Bochicchio, Juliet - RD, Washington, DC

From: Bechdol, Michael <bechdol.michael@epa.gov>
Sent: Tuesday, May 20, 2014 3:00 PM
To: Bochicchio, Juliet - RD, Washington, DC
Subject: FW: Port of Alexandria, Rapides Parish, LA > Chicot Aquifer SSA > USDA Request
Attachments: USEPA SSA Site Summary.pdf; USACENPRLtr.pdf; Revision14-05-05_epa exhibit-usepa exb 1.pdf

Here it is.

Michael Bechdol
US EPA Region 6 (6WQ-SG)
1445 Ross Avenue
Dallas, TX 75202
214-665-7133

-----Original Message-----
From: Trimble, Paul [mailto:Paul.Trimble@MMLH.com]
Sent: Thursday, May 15, 2014 3:02 PM
To: Bechdol, Michael
Subject: Port of Alexandria, Rapides Parish, LA > Chicot Aquifer SSA > USDA Request

Good afternoon Mr. Bechdol;

The Port of Alexandria has leased property to Cool Planet Energy Systems for construction of a bio-fuels, green energy refinery, situated on the river side of the Red River Levee. Cool Planet is seeking a USDA Business & Industry Loan for construction of the refinery and has been advised by USDA of the requirement to gain evaluation of the potential impact to the Chicot SSA. The site naturally drains directly to the Red River and due to the proximity to the flood control levee system, all aspects of the project are subject to review by the USACE under Section 408.

Attached is a summary of the site use, acreages, basic tank primary and secondary containment design requirements and storm water retention and waste water treatment and disposal areas. The exhibit graphically locates the various areas and provides the latitude and longitude for the site. The USACE letter indicating No Permit Required due to the absence of wetland and jurisdictional areas is the third attachment.

Should you require any additional information, please advise our office.

Port of Alexandria - Cool Planet Lease
%Paul Trimble, PE, Engineer of Record
100 Engineer Place
Alexandria, LA 71303
(318) 448-0888

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

June 11, 2014

Port of Alexandria – Cool Planet Lease
c/o Mr. Paul Trimble, PE
100 Engineer Place
Alexandria, LA 71303

Dear Mr. Trimble:

We have received your May 15, 2014, email requesting our evaluation of the potential environmental impacts that might result from the following project:

Construct Bio-Fuels Refinery
& Process Facility
28 Acre Tract, Section 5, T4N-R1W
Rapides Parish
Port of Alexandria, Louisiana

The project, proposed for financial assistance with a United States Department of Agriculture Business and Industry Loan, is located on the Chicot aquifer system, which has been, designated a sole source aquifer by the EPA. Based on the information provided for the project, we have determined that the project, as proposed, should not have an adverse effect on the quality of the ground water underlying the project site.

This approval of the proposed projects does not relieve the applicant from adhering to other State and Federal requirements, which may apply. This approval is based solely upon the potential impact to the quality of ground water as it relates to the EPA's authority pursuant to Section 1424(e) of the Safe Drinking Water Act.

If you did not include the parish, project description, project location or the federal funding agency, please do so in future Sole Source Aquifer correspondence.

If you have any questions on this letter or the sole source aquifer program please contact me at (214) 665-7133.

Sincerely yours,

Michael Bechdol, Coordinator
Sole Source Aquifer Program
Ground Water/UIC Section

cc: Juliet Bochicchio, USDA
Jesse Means, LDEQ

Port of Alexandria, Rapides Parish, Louisiana

Alexandria Regional Port Authority
Cool Planet Genesis Bio-fuels Refinery
USDA – B&I Program, Financing

The Port of Alexandria has leased approximately 28 acres of batture within the port on the Red River to Cool Planet Energy Systems for its Cool Planet Genesis facility. The USACE has issued a letter of No Permit Required (attached) for the site which lies riverside of the Red River Levee. Exhibit 1 (attached) delineates the four primary areas and uses of the leased property, as further described hereafter.

Area 1: Access, access control and gated entry, operations facility and warehouse, truck scales and fire protection facility including a ground storage water tank and fire pump house.

Storm water runoff from Area 1 will be collected in a storm water retention pond (Area 1-1) for sampling prior to controlled discharge.

Area 2: Bio-fuels refinery and process facility.

Process liquids and product will be contained in double bottom tanks, with leak detection, in two areas (Areas 2-1 and 2-2) within Area 2. Each tank location will be protected and provided secondary containment by concrete lined and sealed dikes with discharge control valves and piping. Discharge piping to the industrial wastewater treatment facility and/or industrial storm water retention system (Area 2-3). Normal discharge will be directed to the industrial storm water retention system for sampling prior to controlled discharge or by-passed to the treatment facility.

Industrial wastewater will be treated in accordance with the City of Alexandria's pre-treatment requirements prior to transmission to the City's waste water collection system and treatment facility.

Area 3: Bio-mass, wood chip delivery, storage and handling area.

Storm water runoff from Area 3 will be screened and piped to the storm water retention pond located in Area 4.

Area 4: Facility flare area.

Area 4 contains the storm water retention pond (Area 4-1) for Areas 3 and 4. There is limited allowable use of the flare area for other purposes.

The perimeter roadway will effectively control off-site or upland storm water runoff, directing the runoff along the perimeter of the facility to natural discharge locations to the river. The roadway will also direct on-site run-off to the storm water drainage systems and retention ponds.

March 21, 2014

Jeff Weller, Field Supervisor
USFWS
646 Cajundome Boulevard, Suite 400
Lafayette, LA 70506

Re: Cool Planet Louisiana, LLC – Port Authority of Alexandria – 27 acre conversion facility

Dear Mr. Weller,

The U.S. Department of Agriculture Rural Business-Cooperative Service (RBS) requests a letter of concurrence from the USFWS with respect to our determination of "**may affect/not likely to affect**" for the Endangered Interior Least Tern and the Red-cockaded Woodpecker and a **"no effect"** determination for the Endangered Pallid Sturgeon, for the proposed Cool Planet woody biomass to renewable fuels conversion facility proposed in Rapides Parish, LA. This request is made under the requirements of Section7 of the Endangered Species Act.

RBS is in the process of preparing an Environmental Assessment (EA) on the proposal in accordance with the National Environmental Policy Act. The EA includes an analysis of potential impacts to threatened and endangered species on the site and affected area.

Project Description

RBS proposes to issue a guaranteed loan to Silicon Valley Bank for Cool Planet Louisiana, LLC to construct and operate a woody biomass conversion facility in Alexandria, LA. Cool Planet plans to produce 10 million gallons per year of non-ethanol, drop-in renewable fuel blendstocks for gasoline, jet and diesel, as well as biochar and ash, from the conversion of pine wood chips sourced within Louisiana. This proposal would impart overall environmental benefits related to its reduction in greenhouse gas emissions from a reduction in the burning of fossil fuels.

The proposal is to be located within a leased portion of the existing Alexandria Regional Port Authority, an existing industrial park, located at 600 Port Road, Alexandria, LA 71303, and would include the construction and operation of the facility and related infrastructure on 27 acres within the Port (**Attachments 1 and 2 – Vicinity Maps).** Construction and operation, including

United States Department of Agriculture, Rural Development
1400 Independence Avenue, SW
Stop 0761, Room 6900
Washington DC, 20250
Voice (202) 720-9619 Fax (202) 690-4335

Environmental Assessment

Alexandria Port Authority

L.E.D. Cerification

37.2 Acre Site

Alexandria, Louisiana

Prepared for:

Alexandria Port Authority

PREPARED BY:

BOSSO IMHOF
ENVIRONMENTAL SCIENCES, INC.
1300 West Government Street
Pensacola, FL 32503 (850)434-1935

September 27, 2013

TABLE OF CONTENTS

TABLES

FIGURES

1. INTRODUCTION

This report presents the findings of an Environmental Assessment (EA) conducted on behalf of the Alexandria Port Authority. Bosso-Imhof Environmental Sciences, Inc. (Bosso-Imhof) has prepared this EA in conformance with US Army Corps of Engineers (CE), Federal Fish and Wildlife (FWS) and Louisiana Department of Wildlife and Fisheries (LDWF) standards, practices and procedures as outlined in the most current guidelines. Alexandria Port Authority is seeking certification in the Louisiana Economic Development (LED) program for a 37.2 acre tract of land adjacent to and contiguous to surrounding property which they currently own. Overall, the Port Authority holds title to approximately 150 acres of which the subject 37.2 acres is a subset.

It is anticipated that development expansion of the 37.2 acres will be used for industrial, interstate and intrastate commerce. The findings in this report satisfy the requisite LED certification guidelines as listed under section L of the LED application.

1.1 Objectives

The specific objectives are to of this EA are:

- Conduct jurisdictional determinations in accordance with CE Section 404 guidelines
- Field delineate jurisdictional waters and wetlands
- GPS locate jurisdictional areas and prepare representative graphics
- Conduct field review of The Site for the presence of listed species
- List federal and state threatened and endangered (TE) plant and animal species with known records of occurrence in the project vicinity
- Identify their habitat requirements and describe the distributions and habitat use of TE species presently occurring in the project vicinity

1.2 Study Area

The study area, herein known as "the Site", consists of 37.2 acres of Alexandria Port Authority land as displayed in the figures of this report. The Site lies in north central Rapides Parish and within the city limits of Alexandria. It is positioned in Sections 11 and 12, Township 4-North, Range 1-West with a central location near 92°28'13.484"W longitude and 31°20'6.958"N latitude (NAD 1983 UTM Zone 15N). The Site is bound to the north by the Red River, to the east by Diamond B Construction Company, to the west by the port and to the south by the flood control levee. It is irregularly shaped, but the Site boundaries are clearly discernible in the field. Boundary fencing secures the landward extents of the entire Port Authority's property with the exception of the riverfront. Access is gained via River Port Road and an existing gated drive into the Port facility.

The Site is characterized by two distinct settings: maintained pasture and natural woodlands. Both of these land types are clearly evident in the recent aerial photographs as displayed in Figures 2 & 3. Between 1982 and 1994, the CE completed a major channelization and flood prevention project on the Red River. This project not only shortened the flow distance between the Mississippi River and Shreveport, LA, but established a minimum channel width and depth throughout this reach. During the project, dredged river material was spoiled on adjacent properties including the Site. The fill material consisted of fine river sand that raised the elevation of a large portion of the Site by as much as 10 feet. Although the sandy substrate is very permeable, the finished surface layer was equipped with shallow swales for directing storm water runoff toward the wooded portion of the Site. A final grade which ranges between 94 and 96 feet extends across the entire southern section of the Site. The sandy surface layer is protected with a dense cover of upland turf grasses such as Bahia grass and Bermuda grass. Drought tolerant herbs such as Poor Joe weed, Ragweed and Broomsedge cover inclusions of nutrient poor sands within the turf. These are identified on the aerial photography by patches of white sand. Routine mowing of this area has provided a competitive advantage for the turf and in turn has maintained erosional stability of the sandy soil.

The remainder of the Site, consisting of the wooded area located between the maintained pasture and the river is also anthropogenically disturbed. It is comprised of early successional upland and wetland hardwoods underlain by a dense cover of vines, briars and canes. Large breaks in the tree canopy which can be identified on the aerial photograph in Figures 2 & 3 as a fuzzy green texture, consists of solid, 5 foot deep layers of Poison ivy and Woodbine in the field. Many of the hardwoods are naturally recruited from a ground banked seed source or natural seed dispersal. Vegetative transitions are abrupt at the wetland and upland interface and generally correspond to the topographic gradients produced by the side cast spoil material. A deeply cut ditch that discharges storm water to the river bisects the wooded portion of the site and provides drainage to the entire Site. The ditch is indicative of the long narrow linear connection between the river and wetland. All of the shallow upland swales in the pasture are channeled to this ditch as well as overflow water in the adjacent wetland.

2. STUDY METHODS

Listed species and their habitats which are known to occur in Rapides Parish (Table 1.) and which are protected under Louisiana Title 56 and the United States Endangered Species Act (ESA) of 1973 (7 U.S.C. §1531 et seq.) were carefully investigated. Although species with a recorded occurrence in Rapides Parish were given special attention, all listed species were considered during the site reconnaissance. Threatened species represent plants and animals that are likely to become endangered within the foreseeable future throughout all

of or a significant portion of their range. Endangered species are considered those plants and animals that have become so rare that they are in danger of becoming extinct.

Jurisdictional wetlands and other waters determinations were conducted in accordance with the Regional Supplement to the *Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region* (Version 2.0). Jurisdictional areas were field delineated with survey flagging tape. Each flagged point was alpha-numerically labeled and subsequently located using a handheld, Trimble GEO XT GPS unit. Data collected during the field survey were imported into a GIS for the generation of report graphics. Routine CE wetland data sheets that establish an analytical basis for the upland and wetland determination were completed in the field and finalized in *Wetforms®* digital format are provided in attachment 2. Representative site photographs which depict the visual conditions at the time of the site survey are displayed in Attachment 3.

2.1 Review of Existing Information

Species were investigated according to the study approaches recommended by state and federal agencies and the latest, most up to date literature. Tabular listings of TE species with known records of occurrence in the study area were reviewed in the following government databases:

- Louisiana Natural Heritage Program
- Louisiana Department of Wildlife and Fisheries
- Louisiana Department of Natural Resources SONRIS
- Nature Serve Explorer
- US Fish and Wildlife (FWS)
- Untied States Department of Agriculture (USDA) Natural Conservation Resources Conservation Service: Plants Database
- USGS National Wetland Inventory

Other key sources of information and data used in performing this study included but were not limited to the following:

- LSU Atlas: The Louisiana Statewide GIS database
- USDA historic aerials
- USDA Natural Resource Conservation Service Soil data
- US Geographical Survey (USGS) topographic quadrangles
- USDA National Elevation Data, 2 meter or better
- Digital Elevation Models
- Historic Aerials
- Noni Map View

2.2 Listed Species Field Reconnaissance Survey

This report provides specific information within the project area, its natural communities, and its capacity to support listed species known to occur in Rapides Parish. Field reconnaissance review was conducted during the month of August 2013. Pedestrian transects at varying intervals according to species type and habitat makeup were utilized to adequately cover the project area. Data collected during the field reconnaissance phase of the study was documented using a handheld Trimble XT, 2008 series, sub-meter accurate GPS unit. These data were compiled and expressed in the report graphics.

Field notes were recorded and digital photographs of the general nature of the Site along with any observed species were captured. A series of color, black & white and infrared aerial photographs and raster data ranging from 1985 to 2012 were carefully studied prior to field survey. USGS topographic quadrangles were also utilized to identify representative elevation conditions and land use improvements in the general vicinity. Remote sensing techniques were employed to evaluate potential habitats or vegetative community types that would be indicative of adequate or sustaining habitat for listed species. Identifying occurrences of TE aquatic species considered data base queries of previously recorded terrestrial and aquatic surveys by the FWS and other sources.

3. PROTECTED SPECIES

Coordination with LDWF staff regarding a query of the state data base relative to known occurrences of listed species or species of special concern in Rapides Parish resulted in nine species being identified. These include three birds, two fish, two reptiles, one amphibian and one clam.

3.1 Plant Species

The issue of listed plants is treated slightly differently than animals with prime interest being afforded to federally listed species. Under this heading, however, no plants are listed by either the state or federal governments for protection at this time.

3.2 Aquatic Species

Louisiana Pearshell (*Margaritifera hembeli*) – Listed as Endangered by the State and Threatened by FWS, this freshwater mussel is oblong with moderately full beaks without obvious sculpture. The adults are approximately 4.0" long, 2" high and 1.2" wide. The species is typically associated with small sandy streams within mixed pine hardwood forests. Habitat which supports this species is not present on site or proximal to the site. Development activities on the site will "Not Affect" the Louisiana Pearlshell.

Southeastern Blue Sucker (*Cycleptus meridionalis*) – Not listed by the State or FWS, the Southeastern blue sucker is a large elongate benthic fish that reaches a maximum length of approximately 24 inches. This species is gray on the top and sides and has a white underside. The Southeastern blue sucker has heavy lips and feeds on insect larva and nematodes. This species prefers moderate currents in medium to large rivers. The Southeastern blue sucker typically returns to the same area for breeding. The major threats to this species include damming, dredging and discharges that reduce water quality. This species is typically found east of the Mississippi River, and is not known to occur in Rapides Parish. Development activities on the site will "Not Affect" the Southeastern Blue Sucker.

Bluehead Shiner (*Pteronotropis hubbsi*) – Not listed by the State or FWS, the Bluehead shiner is a small fish that reaches a maximum length of about 2.5 inches and has a large dorsal fin. A dark lateral stripe crosses the chin and extends to the caudal base. The stripe at the caudal base is wider and extends a short distance onto the caudal rays. This species is typically found in quiet, slow moving, tea colored waters that are heavily vegetated so they can hide for protection. The typical substrate ranges from mud and detritus to mixed mud and sand. The major threats to this species include water quality degradation and dams preventing migration patterns. Aquatic habitat requirements are not provided by the Site for this species. Terrestrial activities on the Site will "Not Affect" the Bluehead Shiner.

3.3 Wildlife Species

3.3.1 Federally Protected Species

Interior least tern (*Sterna antillarum*) – Listed as endangered by both the LDWF and FWS, this species of bird is approximately 9" long with a yellow bill, a black cap through the eyes, a pale gray back and wings and a white breast and underside. The least tern nests from late April to August along marine and estuarine shores or on sandbar islands in large rivers. Ideally this species nests in sand or gravel areas with little to no vegetation. The major threats to this species are dams and reservoirs, which have caused the flooding of the sandbars where this species nests, and nest disturbances from recreational activities causing Interior least terns to abandon their nests. The closest sandbar which may provide nesting habitat for this species occurs over 3.5 miles upriver. Suitable nesting habitat is not provided by the site. Development activities on the site will "Not Affect" the Interior Least Tern.

Red-cockaded woodpecker (*Picoides borealis*) – Listed as endangered by both State and USFWS, this species is a relatively small woodpecker with prominent white bars. The crown, nape and back of the neck are black and there is a black line from the bill down to the side of the neck. The cheeks, side of the neck and throat are white and there is a white eyebrow line. The tail is black with white on the outer features and the underside is white

with black streaks on the flanks. The males have an inconspicuous red mark on each side of the crown. This species is found in longleaf pine forests and in mixed pine-upland hardwood forest with little or no hardwood mid-story. Good habitat consists of pine stands with trees 22.9 cm and larger in diameter at breast height. Pine stands with or without out adequate management do not occur near the site. Therefore habitat is not present on the Site and development activities will "Not Affect" the Red-Cockaded woodpecker.

3.3.2 State Protected Species

Bald Eagle (*Haliaeetus leucocephalus)*

The Bald eagle (Haliaeetus leucocephalus) is protected only by the state since the FWS delisted this species from the Endangered Species Act in 2007. The Bald eagle is, however, afforded protection under the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act and the Lacey Act. Due to a lack of habitat and exceedingly low potential for habitat development, development actions will "Not Affect" the Bald eagle. Tree species old, and tall enough to support an eagle's nest do not occur on or nearby the Site. Additionally, review of the project area did not reveal any signs of active or inactive nesting sites.

Alligator Snapping Turtle (*Macroclemys temminkii*) – Listed only by the State as Restricted Harvest, this turtle has webbed toes, an upper jaw with a strongly hooked beak and eyes on the side of the head. There are three dark brown peaked heels on the carapace and five pairs of plastral scutes. The plastron is small, narrow and cross-shaped with a long narrow bridge. This species is typically found in freshwater lakes and bayous, but can also be found in coastal marshes. The Site does not provide habitat to support this species. Development activities on the Site will "Not Affect" the Alligator snapping turtle.

Louisiana Pine Snake (*Pituophis ruthveni*) – A candidate for listing by the FWS and not listed by the State, this snake is pale tan with a row of large black or brown blotches down the back and a smaller series on either side. The underside is whitish with obscure brown spotting. The tip of the snout is pointed and the snake's scales are keeled and in 27 to 33 rows. This species is typical of sandy, well drained soils, often associated with open pine forests and xeric sandhills with a well developed grassy understory. Although not protected by either state or federal law at this time, suitable habitat does not exist on Site to support this species. Development activities on the site will "Not Affect" the Louisiana pine snake.

Southern Redback Salamander (*Plethodon serratus*) – Listed only by the State as prohibited from possession or harvest, the Southern redback salamander is thin and dark with a reddish, orange, saw-toothed stripe along its top. The underside and the lower sides consist of light and gray mottling. This species is typically found in wet forests near rocks,

limbs, logs and leaves which it uses to hide from predators. Necessary habitat for this species is not present on the Site. No evidence of nesting, foraging or individual species was documented during the site review. Development activities on the site will "Not Affect" the Southern redback salamander.

4. JURISDICTIONAL WETLANDS AND OTHER WATERS

4.1 US Army Corps of Engineers

Technical guidelines outlined in the US Army Corps of Engineers Wetlands Delineation Manual (1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0) were applied in the field for determining the presence and location of jurisdictional wetlands and waters on and near the Site.

Section 404 of the Clean Water Act (33 USC 1344) requires authorization from the Secretary of the Army, acting through the Corps of Engineers, for the discharge of dredged or fill material into all waters of the United States, including wetlands. Discharges of fill material generally include, without limitation: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; dams and dikes; artificial islands; property protection or reclamation devices such as riprap, groins, seawalls, breakwaters, and revetments; beach nourishment; levees; fill for intake and outfall pipes and sub-aqueous utility lines; fill associated with the creation of ponds; and any other work involving the discharge of fill or dredged material. A CE is required whether the work is permanent or temporary.

The basic premise of the dredge and fill program is to ensure that no discharge of dredged or fill material may be permitted if: (1) a practicable alternative exists that is less damaging to the aquatic environment or (2) the nation's waters would be significantly degraded. What this implies is a Section 404 permit application must reflect that to the extent practicable, the following below sequential review has been met:

1. Reasonably avoided all wetland impacts
2. Minimized potential impacts on wetlands and
3. Provide compensation for any remaining unavoidable impacts

4.2 Jurisdictional Summary

Jurisdictional evaluation of the entire Site revealed a regulated forested wetland with a significant nexus to a Relatively Permanent Water (Red River). The jurisdictional area consists of approximately 3.2 acres of disturbed, low quality wetlands that are densely

overgrown by invasive exotic species. Soils underlying this system, albeit disturbed, maintain hydric soil conditions through a long hydro period that extends into the dry season. A dark matrix with a Munsell chroma of less than 2 and numerous concentrations of redox formations on living pore linings was clearly evident. Relic redox concentrations were present throughout the matrix and dismissed, however, significant contemporary diffuse redox boundaries were present near the surface with and without living root channels.

Jurisdictional analysis of the maintained pasture specifically targeted several "wet" signatures on available historic aerials. Due to the nature and thickness of the fine sandy fill material above the pre-existing natural grade, hydric soil genesis cannot occur nor could it be maintained. Upon further examination of the "wet" signatures, a clear dominance of upland plant species occurs. The contrasting mottling that signifies a change in the pasture is not due to moisture but from nutrient poor soils that have stressed the Bermuda turf and have, in response to those xeric conditions, turned a shade of brown. This is further supported by Bermuda and Bahia exhibiting vigorous growth in the upland swales. The swales are underlain by the same sandy material; however, they have a slightly longer hydro-period and concentrate fine materials and nutrients from overland flow. As the jurisdictional map illustrates in Figure 3, uplands extend beyond the maintained pasture and into the forested portion of the Site. Jurisdictional criteria coincide with a fairly consistent elevation near the toe of the slope. This steep slope of the spoiled dredge sand can be identified on the topographic map in Figure 4. A digital elevation model (DEM) in Figure 5 uses shading to represent similar elevation levels for visual comparison. Due to the disturbed nature of the entire site, review of NRCS soils data did not provide an in situ representation of the current soil conditions. Therefore, this data was only used to understand the pre-existing soil conditions prior to the placement of the dredged material.

5. SUMMARY AND CONCLUSIONS

Extensive review and survey reconnaissance of the Site revealed that it is unsuitable for any State or Federal listed animal species. The disturbed nature and habitat makeup of the Site and the project area are not conducive for listed species nesting habitat. Development activities occurring on the 37.2 acres will "Not Affect" any species currently listed as threatened or endangered. The overall developed nature of the project area and the Site's disturbed nature are not conducive to supporting listed plant and animal species. Of the state and federally listed animal species, no occurrences are documented for the project Site. Although their future absence from the site cannot be guaranteed, the likelihood is exceedingly low.

A jurisdictional feature meeting Section 404 wetland criteria was identified and delineated in the north end of the Site. It occupies approximately 3.2 acres and is located adjacent to the river. Dredge or fill activities waterward of the jurisdictional limits will require CE permitting review prior to conducting such activities.

Based on the information gathered during the performance of the this Environmental Assessment, it is my best professional opinion that the Alexandria Port Authority's expansion plans for this 37.2 acre Site will neither affect state or federally listed species nor provide negative consequences to the environment.

Prepared by:

Patrick J. Imhof

Patrick Imhof
Environmental Scientist

September 27, 2013
Date

6. REFERENCES

Field Guide to the Rare Plants of Florida
by Linda G. Chafin, Botanist with Jean C. Putnam Hancock, Botanical Illustrator and Gil Nelson, Ph.D., Graphic Designer and Chief Photographer

FWS Integrated Wildlife Habitat Ranking System 2009

FWS Critical Habitat Mapper, Louisiana Data layer

Godfrey Robert K. Aquatic and wetland plants of southeastern United States: Dicotyledons University of Georgia Press, Athens, GA 30602 1981

Godfrey Robert K. Aquatic and wetland plants of southeastern United States: Monocotyledons University of Georgia Press, Athens, GA 30602 1979

Louisiana Department of Wildlife and Fisheries, Natural Heritage Program

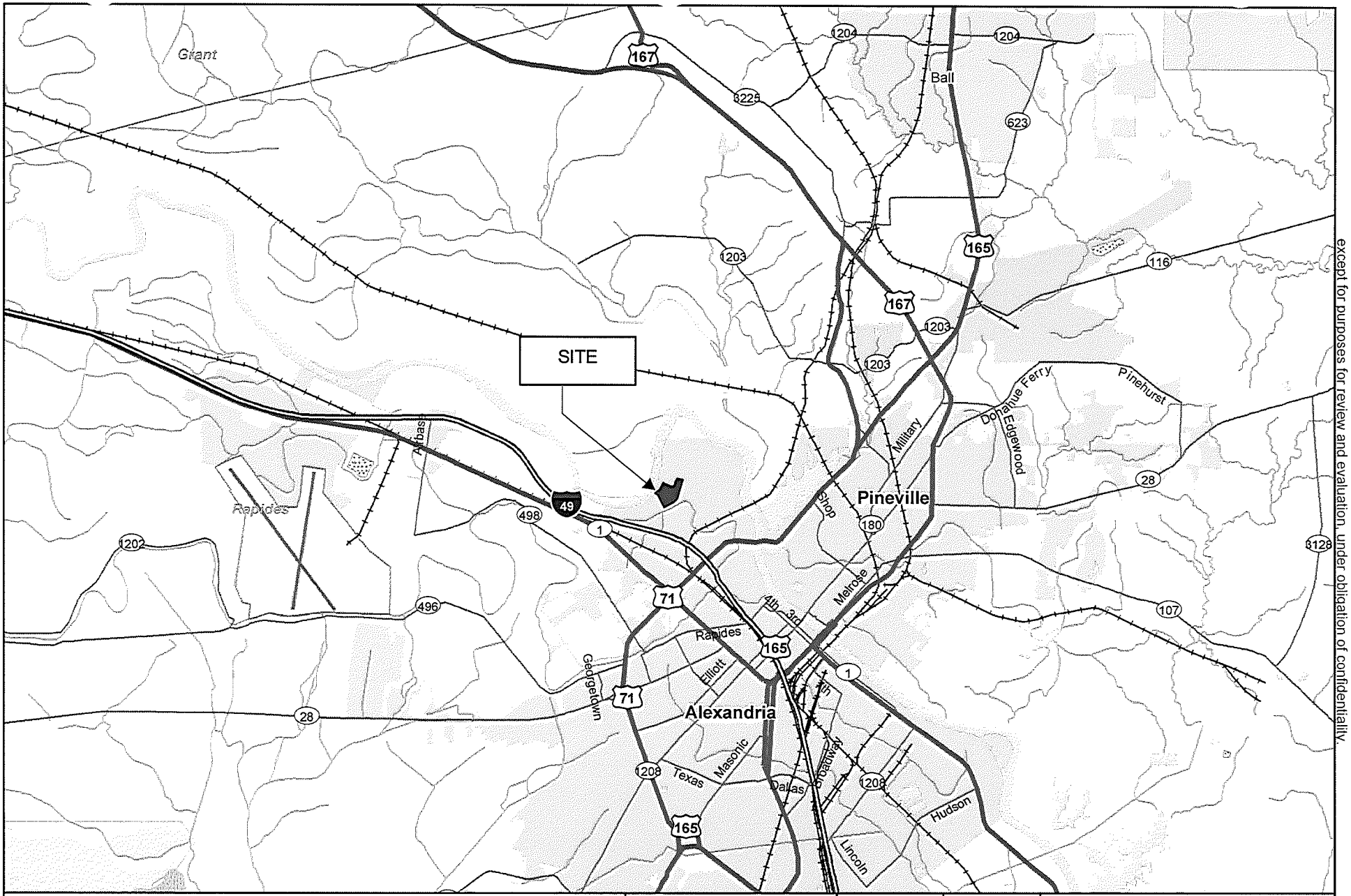
Nature Serve Website

U.S. Department of Agriculture aerial photographs

U.S. Department of Agriculture, Natural Resource Conservation Services: Soil Survey of Rapides Parish, 1981

U.S. Geological Survey, Alexandria Topographical Quadrangle. Revised 1983.

FIGURES



ALEXANDRIA PORT AUTHORITY
L.E.D. CERTIFICATION
37.2 ACRE TRACT
ALEXANDRIA, LOUISIANA

BOSSO IMHOF
ENVIRONMENTAL SCIENCES, INC.
1300 West Government Street
Pensacola, FL 32503 (850)434-1935

FIGURE 1

LOCATION MAP

N
W E
S

ENVIRONMENTAL ASSESSMENT

DRAWN BY: PJI | SCALE: 1:100,000

7,700 3,850 0 7,700 Feet

ALEXANDRIA PORT AUTHORITY
L.E.D. CERTIFICATION
37.2 ACRE TRACT
ALEXANDRIA, LOUISIANA

Legend

Site

BOSSO IMHOF
ENVIRONMENTAL SCIENCES, INC.
1300 West Government Street
Pensacola, FL 32503 (850) 434-1935

FIGURE 2

2010 USDA AERIAL

N
W E
S

ENVIRONMENTAL ASSESSMENT

DRAWN BY: PJI | SCALE: 1:5,000

330 165 0 330 Feet

ALEXANDRIA PORT AUTHORITY
L.E.D. CERTIFICATION
37.2 ACRE TRACT
ALEXANDRIA, LOUISIANA

Legend

- CE JURISDICTION
- Site

BOSSO IMHOF
ENVIRONMENTAL SCIENCES, INC.
1300 West Government Street
Pensacola, FL 32503 (850)434-1935

FIGURE 3

**2010 USDA AERIAL
CE JURISDICTION**

N
W E
S

ENVIRONMENTAL ASSESSMENT

DRAWN BY: PJI | SCALE: 1:5,000

330 165 0 330 Feet

ALEXANDRIA PORT AUTHORITY
L.E.D. CERTIFICATION
37.2 ACRE TRACT
ALEXANDRIA, LOUISIANA

Legend

Site

BOSSO IMHOF
ENVIRONMENTAL SCIENCES, INC.
1300 West Government Street
Pensacola, FL 32503 (850)434-1935

FIGURE 4

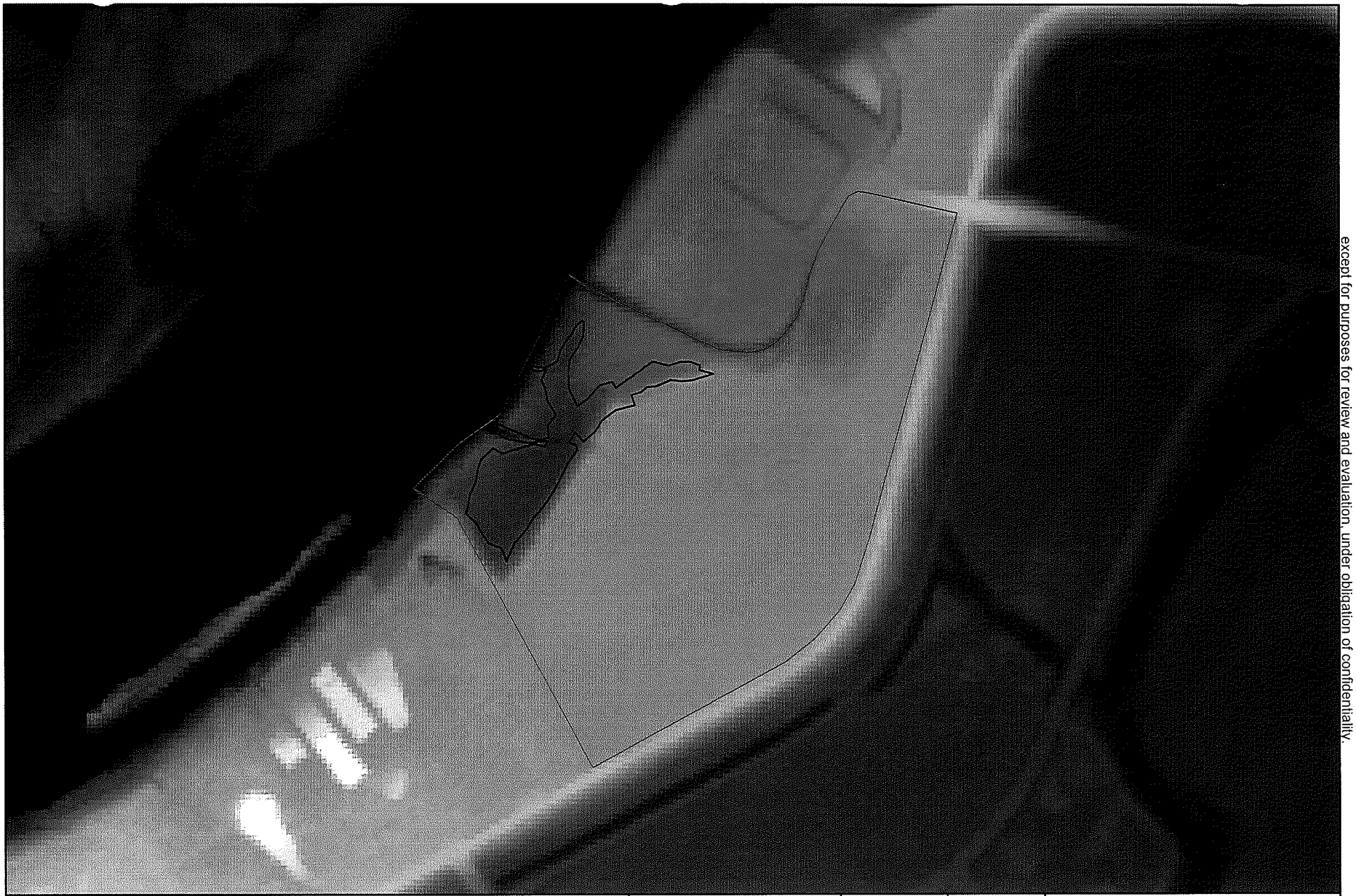
LIDAR ELEV. 2' CONTOURS

N
W E
S

ENVIRONMENTAL ASSESSMENT

DRAWN BY: PJI | SCALE: 1:5,000

330 165 0 330 Feet



ALEXANDRIA PORT AUTHORITY
L.E.D. CERTIFICATION
37.2 ACRE TRACT
ALEXANDRIA, LOUISIANA

Legend

- Site
- CE JURISDICTION

BOSSO IMHOF
ENVIRONMENTAL SCIENCES, INC.
1300 West Government Street
Pensacola, FL 32503 (850)434-1935

FIGURE 5.

DIGITAL ELEV. MODEL

N
W E
S

ENVIRONMENTAL ASSESSMENT

DRAWN BY: PJI | SCALE: 1:5,000

330 165 0 330 Feet

ATTACHMENT 1:

LDWF Data Base Search Report

BOBBY JINDAL
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE AND FISHERIES
OFFICE OF WILDLIFE

ROBERT J. BARHAM
SECRETARY
JIMMY L. ANTHONY
ASSISTANT SECRETARY

Date	September 6, 2013
Name	Michael Rogers
Company	Bosso-Imhof Environmental Sciences
Street Address	1300 West Government St.
City, State, Zip	Pensacola, FL 32502
Project	Threatened and Endangered Species Review for a Port Expansion on the Red River
Project ID	0
Invoice Number	13090601

Personnel of the Habitat Section of the Coastal & Nongame Resources Division have reviewed the preliminary data for the captioned project.

Our records indicate blue sucker (Cycleptus meridionalis) occurs within waterbodies of the proposed project area. This species has an S3 state rank and is considered rare in Louisiana. Blue sucker is usually found in channels and flowing pools with moderate currents of 1.0-2.6 m/sec. This species may also be found in some impoundments. Cited causes of decline include depletion of surface water, poor water quality stemming from sewage effluent and agricultural runoff, interruption of migrations by dams, and stranding in irrigation canals. If you have any questions, please contact Beau Gregory at 337-491-2576.

Our records indicate bluehead shiner (Pteronotropis hubbsi) also occurs within waterbodies of the proposed project area. This species has an S2 state rank and is considered imperiled in Louisiana. Bluehead shiner is usually found in small to medium-sized pools, slow moving streams and oxbow lakes with mud bottoms. Threats to this species include draining, filling, farming or flooding of backwater swamp habitat. If you have any questions, please contact Beau Gregory at 337-491-2576.

The LNHP database indicates the presence of Interior Least Tern in the project vicinity. The Interior Least Tern is listed as federally endangered under the Endangered Species Act and is listed as critically imperiled in the state of Louisiana with an S1B rank. Interior Least Tern breed along the northern Mississippi River and along the Red River with nesting beginning in late April and ending in August. Critical habitat includes dry, exposed sandbars and favorable river flow that support forage fish supply. The Interior Least Tern decline has been primarily due to extensive water management projects and increased use of beaches and sandbars. Work activities should occur outside of the breeding season and should minimize the impacts on Interior Least Tern habitat. Contact Brigette Firmin with the US Fish and Wildlife Service at 337-291-3108 to coordinate activities.

After careful review of our database, no other 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,

Amity Bass, Coordinator
Natural Heritage Program

ATTACHMENT 2:

CE Routine Wetland Data Sheets

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Alexandria Port **City/County:** Rapides **Sampling Date:** 13-Aug-13

Applicant/Owner: Alexandria Port Authority **State:** LA **Sampling Point:** 1

Investigator(s): Pat Iimhof **Section, Township, Range:** S 12 T 4N R 1W

Landform (hillslope, terrace, etc.): Terrace **Local relief (concave, convex, none):** flat **Slope:** 0.0 % / 0.0 °

Subregion (LRR or MLRA): LRR O **Lat.:** 31 20' 04.11" **Long.:** 92 28' 18.74" **Datum:** WGS 84

Soil Map Unit Name: Roxana very fine sandy loam, occasionally flooded **NWI classification:**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ○	No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Nearly level man made terrace adjacent to the Red River. Site underlain by river dredged spoil from past ACOE dredging projects. Soils and hydrology support drought tolorant species.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15) (LRR U)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of 2 required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Sphagnum moss (D8) (LRR T, U)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):
Water Table Present?	Yes ○	No ◉	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Elevated spil cell from ACOE river dredging in the 80's and 90's.

VEGETATION (Five/Four Strata) - Use scientific names of plants.

Sampling Point: 1

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
50% of Total Cover: 0	20% of Total Cover: 0	0 = **Total Cover**	
Sapling or Sapling/Shrub Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
50% of Total Cover: 0	20% of Total Cover: 0	0 = **Total Cover**	
Shrub Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
50% of Total Cover: 0	20% of Total Cover: 0	0 = **Total Cover**	
Herb Stratum (Plot size: 50' radius)			
1. Cynodon dactylon	30	☑ 44.8%	FACU
2. Diodia teres	30	☑ 44.8%	FACU
3. Paspalum notatum	5	☐ 7.5%	FACU
4. Poa compressa	1	☐ 1.5%	FACU
5. Helenium amarum	1	☐ 1.5%	FACU
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
50% of Total Cover: 33.5	20% of Total Cover: 13.4	67 = **Total Cover**	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
50% of Total Cover: 0	20% of Total Cover: 0	0 = **Total Cover**	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	67	x 4 =	268
UPL species	0	x 5 =	0
Column Totals:	67 (A)		268 (B)

Prevalence Index = B/A = 4.000

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☐ **2 - Dominance Test is > 50%**
- ☐ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Definition of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: (If observed, list morphological adaptations below).

Maintained by mowing pasture. Poor Joe weed shows signs of mortality within several colonies. No wetland vegetation present.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type [1]	Redox Features Loc[2]	Texture	Remarks
0-6	7.5YR 5/4	100%					Sand	Brown
6-12	7.5YR 6/4	100%					Fine Sand	Light brown

[1]Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) (LRR P, T, U)
- ☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)
- ☐ Muck Presence (A8) (LRR U)
- ☐ 1 cm Muck (A9) (LRR P, T)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) (MLRA 150A)
- ☐ Sandy Muck Mineral (S1) (LRR O, S)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR P, S, T, U)
- ☐ Polyvalue Below Surface (S8) (LRR S, T, U)
- ☐ Thin Dark Surface (S9) (LRR S, T, U)
- ☐ Loamy Mucky Mineral (F1) (LRR O)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) (LRR U)
- ☐ Depleted Ochric (F11) (MLRA 151)
- ☐ Iron-Manganese Masses (F12) (LRR O, P, T)
- ☐ Umbric Surface (F13) (LRR P, T, U)
- ☐ Delta Ochric (F17) (MLRA 151)
- ☐ Reduced Vertic (F18) (MLRA 150A, 150B)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149A)
- ☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (LRR O)
- ☐ 2 cm Muck (A10) (LRR S)
- ☐ Reduced Vertic (F18) (outside MLRA 150A,B)
- ☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
- ☐ Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Sandy spoil material.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Alexandria Port **City/County:** Rapides **Sampling Date:** 13-Aug-13

Applicant/Owner: Alexandria Port Authority **State:** LA **Sampling Point:** 2

Investigator(s): Pat Ilmhof **Section, Township, Range:** S 12 T 4N R 1W

Landform (hillslope, terrace, etc.): Terrace **Local relief (concave, convex, none):** none **Slope:** 0.0 % / 0.0 °

Subregion (LRR or MLRA): LRR O **Lat.:** 31 20' 01.15" **Long.:** 92 28' 17.58" **Datum:** WGS 84

Soil Map Unit Name: Coushatta silty clay loam, 0 to 1 percent slopes **NWI classification:**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ○ No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉	
Wetland Hydrology Present?	Yes ○ No ◉	

Remarks:
Upland Spoil cell created from river dredging operations. Well maintained upland turf on well drained sandy soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15) (LRR U)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of 2 required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Sphagnum moss (D8) (LRR T, U)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):
Water Table Present?	Yes ○	No ◉	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Well drained, permeable sandy soils.

VEGETATION (Five/Four Strata) - Use scientific names of plants. **Sampling Point:** 2

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
50% of Total Cover: 0	20% of Total Cover: 0	0 = **Total Cover**	
Sapling or Sapling/Shrub Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
50% of Total Cover: 0	20% of Total Cover: 0	0 = **Total Cover**	
Shrub Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
50% of Total Cover: 0	20% of Total Cover: 0	0 = **Total Cover**	
Herb Stratum (Plot size: 50' radius)			
1. Paspalum notatum	100	☑ 94.3%	FACU
2. Mimosa strigillosa	3	☐ 2.8%	FAC
3. Cyperus retrorsus	1	☐ 0.9%	FACU
4. Axonopus fissifolius	1	☐ 0.9%	FACW
5. Helenium amarum	1	☐ 0.9%	FACU
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
50% of Total Cover: 53	20% of Total Cover: 21.2	106 = **Total Cover**	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
50% of Total Cover: 0	20% of Total Cover: 0	0 = **Total Cover**	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	1	x 2 =	2	
FAC species	3	x 3 =	9	
FACU species	102	x 4 =	408	
UPL species	0	x 5 =	0	
Column Totals:	106 (A)		419	(B)

Prevalence Index = B/A = 3.953

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☐ **2 - Dominance Test is > 50%**
- ☐ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Definition of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: (If observed, list morphological adaptations below).

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type [1]	Loc[2]	Texture	Remarks
0-2	7.5YR	6/4	100%					Sand	Light brown
2-10	7.5YR	5/3	100%					Sand	Brown

[1]Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) (LRR P, T, U)
- ☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)
- ☐ Muck Presence (A8) (LRR U)
- ☐ 1 cm Muck (A9) (LRR P, T)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) (MLRA 150A)
- ☐ Sandy Muck Mineral (S1) (LRR O, S)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR P, S, T, U)
- ☐ Polyvalue Below Surface (S8) (LRR S, T, U)
- ☐ Thin Dark Surface (S9) (LRR S, T, U)
- ☐ Loamy Mucky Mineral (F1) (LRR O)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) (LRR U)
- ☐ Depleted Ochric (F11) (MLRA 151)
- ☐ Iron-Manganese Masses (F12) (LRR O, P, T)
- ☐ Umbric Surface (F13) (LRR P, T, U)
- ☐ Delta Ochric (F17) (MLRA 151)
- ☐ Reduced Vertic (F18) (MLRA 150A, 150B)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149A)
- ☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (LRR O)
- ☐ 2 cm Muck (A10) (LRR S)
- ☐ Reduced Vertic (F18) (outside MLRA 150A,B)
- ☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
- ☐ Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Very permeable, well drained soil.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Alexandria Port **City/County:** Rapides **Sampling Date:** 13-Aug-13

Applicant/Owner: Alexandria Port Authority **State:** LA **Sampling Point:** 3

Investigator(s): Pat Iimhof **Section, Township, Range:** S 12 T 4N R 1W

Landform (hillslope, terrace, etc.): **Local relief (concave, convex, none):** **Slope:** 0.0 % / 0.0 °

Subregion (LRR or MLRA): LRR O **Lat.:** 31 20' 01.08" **Long.:** 92 28' 13.99" **Datum:** WGS 84

Soil Map Unit Name: Coushatta silty clay loam, 0 to 1 percent slopes **NWI classification:**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ○	No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15) (LRR U)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of 2 required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Sphagnum moss (D8) (LRR T, U)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):
Water Table Present?	Yes ○	No ◉	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five/Four Strata) - Use scientific names of plants.

Sampling Point: 3

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
50% of Total Cover: 0	20% of Total Cover: 0	0 = **Total Cover**	
Sapling or Sapling/Shrub Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
50% of Total Cover: 0	20% of Total Cover: 0	0 = **Total Cover**	
Shrub Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
50% of Total Cover: 0	20% of Total Cover: 0	0 = **Total Cover**	
Herb Stratum (Plot size:)			
1. Diodia teres	60	☑ 62.5%	FACU
2. Paspalum notatum	25	☑ 26.0%	FACU
3. Cynodon dactylon	10	☐ 10.4%	FACU
4. Poa compressa	1	☐ 1.0%	FACU
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
50% of Total Cover: 48	20% of Total Cover: 19.2	96 = **Total Cover**	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
50% of Total Cover: 0	20% of Total Cover: 0	0 = **Total Cover**	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	96	x 4 =	384
UPL species	0	x 5 =	0
Column Totals:	96 (A)		384 (B)

Prevalence Index = B/A = 4.000

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☐ **2 - Dominance Test is > 50%**
- ☐ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Definition of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: (If observed, list morphological adaptations below).

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type [1]	Loc[2]	Texture	Remarks
0-2	7.5YR	5/4	100%					Sand	Brown
2-12	7.5YR	6/4	100%					Sand	Light brown

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) (LRR P, T, U)
- ☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)
- ☐ Muck Presence (A8) (LRR U)
- ☐ 1 cm Muck (A9) (LRR P, T)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) (MLRA 150A)
- ☐ Sandy Muck Mineral (S1) (LRR O, S)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR P, S, T, U)
- ☐ Polyvalue Below Surface (S8) (LRR S, T, U)
- ☐ Thin Dark Surface (S9) (LRR S, T, U)
- ☐ Loamy Mucky Mineral (F1) (LRR O)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) (LRR U)
- ☐ Depleted Ochric (F11) (MLRA 151)
- ☐ Iron-Manganese Masses (F12) (LRR O, P, T)
- ☐ Umbric Surface (F13) (LRR P, T, U)
- ☐ Delta Ochric (F17) (MLRA 151)
- ☐ Reduced Vertic (F18) (MLRA 150A, 150B)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149A)
- ☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (LRR O)
- ☐ 2 cm Muck (A10) (LRR S)
- ☐ Reduced Vertic (F18) (outside MLRA 150A,B)
- ☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
- ☐ Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Well drained sandy soil.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Alexandria Port **City/County:** Rapides **Sampling Date:** 13-Aug-13

Applicant/Owner: Alexandria Port Authority **State:** LA **Sampling Point:** 4

Investigator(s): Pat Iimhof **Section, Township, Range:** S 12 T 4N R 1W

Landform (hillslope, terrace, etc.): Upland swale **Local relief (concave, convex, none):** none **Slope:** 3.0 % / 1.7 °

Subregion (LRR or MLRA): LRR O **Lat.:** 31 20' 09.05" **Long.:** 92 28' 15.93" **Datum:** WGS 84

Soil Map Unit Name: Roxana very fine sandy loam, occasionally flooded **NWI classification:**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ○	No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Upland drainage swale with 6:1 slope. Very sandy soil carpeted with turf grasses.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15) (LRR U)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of 2 required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Sphagnum moss (D8) (LRR T, U)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):
Water Table Present?	Yes ○	No ◉	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Soil pit to 24" and no saturation present.

VEGETATION (Five/Four Strata) – Use scientific names of plants. **Sampling Point:** 4

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
50% of Total Cover: 0	20% of Total Cover: 0	0	= Total Cover	
Sapling or Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
50% of Total Cover: 0	20% of Total Cover: 0	0	= Total Cover	
Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
50% of Total Cover: 0	20% of Total Cover: 0	0	= Total Cover	
Herb Stratum (Plot size: 50' radius)				
1. Diodia teres	50	☑	47.2%	FACU
2. Paspalum notatum	25	☑	23.6%	FACU
3. Cynodon dactylon	20	☐	18.9%	FACU
4. Mimosa strigillosa	5	☐	4.7%	FAC
5. Ambrosia artemisiifolia	2	☐	1.9%	FACU
6. Cyperus retrorsus	1	☐	0.9%	FACU
7. Sporobolus indicus	1	☐	0.9%	FACU
8. Paspalum urvillei	1	☐	0.9%	FAC
9. Rubus trivialis	1	☐	0.9%	FACU
10.	0	☐	0.0%	
11.	0	☐	0.0%	
12.	0	☐	0.0%	
50% of Total Cover: 53	20% of Total Cover: 21.2	106	= Total Cover	
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
50% of Total Cover: 0	20% of Total Cover: 0	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	6	x 3 =	18	
FACU species	100	x 4 =	400	
UPL species	0	x 5 =	0	
Column Totals:	106 (A)		418	(B)

Prevalence Index = B/A = 3.943

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☐ **2 - Dominance Test is > 50%**
- ☐ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Definition of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: (If observed, list morphological adaptations below).

Upland plant species inside and adjacent to drainage swale.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type [1]	Redox Features Loc[2]	Texture	Remarks
0-2	7.5YR 5/4	100%					Sand	Brown
2-12	7.5YR 6/3	100%					Sand	Light brown

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) (LRR P, T, U)
- ☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)
- ☐ Muck Presence (A8) (LRR U)
- ☐ 1 cm Muck (A9) (LRR P, T)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) (MLRA 150A)
- ☐ Sandy Muck Mineral (S1) (LRR O, S)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR P, S, T, U)
- ☐ Polyvalue Below Surface (S8) (LRR S, T, U)
- ☐ Thin Dark Surface (S9) (LRR S, T, U)
- ☐ Loamy Mucky Mineral (F1) (LRR O)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) (LRR U)
- ☐ Depleted Ochric (F11) (MLRA 151)
- ☐ Iron-Manganese Masses (F12) (LRR O, P, T)
- ☐ Umbric Surface (F13) (LRR P, T, U)
- ☐ Delta Ochric (F17) (MLRA 151)
- ☐ Reduced Vertic (F18) (MLRA 150A, 150B)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149A)
- ☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (LRR O)
- ☐ 2 cm Muck (A10) (LRR S)
- ☐ Reduced Vertic (F18) (outside MLRA 150A,B)
- ☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
- ☐ Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Very permeable sand inside of drainage swale that is dominated by upland pasture grasses. Water runoff into swale does not appear to attenuate for a period long enough to alter the vegetation makeup from upland to wetland. Hydric soil characteristics and indicators are not maintained by current hydrologic regime.

ATTACHMENT 3:

Site Photographs

Site Photographs

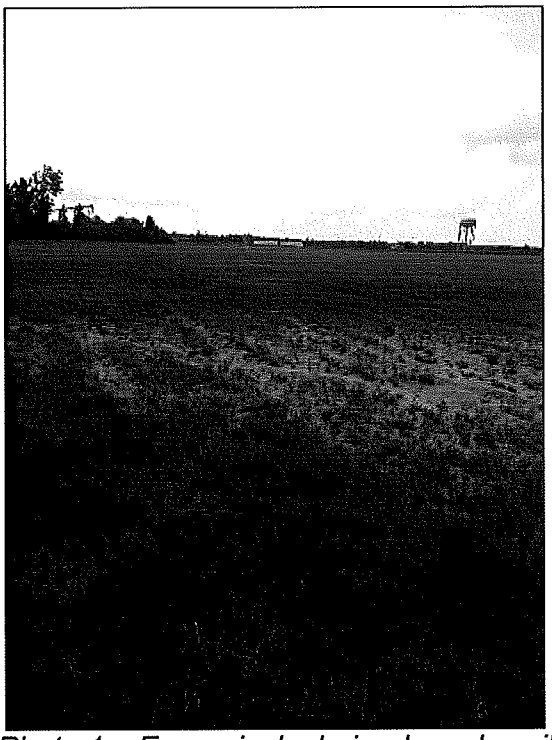


Photo 1 – Excessively drained sandy soil with upland vegetation.

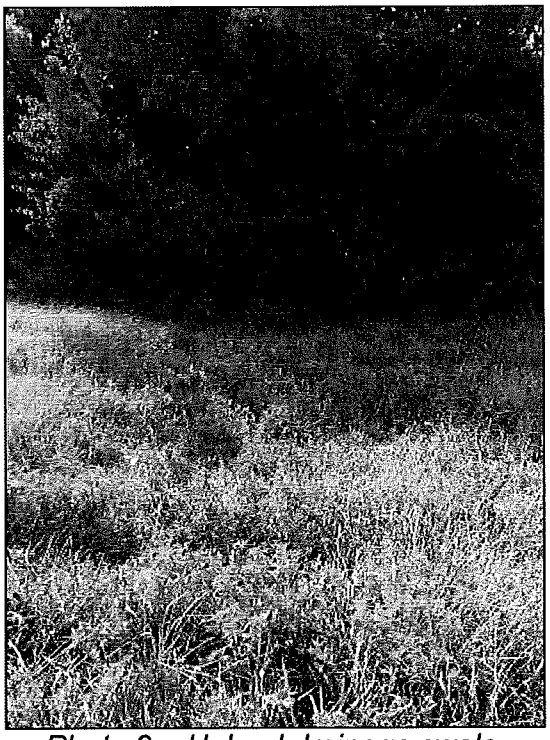


Photo 2 – Upland drainage swale.

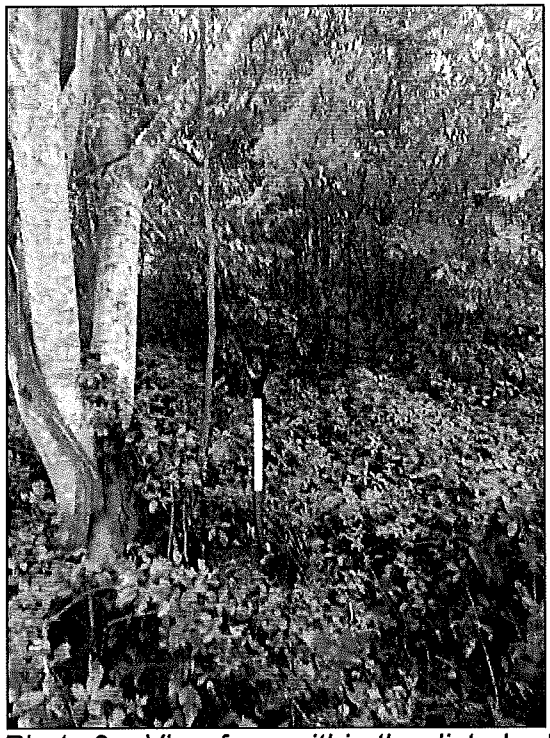


Photo 3 – View from within the disturbed wetland facing the uplands.

Photo 4 – Typical upland soil profile.

staging areas, of the facility would include disturbance within a 27-acre area as well as associated infrastructure within existing rights of way as shown on **Attachment 3.**
Please note the Vicinity Maps in Attachments 1 and 2 identify the project site's general vicinity; the project itself excludes the 10 acre portion located directly adjacent to the Red River (which is shown as encompassed in the red project area outline in these maps). The map shown in Attachment 3 indicates the proposals leased area and limits of disturbance, which excludes this 10 acre area adjacent to the river.

The proposed site is located within the central portion of Louisiana at Mile 90 on the Red River. It is positioned in Sections 11 and 12, Township 4-North, Range 1-West with a central location near 92°28'13.484"W longitude and 31°20'6.958"N latitude (NAD 1983 UTM Zone 15N) (Attachment 1 and 2). The Site is bound to the north by a 10 acre plot of land (owned by the port) adjacent to the Red River, to the east by Diamond B Construction Company, to the west by the port and to the south by the flood control levee. The site and surrounding area of the Port are zoned General Industrial by the city of Alexandria.

The existing land use on the 27 acre parcel is vacant mowed pastureland. There is a 3.2 acre forested wetland located within the adjacent 10 acre forested parcel, north and adjacent to the projects 27 acre parcel. Dredged fill material was placed on the site by the US Army Corps of Engineers (USACE) as part of the Philip Bayou Realignment Project in the 1990's, thus altering the surface soils at that time. The site has not been developed for use other than mowed pasture since the placement of dredged material. The project will not convert any existing wetlands, critical habitat or sensitive areas. There are no highly erodible soils within the project boundary. The NRCS soil survey indicates that most of the site is covered by a very fine sandy loam, with pockets of silty clay loams or clay soils at the eastern edge of the site.

All process waters would be leaving the site via conveyance to existing City of Alexandria sewer facilities (at the tie in sewer manholes along the River Port Road). The project does not propose discharge to the adjacent Red River.

This facility would be receiving pine wood chips, mainly from commercial pine plantation feedstock suppliers within an approximate 150 mile radius in Louisiana. It is anticipated that Cool Planet's commercial plant will require approximately 350,000 tons per year of green wood chips. This would equate to approximately 259 trucks per week for biomass delivery. Fuel Product would be transported offsite via barges and/or trucks and utilize the existing barge and truck infrastructure at the port. See Attachment 3 for proposed product line to existing barge facility. In addition, the facility will be producing a Biochar byproduct in quantities of greater than 25,000 tons per year and Ash in the amount of approximately 2,200 tons per year which would be shipped via rail or truck.

Construction Timeline
The expected project lifespan is a minimum of 20 years. Construction of the facility is planned to begin as early as Fall/Winter of 2014/2015 with expected startup of the facility in late 2015.

Mitigation Measures

The proposal will enforce state required erosion control measures to capture stormwater and sediments before they enter the Red River or its tributaries. Use of the best practices outlined in the SWPPP will mitigate potential erosion and water quality impacts. The existing forested wetlands located on the adjacent 10 acre parcel are not proposed for impact for this proposal.

RBS Conclusions and Determination

Based on a review of the existing conditions at the site, and the proposed construction and operation activities, RBS has determined that the proposal **may affect but is not likely to affect** the Endangered Interior Least Tern and the Endangered Red-cockaded Woodpecker. The areas for disturbance for the site are limited to pastureland which was developed from dredged River materials and minor disturbance within existing road rights of way for tie in to existing infrastructure. There are no existing trees within the limits of disturbance for the proposal.

The Interior Least Tern is listed as federally endangered and critically imperiled in Louisiana (S1B rank). These species breed along the North Mississippi River and Red River with nesting beginning in late April through August. Their critical habitat includes dry, exposed sand bars, and favorable river flow that support forage fish supply. Since the proposal and site does not contain or propose impact to dry, exposed sand bars adjacent to the Red River, RBS determined that the proposal is not likely to adversely affect this listed species.

The Endangered Red-cockaded Woodpecker, having no listed habitat, could occur anywhere in LA. Since the site is in pastureland, however, any impacts from the proposed construction should not adversely effect this species.

Since the proposal does not propose discharge or outflow to the adjacent Red River or its tributaries or wetlands, RBS has determined that the proposal would have **"no effect"** on the Endangered Pallid Sturgeon since the proposal has no water dependent construction, outflow, or discharge. Other than minor stormwater management during construction, which will be mitigated by adherence to the Stormwater Pollution Prevention Plan, no impacts should occur to the Red River or its tributaries or adjacent wetlands. The State Department of Wildlife and Fisheries also recognizes the state listed Blue Sucker (Ranked S3) and the Bluehead Shinner) (Ranked S2 imperiled) (**Attachment 4**). RBS has determined that the proposal would similarly have no effect to these water dependent species.

Please feel free to contact me with any comments or questions at juliet.bochicchio@wdc.usda.gov or at 202.205.8242. Thank you for forwarding all correspondence to me via email or to my attention at the address above.

Sincerely,

Juliet Bochicchio
Federal Preservation Officer
Program Support Staff, RBS

cc: Bret Turner, Silicon Valley Bank
Wes Bolsen, Cool Planet Louisiana, LLC

Attachments:
1) General vicinity map
2) Aerial Photograph with Project Location
3) Limits of Disturbance
4) Letter from the Department of Wildlife and Fisheries dated September 6, 2013

Bochicchio, Juliet - RD, Washington, DC

From: Bochicchio, Juliet - RD, Washington, DC
Sent: Saturday, March 22, 2014 11:14 AM
To: USFWS LA (Lafayette@fws.gov)
Cc: Wesley Bolsen (Wesley.Bolsen@Coolplanet.com); Juliette MacKay; Hubbell, Todd - RD, Washington, DC; Bret Turner; Hicks, Jared - RD, Alexandria, LA
Subject: Cool Planet Determination of May Affect/Not Likely to Affect USFWS
Attachments: USFWS Determination CoolPlanent 032114.pdf; Attach 1 and 2.pdf; Attach 3 Cool Planet Limits of Distrubance.pdf; Attach 4 090613 wildlife.pdf

Dear Mr. Weller,

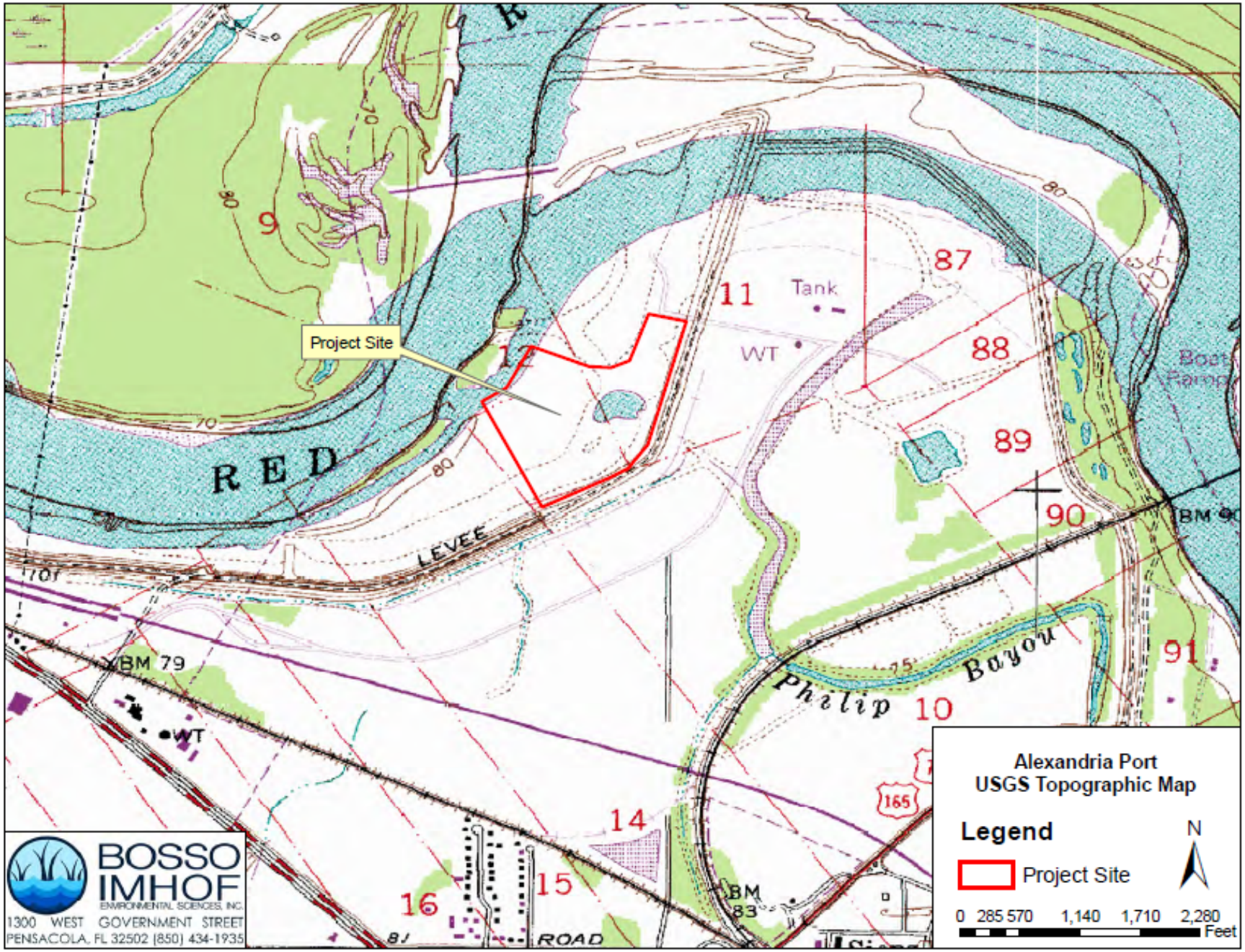
Through submission of this email, and a hard copy to follow, the USDA Rural Business-Cooperative Service (RBS) requests a letter of concurrence from the USFWS with respect to our determination of "**may affect/not likely to affect**" for the Endangered Interior Least Tern and the Red-cockaded Woodpecker and a **"no effect"** determination for the Endangered Pallid Sturgeon, for the proposed Cool Planet woody biomass to renewable fuels conversion facility proposed in Rapides Parish, LA. This request is made under the requirements of Section7 of the Endangered Species Act.

Please find attached determination materials and please do not hesitate to contact me if I can provide additional information.

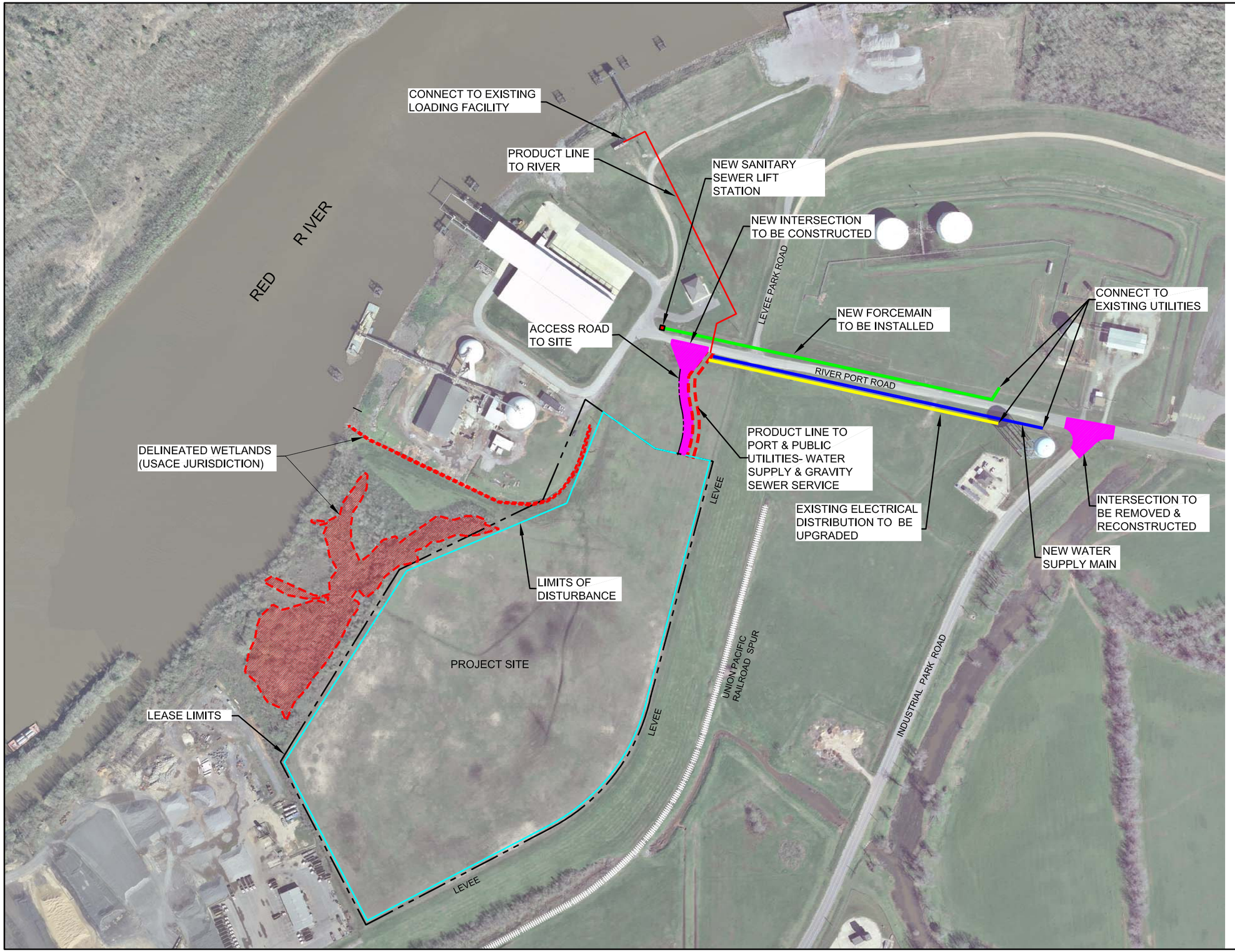
Sincerely,
Juliet Bochicchio

Juliet Cartron Bochicchio | Environmental Protection Specialist
Rural Development
U.S. Department of Agriculture
1400 Independence Ave., S.W. | Washington, D.C. 20250
Phone: 202.205.8242 | Fax 202.690.4335
www.rurdev.usda.gov

"Committed to the future of rural communities"
"Estamos dedicados al futuro de las comunidades rurales"


Project Site
RED
LEVEE
Tank
WT
BM 79
Philip Bayou
ROAD
BM 83
Alexandria Port
USGS Topographic Map
Legend
Project Site
N
0 285 570 1,140 1,710 2,280
Feet
BOSSO IMHOF
ENVIRONMENTAL SCIENCES, INC.
1300 WEST GOVERNMENT STREET
PENSACOLA, FL 32502 (850) 434-1935


Project Site
CITY OF ALEXANDRIA
Alexandria Port
Location Map
Legend
Project Site
N
0 700 1,400 2,800 4,200 5,600
Feet
BOSSO IMHOF
ENVIRONMENTAL SCIENCES, INC.
1300 WEST GOVERNMENT STREET
PENSACOLA, FL 32502 (850) 434-1935



mM&H

Meyer, Meyer, LaCroix & Hixson
Engineers & Land Surveyors
100 Engineer Place, Alexandria, LA 71303
Phone: (318) 448-0888 - Fax: (318) 448-0885

ALEXANDRIA–RUSTON

ALEXANDRIA REGIONAL PORT AUTHORITY

USDA - EXHIBIT

PROJECT NO.	6750
DATE:	MAR. 2014
DESIGNED BY:	MMLH
CHECKED BY:	MMLH
DRAWN BY:	MMLH
CHECKED BY:	MMLH

EXHIBIT

1

BOBBY JINDAL
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE AND FISHERIES
OFFICE OF WILDLIFE

ROBERT J. BARHAM
SECRETARY
JIMMY L. ANTHONY
ASSISTANT SECRETARY

Date	September 6, 2013
Name	Michael Rogers
Company	Bosso-Imhof Environmental Sciences
Street Address	1300 West Government St.
City, State, Zip	Pensacola, FL 32502
Project	Threatened and Endangered Species Review for a Port Expansion on the Red River
Project ID	0
Invoice Number	13090601

Personnel of the Habitat Section of the Coastal & Nongame Resources Division have reviewed the preliminary data for the captioned project.

Our records indicate blue sucker (Cycleptus meridionalis) occurs within waterbodies of the proposed project area. This species has an S3 state rank and is considered rare in Louisiana. Blue sucker is usually found in channels and flowing pools with moderate currents of 1.0-2.6 m/sec. This species may also be found in some impoundments. Cited causes of decline include depletion of surface water, poor water quality stemming from sewage effluent and agricultural runoff, interruption of migrations by dams, and stranding in irrigation canals. If you have any questions, please contact Beau Gregory at 337-491-2576.

Our records indicate bluehead shiner (Pteronotropis hubbsi) also occurs within waterbodies of the proposed project area. This species has an S2 state rank and is considered imperiled in Louisiana. Bluehead shiner is usually found in small to medium-sized pools, slow moving streams and oxbow lakes with mud bottoms. Threats to this species include draining, filling, farming or flooding of backwater swamp habitat. If you have any questions, please contact Beau Gregory at 337-491-2576.

The LNHP database indicates the presence of Interior Least Tern in the project vicinity. The Interior Least Tern is listed as federally endangered under the Endangered Species Act and is listed as critically imperiled in the state of Louisiana with an S1B rank. Interior Least Tern breed along the northern Mississippi River and along the Red River with nesting beginning in late April and ending in August. Critical habitat includes dry, exposed sandbars and favorable river flow that support forage fish supply. The Interior Least Tern decline has been primarily due to extensive water management projects and increased use of beaches and sandbars. Work activities should occur outside of the breeding season and should minimize the impacts on Interior Least Tern habitat. Contact Brigette Firmin with the US Fish and Wildlife Service at 337-291-3108 to coordinate activities.

After careful review of our database, no other 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,

Amity Bass, Coordinator
Natural Heritage Program

Form RD 2006-38
(Rev. 07-07)

Rural Development
Environmental Justice (EJ) and Civil Rights Impact Analysis (CRIA)
Certification

1 . Applicant's name and proposed project description: Cool Planet Biorefinery - new facility on 27 acres within existing industrial park in city of Alexandria's port.

2. Rural Development's loan/grant program/guarantee or other Agency action: 9003 Biorefinery Assistance Program

3. ☑ Attach a map of the proposal's area of effect identifying location or EJ populations, location of the proposal, area of impact or

☑ Attach results of EJ analysis from the Environmental Protection Agency's (EPAs) EnviroMapper with proposed project location and impact footprint delineated.

4. Does the applicant's proposal or Agency action directly, indirectly or cumulatively affect the quality and/or level of services provided to the community?

☐ Yes ☑ No ☐ N/A

5. Is the applicant's proposal or Agency action likely to result in a change in the current land use patterns (types of land use, development densities, etc)?

☐ Yes ☑ No ☐ N/A

6. Does a demographic analysis indicate the applicant's proposal or Agency's action may disproportionately affect a significant minority and/or low-income populations?

☐ Yes ☑ No ☐ N/A

If answer is no, skip to item 12. If answer is yes, continue with items 7 through 12.

7. Identify, describe, and provide location of EJ population _____

8. If a disproportionate adverse affect is expected to impact an EJ population, identify type/level of public outreach implemented. _____

9. Identify disproportionately high and adverse impacts on EJ populations. _____

10. Are adverse impacts appreciably more severe or greater in magnitude than the adverse impacts expected on non-minority/low-income populations?

☐ Yes ☐ No ☐ N/A

11. Are alternatives and/or mitigation required to avoid impacts to EJ populations?

☐ Yes ☐ No ☐ N/A

If yes, describe _____

12. I certify that I have reviewed the appropriate documentation and have determined that:

☑ No major EJ or civil rights impact is likely to result if the proposal is implemented.
☐ A major EJ or civil rights impact is likely to result if the proposal is implemented.

Juliet Bochicchio EPS — Name and Title of Certifying Official

06-17-2014 — Date