restrictions and special operating conditions, monitoring requirements, procedures if a manatee is sighted within 100-yards of the active work zone and who to call and who will call if a manatee is sighted. All personnel will need to sign a worker awareness training *sign-in sheet* as a record of their attendance and training received. Any new workers that did not receive the training will need to be trained before working in or near construction areas that require *in-water* work.
2. Informational signs will be posted in visible areas in any construction area where in-water work occurs including all project related vessels. The signs will have an image of a manatee as it is likely to be seen in Lake Pontchartrain, the federal listing status of the manatee, possible punishment for *take* of a manatee and phone numbers to immediately call in the event a manatee is seen: USFWS's Lafayette Field Office (337) 291-3100 and the LDWF, Natural Heritage Program (225) 765-2821. These informational signs will be weather proofed (laminated) and large enough so that they can be read from a distance of 20-feet. Signs will be posted prior to and for the duration of the construction project.
3. One person per construction site will be made responsible by their crew lead (if not the lead) to call the phone numbers stated above in the event a manatee is sighted.
4. All construction personnel will be responsible for monitoring water-related activities for the presence of manatees as part of their regular duties.
5. The following are special conditions that will be followed in the event a manatee is sighted within 100-yards of the project area:
    a. All construction personnel will have "*Stop Work"* authority if they see a manatee within 50-feet of a construction activity including moving vessels.
    b. All vessels will operate at no-wake/idle speeds within 100-yards of the work area.
    c. In-water sediment barriers or siltation barriers will need to be re-secured and monitored.
    d. Work will only resume without restriction when a sighted manatee is greater than 100-yards away from the project area.

Effect Determination

If construction activities occur within the known seasonal window that manatees may be present in Lake Pontchartrain (June through September) and the conservation measures listed above are implemented FEMA suggests that effects of project related activities are discountable and is therefore requesting concurrence from the Service for a "*May Affect, but Not Likely to Adversely*

Affect" determination for the West Indian manatee. If however construction activities occur during the year when manatees are not present in Lake Pontchartrain (October through May) FEMA would then make a "*No Effect*" determination.

Gulf Sturgeon

Potential for Project Related Effects

Unmitigated actions that may lead to direct effects to the Gulf sturgeon include: increased turbidity and acoustic related disturbances from pile removal and installation actions, disturbance from vessels in shallow waters that are likely to proximally and temporarily increase turbidity from dislodging bottom sediments during normal operations, a potential to decrease localized dissolved oxygen as a result of sediment disturbance and potential harm from spilled hydrocarbon based fuels and lubricants. The entirety of Lake Pontchartrain represents a shallow aquatic habitat with a maximum depth of 5 meters and therefore project actions would not restrict the movement of Gulf sturgeon which prefers shallow depths and could at will avoid the action area (Whitmore 2006, USGS 2002 & Ross *et al.* 2008).Therefore potential effects as a result of these actions would be limited to temporary disturbances where a Gulf sturgeon in the vicinity of the project could avoid suspended sediments and acoustic disturbances derived from project activities.

It is unlikely that prey resources (predominantly benthic invertebrates) would be disturbed as a result of the proposed project actions based on existing substrate and prey habitat suitability (Ross *et al.* 2008 & Whitmore 2006). The placement of the new pier would not represent a temporary or long term obstruction for sturgeon passage to or from freshwater spawning areas.

Conservation Measures

The following conservation measures for Gulf sturgeon will be employed by construction personnel as a contingency for FEMA funding:

1. All personnel related to the construction project will receive worker awareness training on the Gulf sturgeon. This training will include at a minimum: the laws protecting the Gulf sturgeon (Endangered Species Act of 1973) as a federally endangered species, a definition of "*take*" as it applies to the Endangered Species Act § 3.19, the fines and possible imprisonment for *take* of a Gulf sturgeon, images of the Gulf sturgeon as it is likely to be seen in Lake Pontchartrain. All personnel will need to sign a worker awareness training *sign-in sheet* as a record of their attendance and training received. Any new workers that did not receive the training will need to be trained before working in or near construction areas.
2. A spill prevention and emergency response plan (SPERP) will be required for all construction contractor groups. The SPERP will need to identify at a minimum: emergency contact numbers for local, state and federal environmental and public health agencies, material safety data sheets (MSDS) for all hazardous substances, hazardous material inventory, spill prevention plan, spill response plan/emergency response plan, spill response equipment (e.g. absorbent pads, disposal containers) and reporting requirements.
3. Sediment control features (BMPs) will be implemented on land to limit sediment delivery to Lake Pontchartrain. Sediment control features will be required around all spoil and unclean gravel, sand and/or soil stock piles. Sediment control features may include but will not be limited to: sediment (silt) fence, straw waddles (fiber rolls), straw bales, sandbag barriers, plastic sheeting, storm drain inlet protection and street sweeping/vacuuming. As with any

stormwater control methods the implementation of the appropriate controls will be dictated by the type and amount of sediment being controlled and the forecasted environmental conditions. Monitoring of sediment control features will be required prior to and during rain events to ensure control features are installed correctly and are functioning as necessary.

4. In-water silt barriers (turbidity curtains) will be utilized at the pier removal site and the new pier location during in-water work activities. Silt barriers will need to be installed in a manner that contains the dislodged lakebed sediment to the immediate work area.
5. Barge decks that receive removed pilings and lakebed sediments will be fitted with containment basins made of plastic sheeting draped over straw bale sidewalls. Disposal of all debris and containment basin will be conducted to standards of local, state and federal laws.
6. Erosion control will be necessary for any ground disturbing activities (e.g. excavated areas to receive concrete fill, ground disturbed by heavy equipment). Choice of erosion control measure will be employed based on the type and duration of disturbance. For example, fiber rolls may be used to control sediment runoff around excavated sites that will be filled with concrete, areas of broken ground due to heavy equipment may receive mulch or hydroseeding to control sediment runoff as needed.
7. Any floating debris will be trapped by the silt barrier and removed from the water.
8. In-water work will only be conducted when waters are calm enough to allow for the efficacy of the silt barrier system.
9. Preserved wood used for pier piles and attachments will need to meet EPA standards for in-saltwater (or brackish water) application.
10. All BMPs identified above may be subject to additional requirements based on US Army Corps of Engineer's Rivers and Harbors Act § 10 and Clean Water Act permitting requirements.

Effect Determination

Based on the best currently available scientific information for the Gulf sturgeon's biological requirements and the required conservation measures identified above, FEMA is suggesting that any project related effects to the Gulf sturgeon will be discountable and is therefore requesting the Service's concurrence for a "*May Affect, but Not Likely to Adversely Affect*" determination for the Gulf sturgeon. FEMA is also requesting the Service's concurrence that the mitigated actions as described will not *destroy* or *adversely modify* designated critical habitat (Unit 8) for the Gulf sturgeon.

We would appreciate your review of the above determinations as they pertain to the Endangered Species Act of 1973. If you have any questions regarding this letter or need further clarification please call Mr. Kristiaan Stuart at (504) 762-2361 or email at kristiaan.stuart@assoaciates.dhs.gov.

Sincerely,

Tiffany Spann-Winfield
Deputy Environmental Liaison Officer
FEMA LRO, Region VI

CC:
NOAA-NMFS, Southeast Regional Office
Corps of Engineers, New Orleans, LA
LDWF, Natural Heritage Program, Baton Rouge, LA

Attachments:
Site Visit Species List

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CNO's Municipal Yacht Harbor Site Visit **June 08, 2012, 11:00 – 12:15pm**
Lake Pontchartrain and Shoreline
Conditions: Cloudy, light rain, 82°F, Winds S-SW 8 – 11 mph

Table 1. Species Observed List

Common Name	Scientific Name	Status	Observation Type
Fish			
Longnose gar (juvenile)	*Lepisosteus osseus*		Visual
Spotted seatrout (juvenile)	*Cynoscion nebulosus*		Visual
Birds			
American Crow	*Corvus brachyrhynchos*		Visual
Killdeer	*Charadrius vociferus*		Vocalization
Northern Mockingbird	*Mimus polyglottos*		Visual
Mourning Dove	*Zenaida macroura*		Visual
Purple Martin	*Progne subis*		Visual
Bachman's Sparrow	*Peucaea aestivalis*		Visual
Yellow-crowned Night-heron	*Nyctanassa violacea*		Visual
Mammals			
North American river otter	*Lontra canadensis*		Tracks
Plants			
Bermuda grass	*Cynodon dactylon*	FACU	Visual
Bulltongue arrowhead	*Sagittaria lancifolia*	OBL	Visual
Chinese tallow tree	*Triadica sebifera*	Invasive – Noxious[1]	Visual
Dock	*Rumex sp.*	FACW	Visual
Duckweed	*Lemna sp.*	OBL	Visual
Eastern baccharis	*Baccharis halimifolia*	FAC	Visual
Eastern elderberry	*Sambucus canadensis*	NL	Visual
Lambs quarter	*Chenopodium album*	FACU	Visual
Lotus	*Lotus sp.*	UPL	Visual
Morning glory	*Convolvulus sp.*	UPL	Visual
Mulberry	*Morus sp.*	FACU	Visual
Oleander	*Nerium oleander*	NL	Visual
Palmetto	*Sabal palmetto*	FAC	Visual
Rush	*Juncus sp.*	FACW - OBL	Visual
Spurge	*Euphorbia sp.*	FAC - FACU	Visual
Water oak	*Quercus nigra*	FAC	Visual

Wetland Indicator Species Designations for Region LRR O:

OBL	Obligate Wetland	Almost always is a hydrophyte, rarely in uplands
FACW	Facultative Wetland	Usually is a hydrophyte but occasionally found in uplands
FAC	Facultative	Commonly occurs as either a hydrophyte or non-hydrophyte
FACU	Facultative Upland	Occasionally is a hydrophyte but usually occurs in uplands
UPL	Obligate Upland	Rarely is a hydrophyte, almost always in uplands
NL	Not Listed	

1 – Listed by US Dept. of Agriculture as a Noxious Weed Species in Louisiana

From: Stuart, Kristiaan (CTR)
To: "Farabee, Michael V MVN"
Subject: RE: CWA 404/RHA 10 permiting for pier "removal" (UNCLASSIFIED)
Date: Wednesday, July 11, 2012 09:35:00

Yes, I have them detailed in the mechanics of the various potential actions. Thank you though for being thorough. I do appreciate it.

Regards,
Kristiaan

-----Original Message-----
From: Farabee, Michael V MVN [mailto:Michael.V.Farabee@usace.army.mil]
Sent: Wednesday, July 11, 2012 9:27 AM
To: Stuart, Kristiaan (CTR)
Subject: RE: CWA 404/RHA 10 permiting for pier "removal" (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Yes that all seems correct, and I must just make sure that you don't forget the regulatory authority of the LA Dept. of Natural Resources, Office of Coastal Management. I know we discussed it, that's not what your e-mail covers, but it's simply so you don't overlook their authority in the Coastal Zone.

Thanks,

Michael V. Farabee
New Orleans District
Regulatory Branch
Chief, Eastern Evaluation Section

(504) 862-2292
(504) 862-2117 -fax-

-----Original Message-----
From: Stuart, Kristiaan (CTR) [mailto:Kristiaan.Stuart@associates.fema.dhs.gov]
Sent: Wednesday, July 11, 2012 8:56 AM
To: Farabee, Michael V MVN
Subject: CWA 404/RHA 10 permiting for pier "removal"

Michael-

Thank you for your time yesterday discussing FEMA's interest in funding the removal and replacement of CNO's Municipal Yacht Harbor's fishing pier (30.027935°, -90.120575°, WGS84) as it relates to RHA Sect. 10 and Coastal Zone requirements. As I am preparing the EA for this project I am reviewing the "No Action Alternative" for the CWA 404, 401, 303d/RHA 10 requirements. It occurred to me that even though the applicant is responsible for the removal of the pier, the removal itself without the replacement component would not require a CWA 404 (no net addition of dredge or fill) but still may require a RHA Sect 10 permit (if one was never originally issued) due to the following statement in the RHA: " .or the accomplishment of any other work affecting the course, location, condition, or physical capacity of such waters is unlawful unless.". Am I correct in this interpretation?

Thanks again Michael for your assistance.

Regards,

Mr. Kristiaan Stuart (CTR)

Fluor - TRS Contractor

Federal Emergency Management Agency

1 Seine Court

New Orleans, LA 70114

(504) 762-2361 <tel:%28504%29%20762-2445> (Desk)

E-mail: kristiaan.stuart@associates.dhs.gov <mailto:kristiaan.stuart@associates.dhs.gov>

Classification: UNCLASSIFIED
Caveats: NONE

United States Department of the Interior

FISH AND WILDLIFE SERVICE
646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

July 24, 2012

Ms. Tiffany Spann-Winfield
Federal Emergency Management Agency
#1 Seine Court, Room 1065
New Orleans, LA 70114

Dear Ms. Spann-Winfield:

Please reference your June 26, 2012, letter, received June 28, 2012, requesting concurrence that the City of New Orleans' proposed Municipal Yacht Harbor Fish Pier removal and replacement located in Orleans Parishes, Louisiana is not likely to adversely affect the endangered West Indian manatee (*Trichechus manatus*) and the threatened gulf sturgeon (*Acipenser oxyrhynchus desotoi)*.. The Fish and Wildlife Service (Service) has reviewed the information you provided, and offers the following comments in accordance with the provisions of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

According to the information provided, the habitat in and around the action area does not contain aquatic vegetation necessary for suitable foraging habitat for manatees. To avoid impacts to manatees, the following conservation measures will be employed by construction personnel as a contingency for FEMA funding: (1) All personnel related to the construction project will receive worker awareness training on the West Indian manatee. This training will include at a minimum: the laws protecting manatees (Marine Mammal Protection Act, 1972 and the Endangered Species Act of 1973[ESA]) as a federally endangered species, a definition of "*take*" as it applies to the ESA, the fines and possible imprisonment for *take* of a West Indian manatee, images of manatees as they are likely to be seen in Lake Pontchartrain, vessel work area restrictions and special operating conditions, monitoring requirements, procedures if a manatee is sighted within 100-yards of the active work zone and who to call if a manatee is sighted. All personnel will need to sign a worker awareness training sign-in sheet as a record of their attendance and training received. Any new workers that did not receive the training will need to be trained before working in or near construction areas that require in-water work. (2) Informational signs will be posted in visible areas in any construction area where in-water work occurs including all project related vessels. The signs will have an image of a manatee as it is likely to be seen in Lake Pontchartrain, the federal listing status of the manatee, possible punishment for *take* of a manatee and phone numbers to immediately call in the event a manatee is see: USFWS's Lafayette Ecological Services Office (337) 291-3100 and the LDWF, Natural Heritage Program (225) 765-2821. These informational signs will be weather proofed and larege enough so that they can be read from a distance of 20-feet. Signs will be posted prior to and for the duration of the

construction project. (3) One person per construction site will be made responsible by their crew lead to call the phone numbers stated above in the event a manatee is sighted. (4) All construction personnel will be responsible for monitoring water-related activities for the presence of manatees as part of their regular duties. (5) The following are special conditions that will be followed in the event a manatee is sighted within 100-yards of the project area: (a) All construction personnel will have "*Stop Work*" authority if they see a manatee within 50-feet of a construction activity including moving vessels. (b) All vessels will operate at no-wake/idle speeds within 100-yards of the work area. (c) In-water sediment barriers or siltation barriers will need to be re-secured and monitored. (d) Work will only resume without restriction when a sighted manatee is greater than 100-yards away from the project area.

Based on the information provided, the Service concurs with the determination that the project is not likely to adversely affect the West Indian manatee.

According to the information, the placement of the new pier would not represent a temporary or long term obstruction for Gulf sturgeon passage to or from freshwater spawning areas. The potential impacts for sturgeon would be limited to temporary disturbances in the vicinity of the project area due to suspended sediment and acoustic disturbances derived from project activities. The following measures for Gulf sturgeon will be employed by construction personnel as a contingency for FEMA funding: (1) All personnel related to the construction project will receive worker awareness training on the Gulf sturgeon. This training will include at a minimum: the laws protecting the Gulf sturgeon (ESA) as a federally endangered species, a definition of "*take*" as it applies to the ESA, the fines and possible imprisonment for *take* of a Gulf sturgeon, images of the sturgeon as it is likely to be seen in Lake Pontchartrain. All personnel will need to sign a worker awareness training sign-in sheet as a record of their attendance and training received. Any new workers that did not receive the training will need to be trained before working in or near construction areas. (2) A spill prevention and emergency response plan (SPERP) will be required for all construction contractor groups. The SPERP will need to identify at a minimum: emergency contact numbers for local, state and federal environmental and public health agencies, material safety data sheets (MSDS) for all hazardous substances, hazardous material inventory, spill prevention plan, spill response plan/emergency response plan, spill response equipment (e.g. absorbent pads, disposal containers) and reporting requirements. (3) Sediment control features (BMPs) will be implemented on land to limit sediment delivery to Lake Pontchartrain. Sediment control features will be required around all spoil and unclean gravel, sand and/or soil stock piles. Sediment control features may include but will not be limited to: sediment (silt) fence, straw waddles (fiber rolls), straw bales, sandbag barriers, plastic sheeting, storm drain inlet protection and street sweeping/vacuuming. As with any stormwater control methods the implementation of the appropriate controls will be dictated by the type and amount of sediment being controlled and the forecasted environmental conditions. Monitoring of sediment control features will be required prior to and during rain events to ensure control features are installed correctly and are functioning as necessary. (4) In-water silt barriers (turbidity curtains) will be utilized at the pier removal site and the new pier location during in-water work activities. Silt barriers will need to be installed in a manner that contains the dislodged lakebed sediment to immediate work area. (5) Barge decks that receive removed piling and lakebed sediments will be fitted with containment basins made of plastic sheeting draped over straw bale sidewalls. Disposal of all debris and containment basin will be conducted to standards of local, state and

federal laws. (6) Erosion control will be necessary for any ground disturbing activities (e.g. excavated areas to receive concrete fill, ground disturbed by heavy equipment). Choice of erosion control measure will be employed based on the type and duration of disturbance. (7) Any floating debris will be trapped by the silt barrier and removed from the water. (8) In-water work will only be conducted when waters are calm enough to allow for the efficacy of the silt barrier system. (9) Preserved wood used for pier piles and attachments will need to meet EPA standards for in-saltwater (or brackish water) application. (10) All BMPs identified above may be subject to additional requirements based on U.S. Army Corps of Engineer's Rivers and Harbors Act § 10 and Clean Water Act permitting requirements.

Based on the information provided, the Service concurs with the determination that these projects are not likely to adversely affect the gulf sturgeon or its critical habitat.

If you have any questions regarding this letter, please contact Amy Trahan (337/291-3126) of this office.

Sincerely,

Brad Rieck
Deputy Field Supervisor
Louisiana Ecological Services Office

cc: LDWF, Natural Heritage Program, Baton Rouge, LA

Appendix D

Public Notice & Draft FONSI

FEMA PUBLIC NOTICE OF AVAILABILITY

Draft Environmental Assessment and Draft Finding of No Significant Impact for the City of New Orleans - Municipal Yacht Harbor Fishing Pier Project Orleans Parish, Louisiana

Interested parties are hereby notified that the Federal Emergency Management Agency (FEMA) has prepared a Draft Environmental Assessment (EA) and a Draft Finding of No Significant Impact (FONSI) for the proposed restroom replacement with upgrades to current codes and standards, and demolition and reconstruction of the Municipal Yacht Harbor Fishing Pier (Fishing Pier) in a new location.

The City of New Orleans (City) has submitted an application for FEMA Public Assistance funding being administered in response to FEMA-1603-DR-LA, Hurricane Katrina, which was signed as a Presidential Disaster Declaration on August 29, 2005. The Fishing Pier, which provided a safe outdoor recreational opportunity to the general public, was originally built on the western side of Breakwater Drive in the West End neighborhood north-northwest of West End Park. Due to the overwhelming storm damage to the Fishing Pier from Hurricane Katrina the City in consultation with FEMA determined that the original pier was damaged beyond repair. To replace the Fishing Pier in its original location would put it in the direct path of the 17th Street Canal's outflow. The City believes this would cause a detrimental impact to recreational fishing opportunities which is one of the main purposes of the pier. The City suggested an alternative location, out of the direct path of the 17th Street Canal, adjacent to the perimeter of the breakwater wall located at the north end of Breakwater Drive at the follow geographical coordinates: 30.029225°, -90.119590° (Lat., Long., WGS 84). It is the City's belief that this location will facilitate in a better recreational fishing experience for the general public.

In accordance with NEPA (42 U.S.C. 4371 et seq.), and associated environmental statutes, a Draft EA was prepared to evaluate the proposed action's potential impacts on the human and natural environment. The Draft EA summarizes the purpose and need for the proposed action, the site selection process, the affected environment, and the potential environmental consequences associated with the proposed action. The Draft FONSI is FEMA's finding that the proposed action will not have a significant effect on the human and natural environment.

The public notice will be published in the local newspaper, *The Advocate,* on the following dates: November 23, 24, 26, 27, and 28, 2012. It will also be published in another local newspaper, *The Times-Picayune,* on the following dates: November 23, 25, 28, 30 and December 02, 2012. The comment period will be 15 days – beginning on November 23, 2012 and concluding December 7, 2012. Written comments on the EA or related matters can be emailed to FEMA-NOMA@dhs.gov, faxed to FEMA's Louisiana Recovery Office at (504) 762-2323; or mailed to FEMA Louisiana Recovery Office, 1 Seine Court, New Orleans, Louisiana 70114. The public notices will announce the availability of the EA for public review at the Orleans Parish Main Library at 219 Loyola Avenue, New Orleans, LA 70112, (hours are 10 a.m. - 6 p.m., Mon. - Thurs., 10 a.m. - 5 p.m., Fri. & Sat.). The EA can also be viewed and downloaded from FEMA's website at: http://www.fema.gov/environmental-planning-and-historic-preservation-program/environmental-documents-public-notices-3.

Based on FEMA's findings to date, no significant adverse environmental effects are anticipated. However, if FEMA receives new information that results in a change from no adverse effects then FEMA would revise the findings and issue a second public notice allowing time for additional comments.

If no substantive comments are received, the Draft EA and associated Draft FONSI will become final and this initial Public Notice will also serve as the final Public Notice.

U.S. Department of Homeland Security
Louisiana Recovery Office
1 Seine Ct.
New Orleans, LA 70114

DRAFT FINDING OF NO SIGNIFICANT IMPACT (FONSI)
Draft Environmental Assessment
Municipal Yacht Harbor Fishing Pier
Orleans Parish, Louisiana
FEMA-1603-DR-LA

Introduction

As a result of damages from Hurricane Katrina on August 29, 2005, the Federal Emergency Management Agency (FEMA) was authorized under a Presidential disaster declaration (FEMA-1603-DR-LA) to provide Federal assistance to designated disaster areas in Louisiana. The Robert T. Stafford Disaster Relief and Emergency Assistance Act (PL 93288) Section 406 authorizes FEMA's Public Assistance (PA) Program to provide financial and other forms of assistance to State and local governments to support response, recovery, and mitigation efforts following Presidentially declared disasters.

In accordance with the National Environmental Policy Act (NEPA), the President's Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 CFR 1500-1508), and FEMA's NEPA implementing regulations (44 CFR 10 et seq.), a Draft Environmental Assessment (DEA) has been prepared. The purpose of the DEA is to analyze the potential environmental impacts associated with the relocation of the Municipal Yacht Harbor Fishing Pier and to determine whether to prepare an Environmental Impact Statement (EIS) or Finding of No Significant Impact (FONSI). The proposed project aims to restore community services lost on August 29, 2005, as a result of Hurricane Katrina.

Proposed Action

The Municipal Yacht Harbor Fishing Pier was damaged from storm surge resulting from Hurricane Katrina to an extent that it qualified for replacement. According to the City of New Orleans (Applicant), the replacement pier would better meet the needs of the public and the purpose of the fishing pier if it were to be located out of the path of flow from the 17th Street Canal and located approximately 490 ft to the north-northeast of the original pier location, adjacent to an existing breakwater wall north of Breakwater Drive. The project also involves the replacement of a restroom structure that had been leveled by storm surge and flotsam during Hurricane Katrina. The restroom replacement will be located at the structures original footprint but will be elevated to meet current floodplain regulations.

Conditions

Based upon the studies and consultations undertaken in the DEA, several conditions must be met and mitigation measures taken by the applicant prior to and during project implementation.

Federally Protected Species and Critical Habitat Conservation Measures

West Indian manatee (*FE*) Conservation Measures

The following conservation measures during the West Indian manatee summer migration (June 01 through September 30) will be employed by construction personnel as a contingency for FEMA funding:

1. All personnel related to the construction project will receive worker awareness training on the West Indian manatee. This training will include at a minimum: the laws protecting the West Indian manatee (Marine Mammal Protection Act, 1972 and the Endangered Species Act of 1973) as a federally endangered species, a definition of "*take*" as it applies to the Endangered Species Act, the fines and possible imprisonment for *take* of a West Indian manatee, images of the West Indian manatee as it is likely to be seen in Lake Pontchartrain, vessel work area restrictions and special operating conditions, monitoring requirements, procedures if a manatee is sighted within 100-yards of the active work zone and who to call and who will call if a manatee is sighted. All personnel will need to sign a worker awareness training *sign-in sheet* as a record of their attendance and training received. Any new workers that did not receive the training will need to be trained before working in or near construction areas that require *in-water* work.
2. Informational signs will be posted in visible areas in any construction area where in-water work occurs including all project related vessels. The signs will have an image of a manatee as it is likely to be seen in Lake Pontchartrain, the federal listing status of the manatee, possible punishment for *take* of a manatee and phone numbers to immediately call in the event a manatee is seen: USFWS's Lafayette Field Office (337) 291-3100 and the LDWF, Natural Heritage Program (225) 765-2821. These informational signs will be weather proofed (laminated) and large enough so that they can be read from a distance of 20-feet. Signs will be posted prior to and for the duration of the construction project.
3. One person per construction site will be made responsible by their crew lead (if not the lead) to call the phone numbers stated above in the event a manatee is sighted.
4. All construction personnel will be responsible for monitoring water-related activities for the presence of manatees as part of their regular duties.
5. The following are special conditions that will be followed in the event a manatee is sighted within 100-yards of the project area:
    a. All construction personnel will have "*Stop Work"* authority if they see a manatee within 50-feet of a construction activity including moving vessels.

b. All vessels will operate at no-wake/idle speeds within 100-yards of the work area.
c. In-water sediment barriers or siltation barriers will need to be re-secured and monitored.
d. Work will only resume without restriction when a sighted manatee is greater than 100-yards away from the project area.

The following conservation measures for the West Indian manatee will be employed by construction personnel, regardless of season, as a contingency for FEMA funding:

1. All construction personnel will be responsible for monitoring water-related activities for the presence of manatees as part of their regular duties.
2. The following are special conditions that will be followed in the event a manatee is sighted within 100-yards of the project area:
    a. All construction personnel will have "*Stop Work"* authority if they see a manatee within 50-feet of a construction activity including moving vessels.
    b. All vessels will operate at no-wake/idle speeds within 100-yards of the work area.
    c. In-water sediment barriers or siltation barriers will need to be re-secured and monitored.
    d. Work will only resume without restriction when a sighted manatee is greater than 100-yards away from the project area.

Gulf sturgeon (*FT*) Conservation Measures

The following conservation measures for Gulf sturgeon will be employed by construction personnel as a contingency for FEMA funding:

1. All personnel related to the construction project will receive worker awareness training on the Gulf sturgeon. This training will include at a minimum: the laws protecting the Gulf sturgeon (Endangered Species Act of 1973) as a federally endangered species, a definition of "*take*" as it applies to the Endangered Species Act § 3.19, the fines and possible imprisonment for *take* of a Gulf sturgeon, images of the Gulf sturgeon as it is likely to be seen in Lake Pontchartrain. All personnel will need to sign a worker awareness training *sign-in sheet* as a record of their attendance and training received. Any new workers that did not receive the training will need to be trained before working in or near construction areas.
2. A spill prevention and emergency response plan (SPERP) will be required for all construction contractor groups. The SPERP will need to identify at a minimum: emergency contact numbers for local, state and federal environmental and public health agencies, material safety data sheets (MSDS) for all hazardous substances, hazardous material inventory, spill prevention plan, spill response plan/emergency response plan,

spill response equipment (e.g. absorbent pads, disposal containers) and reporting requirements.

3. Sediment control features (BMPs) will be implemented on land to limit sediment delivery to Lake Pontchartrain. Sediment control features will be required around all spoil and unclean gravel, sand and/or soil stock piles. Sediment control features may include but will not be limited to: sediment (silt) fence, straw waddles (fiber rolls), straw bales, sandbag barriers, plastic sheeting, storm drain inlet protection and street sweeping/vacuuming. As with any stormwater control methods the implementation of the appropriate controls will be dictated by the type and amount of sediment being controlled and the forecasted environmental conditions. Monitoring of sediment control features will be required prior to and during rain events to ensure control features are installed correctly and are functioning as necessary.
4. In-water silt barriers (turbidity curtains) will be utilized at the pier removal site and the new pier location during in-water work activities. Silt barriers will need to be installed in a manner that contains the dislodged lakebed sediment to the immediate work area.
5. Barge decks that receive removed pilings and lakebed sediments will be fitted with containment basins made of plastic sheeting draped over straw bale sidewalls. Disposal of all debris and containment basin will be conducted to standards of local, state and federal laws.
6. Erosion control will be necessary for any ground disturbing activities (e.g. excavated areas to receive concrete fill, ground disturbed by heavy equipment). Choice of erosion control measure will be employed based on the type and duration of disturbance. For example, fiber rolls may be used to control sediment runoff around excavated sites that will be filled with concrete, areas of broken ground due to heavy equipment may receive mulch or hydroseeding to control sediment runoff as needed.
7. Any floating debris will be trapped by the silt barrier and removed from the water.
8. In-water work will only be conducted when waters are calm enough to allow for the efficacy of the silt barrier system.
9. Preserved wood used for pier piles and attachments will need to meet EPA standards for in-saltwater (or brackish water) application.
10. All BMPs identified above may be subject to additional requirements based on US Army Corps of Engineer's Rivers and Harbors Act § 10 and Clean Water Act permitting requirements.

Loggerhead (*FT*), Kemp's Ridley (*FE*), and Green Sea Turtles (*FT*) Conservation Measures

The following conservation measures for federally listed sea turtles will be employed by construction personnel as a contingency for FEMA funding:

1. All personnel related to the construction project will receive worker awareness training on sea turtles. This training will include at a minimum: the laws protecting federally listed sea turtles (Endangered Species Act of 1973) as federally threatened or endangered species, a definition of "*take*" as it applies to the Endangered Species Act, the fines and possible imprisonment for *take* of a federally listed sea turtle, images of sea turtles as they are likely to be seen in Lake Pontchartrain, vessel work area restrictions and special operating conditions, monitoring requirements, procedures if a sea turtle is sighted within 100-yards of the active work zone and who to call and who will call if a sea turtle is sighted. All personnel will need to sign a worker awareness training *sign-in sheet* as a record of their attendance and training received. Any new workers that did not receive the training will need to be trained before working in or near construction areas that require *in-water* work.
2. One person per construction site will be made responsible by their crew lead (if not the lead) to call the phone numbers stated here in the event a sea turtle is sighted. NMFS Baton Rouge Field Office (504) 389-0508 and the LDWF, Natural Heritage Program (225) 765-2821.
3. All construction personnel will be responsible for monitoring water-related activities for the presence of sea turtles as part of their regular duties.
4. The following are special conditions that will be followed in the event a sea turtle is sighted within 100-yards of the project area:
    a. All construction personnel will have "*Stop Work"* authority if they see a sea turtle within 50-feet of a construction activity including moving vessels.
    b. All vessels will operate at no-wake/idle speeds within 100-yards of the work area.
    c. In-water sediment barriers or siltation barriers will need to be re-secured and monitored.
    d. Work will only resume without restriction when a sighted sea turtle is greater than 100-yards away from the project area.

Archeological Artifacts

1) Fill or borrow material used must be sourced from sites that do not contain any buried cultural materials (i.e., wells, cisterns, foundations, basements, prehistoric Indian artifacts, human burials, and the like). If during the course of work, archaeological artifacts (prehistoric or historic) or human remains are discovered, City of New Orleans and/or its contractors must immediately stop work in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. The Applicant and GOHSEP must inform the FEMA Public Assistance program, who would in turn contact the FEMA Historic Preservation staff. The Applicant must not proceed with work until FEMA completes the necessary reviews required by Section 106 of NHPA. In addition, if unmarked graves are present, compliance with the Louisiana Unmarked Human Burial Sites Preservation Act is required. In that situation, the Applicant must notify the local

law enforcement agency within 24 hours of the discovery, and notify FEMA and the Louisiana Division of Archaeology at (225) 342-8170 within 72 hours of the discovery. Failure to comply with these stipulations may jeopardize FEMA funding of the project.

2) If human bone or unmarked grave(s) are present with the project area, compliance with the Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671 et seq.) is required. The applicant shall notify the law enforcement agency of the jurisdiction where the remains are located within twenty-four hours of the discovery. The applicant shall also notify FEMA and the Louisiana Division of Archaeology at 225-342-8170 within seventy-two hours of the discovery.

3) If during the course of work, archaeological artifacts (prehistoric or historic) are discovered, the applicant shall stop work in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. The applicant shall inform their Public Assistance (PA) contacts at FEMA, who will in turn contact FEMA Historic Preservation (HP) staff. The applicant will not proceed with work until FEMA HP completes consultation with the SHPO.

General Construction

1) Construction traffic should be closely monitored and controlled as appropriate. All construction activities would be conducted in a safe manner in accordance with OSHA work zone traffic safety requirements.

2) To alert motorists and pedestrians of project activities, appropriate signage and barriers would be on site prior to and during construction activities. During construction activities, the construction site(s) would be fenced off to discourage trespassers.

3) LDEQ has stormwater general permits for construction areas equal to or greater than one acre. It is recommended that the LDEQ Water Permit Division be contacted at (225) 219-3181 to determine whether the proposed improvements require one of these permits. The contractor is required to implement BMPs that meet the LDEQ permitting specifications for storm water discharge regulated under Section 402 of the CWA.

4) Any changes or modifications to the proposed project would require a revised USACE determination. Off-site locations of activities such as borrow, disposals, haul-and detour-roads and work mobilization site developments may be subject to the USACE regulatory requirements.

5) The applicant is responsible for coordinating with and obtaining any required section 9, 10 and/or 404 permit(s) from the United States Army Corps of Engineers (USACE) prior to initiating work. All coordination pertaining to these activities should be documented and copies forwarded to the State and FEMA as part of the permanent project files

6) The project has been found by the Louisiana Department of Natural Resources (LDNR) to be inside the Louisiana Coastal Zone; therefore, they require that a complete Coastal Use Permit Application package (Joint Application Form, locality maps, project illustration plats with plan and cross section views, etc.) along with the appropriate application fee be submitted to their office prior to construction.

Hazardous Materials and Spill Response

1) 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.

2) In the event of a spill of hazardous chemicals including petro-chemicals into a waterway or that may come in contact with a waterway the EPA Region 6 – Spill Hotline 866-372-7745 (866-EPA-SPILL) will be called by the acting construction site supervisor.

Floodplain Conditions

1) By Memorandum of 1/4/12 from Frank Pagano, Mitigation Division Director of FEMA Region 6 to John Connolly, Senior Public Assistance Advisor, Louisiana Recovery Office, the 2008 Preliminary Digital Flood Insurance Rate Map (DFIRM) elevation is required for the restroom structure. Applicant is required to coordinate with the local floodplain administrator regarding floodplain permit(s) prior to the start of any activities. All coordination pertaining to these permit(s) should be documented to the local floodplain administrator and copies provided to LA GOHSEP and FEMA as part of the permanent project files. Per 44 CFR 9.11 (d)(9), contents, materials and equipment, where possible, disaster-proofing of the building and/or elimination of such future losses should occur by relocation of those building contents, materials and equipment outside or above the base floodplain.

Conclusion

The results of these evaluations, as well as consultations and input from other federal and state agencies, are presented in the EA. Based on the information analyzed, FEMA has determined that the implementation of the proposed action would not result in significant adverse impacts to the quality of the natural and human environment. In addition, the proposed project does not appear to have the potential for significant cumulative effects when combined with past, present and reasonably foreseeable future actions. As a result of this FONSI, an EIS will not be prepared (per 44 CFR Part 10) and the proposed project as described in the EA may proceed.

Public Review and Comment

The public notice will be published in the local newspaper, *The Advocate,* on the following dates: November 23, 24, 26, 27, and 28, 2012. It will also be published in another local

newspaper, *The Times-Picayune*, on the following dates: November 23, 25, 28, 30 and December 02, 2012. The comment period will be 15 days – beginning on November 23, 2012 and concluding December 7, 2012. Written comments on the EA or related matters can be emailed to FEMA-NOMA@dhs.gov, faxed to FEMA's Louisiana Recovery Office at (504) 762-2323; or mailed to FEMA Louisiana Recovery Office, 1 Seine Court, New Orleans, Louisiana 70114. The public notices will announce the availability of the EA for public review at the Orleans Parish Main Library at 219 Loyola Avenue, New Orleans, LA 70112, (hours are 10 a.m. - 6 p.m., Mon. - Thurs., 10 a.m. - 5 p.m., Fri. & Sat.). The EA can also be viewed and downloaded from FEMA's website at: http://www.fema.gov/environmental-planning-and-historic-preservation-program/environmental-documents-public-notices-3.

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Katherine Zeringue
Environmental Liaison Officer
Louisiana Recovery Office, New Orleans
FEMA-1603/1607-DR-LA

Date

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Andre Cadogan
Deputy Director for Operations
Louisiana Recovery Office, New Orleans
FEMA-1603/1607-DR-LA

Date