



### **EXHIBIT 15 - ENDANGERED SPECIES STUDY**

# ENGLAND INDUSTRIAL DEVELOPMENT DISTRICT ALEXANDRIA, LOUISIANA



### 700± ACRE HEAVY INDUSTRIAL SITE WEST-1 SITE CERTIFICATION PROGRAM

### THREATENED AND ENDANGERED SPECIES STUDY

**NOVEMBER 15, 2012** 

PAN AMERICAN ENGINEERS – ALEXANDRIA, INC. 1717 JACKSON ST. – P.O. BOX 89 ALEXANDRIA, LA 71309 (318) 473-2100 (318) 473-2275 - FAX

Panam@Paealex.Com PAE PROJECT NO. 9599







#### THREATENED AND ENDANGERED SPECIES STUDY

#### 1.1 Proposed Action

The England Economic and Industrial District (EEID), also known as the England Authority, is proposing to develop a  $700\pm$  acre light industrial site. The site will consist of streets, utilities, and other amenities to provide lots and acreage for future industrial purposes. The site is shown in Appendix A.

#### 1.2 Affected Environment

The Endangered Species Act (ESA) [16 U.S.C. 1532 et. seq.] of 1973, as amended, was enacted to provide a program for the preservation of endangered and threatened species and to provide protection for the ecosystem upon which these species depend for their survival. All Federal agencies are required to implement protection programs for designated species and to use their authorities to further the purposes of the act. Responsibility for the identification of a threatened or endangered species and development of recovery plans lies with the Secretary of the Interior and the Secretary of Commerce.

The United States Fish and Wildlife Services (USFWS) and the National Marine Fisheries Service (NMFS) are the primary agencies responsible for implementing the ESA. The USFWS is responsible for birds, terrestrial, and freshwater species, while the NMFS is responsible for non-bird marine species. The USFW's responsibilities under the ESA include: (1) the identification of threatened and endangered species; (2) the identification of critical habitats for listed species; (3) implementation of research on, and recovery efforts for , these species; and (4) consultation with other Federal agencies concerning measures to avoid harm to listed species. An endangered species is a species in danger of extinction throughout all or a significant portion of its range. A threatened species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Proposed species are those that have been formally submitted to Congress threatened when any of the five following criteria occur: (1) the current/imminent destruction, modification, or curtailment of their habitat or range; (2) overuse of the species for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) the inadequacy of existing regulatory mechanisms; and (5) other natural or humaninduced factors affection continued existence.

In addition, the USFWS has identified species that are candidates for listing as a result of identified threats to their continued existence. The "candidate" designation includes those species for which the USFWS has sufficient information on hand to support proposals to list as endangered or threatened under the ESA. However, proposed rules have not yet been issued because such actions are precluded at present by other listing activity.

The ESA also calls for the conservation of "Critical Habitat" – the areas of land, water, and air space that an endangered species needs for survival. Critical habitat also includes such things as food and water, breeding sites, cover or shelter, and sufficient habitat area to provide for normal population growth and behavior.



### 1.3 Federally Listed Species

Three federally listed species occur within Rapides Parish, the red-cockaded woodpecker (*Picoides borealis*), the Louisiana pine snake (*Pituophis melanoleucus ruthveni*), and the Louisiana pearlshell (*Margaritifera hembeli*). (See Table 1-1) No species listed as endangered, threatened, or as candidate species are known to occur within or near the proposed site. The proposed site was surveyed for protected species on November 1, 2012 and no federally protected species or potential habitat was found during the field surveys. Correspondence was submitted to the USFWS, November 6, 2012, regarding threatened and endangered species in the vicinity of the subject property. The USFWS reported that there will be no impact on those resources listed above in paragraph 1.2.

Table 1-1 Federally Protected Species Inhabiting Rapides Parish, Louisiana

Common/Scientific Name	Status	Habitat
Red-cockaded woodpecker (Picoides borealis)	Endangered	Open stands of pines with a minimum age of 80 to 120 years.
Bald Eagle (Haliaeetus leucocephalus)	Delisted*	Quiet areas, rivers, or lakeshores with large, tall trees.
Louisiana pine snake (Pituophis melanoleucus ruthveni)	Candidate	Sandy soils in longleaf pine forest.
Louisiana pearshell (Magaritifera hembeli)	Threatened	Flowing water at depths ranging from 12 to 20 inches on sand and gravel substrates. The surrounding forest community is mixed hardwood-loblolly pine with a typical canopy closure of 75 to 100 percent.

Source: LDWF 2012

#### 1.4 State-Listed Species

The Louisiana Natural Heritage Program (LNHP), part of the Louisiana Department of Wildlife and Fisheries (LDWF), maintains lists of Species of Concern (SOC). This list includes species whose occurrence in Louisiana is or may be in jeopardy, or with known or perceived threats or population declines. These species are not necessarily the same as those protected by the Federal government under the ESA. A complete list of state-protected species can be found in Appendix D of this document.

The LDWF was contacted on November 6, 2012 and Responded on November 13, 2012 stating that after careful review of their database, no impacts to rare, threatened, or endangered species or critical habitats are anticipated for the proposed project. They also noted that no state or federal parks, wildlife refuges, scenic streams, or wildlife management areas are known at the specified site within Louisiana's boundaries.

<sup>\*</sup>The bald eagle receives Federal protection despites its removal from the Federal Threatened and Endangered species list under the Bald and Golden Eagle Protection Act.



#### 1.5 Conclusion

Based upon the comments received from the various federal and state agencies (attached hereto in Appendix C) regarding endangered and threatened species; and other potential environmental impacts, it is our opinion that the development of the 700± acre tract for light industrial purposes(i.e. Industrial Park type setting), will have no impact to any threatened or endangered species.

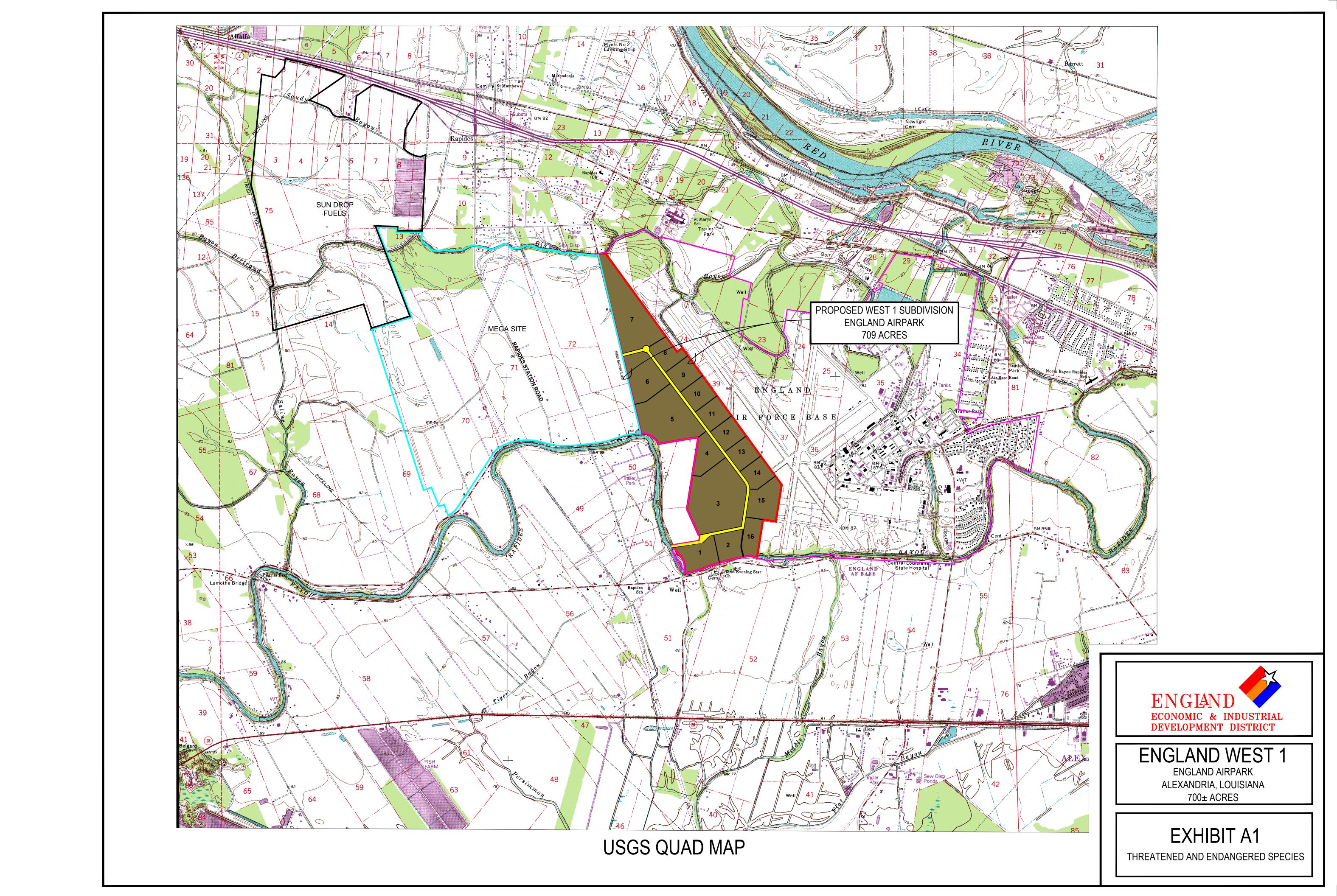
According to the ESA, a significant impact on threatened and endangered species would occur if any action resulted in a jeopardy opinion for any endangered, threatened, or rare species. No federally or state listed species or breeding habitat for those species has been identified at the proposed site. Thus, there are no anticipated cumulative impacts to threatened and endangered species.

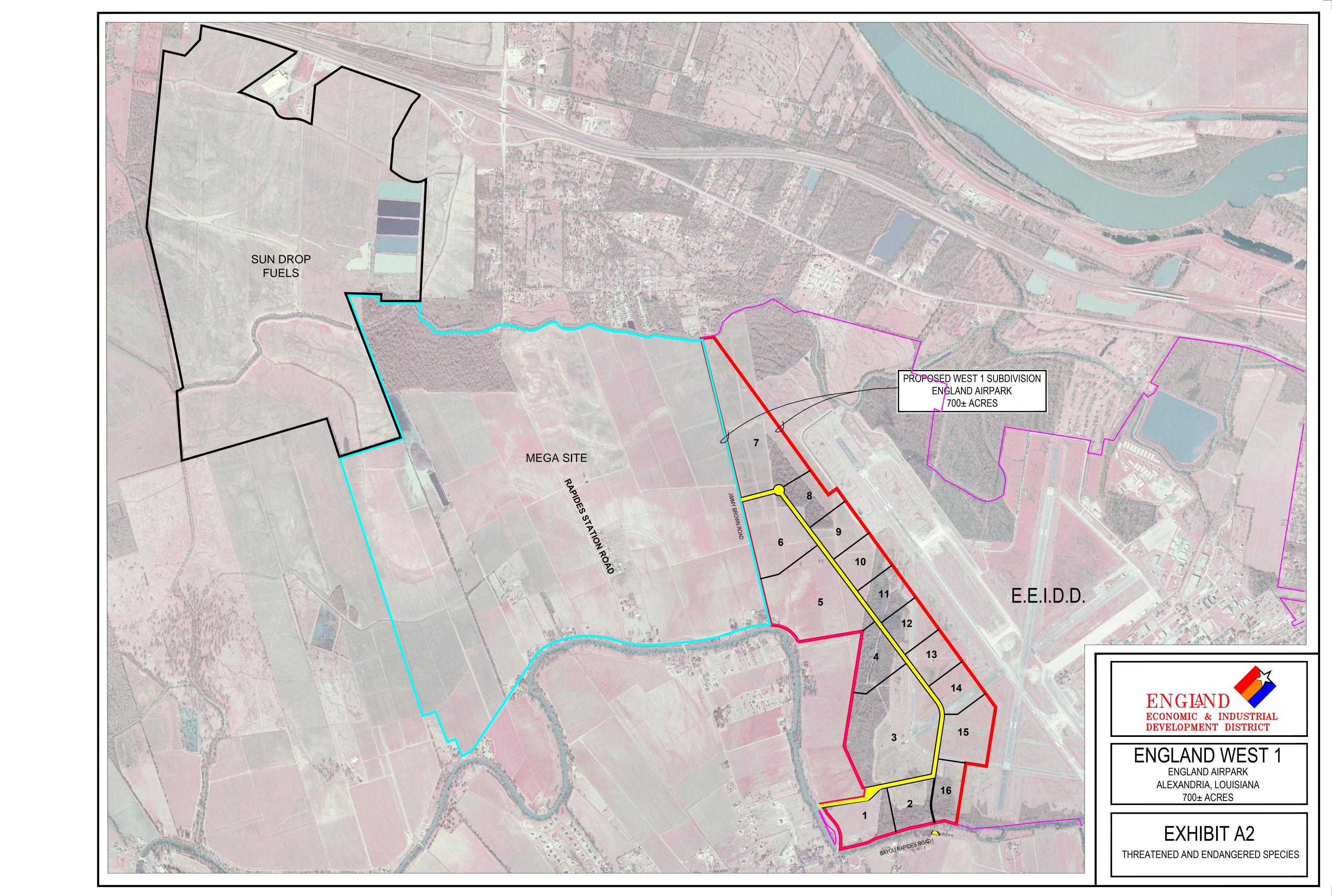
Please note that this Endangered and Threatened Species Study does not include wetlands delineations or any determinations of wetlands on the site. The wetlands delineation is established under a separate Study.



### Appendix A

**Site Drawings** 







### **Appendix B**

Federal and State Response Queries

### November 6, 2012

U. S. Fish and Wildlife Services 646 Cajun Dome Blvd., Ste 400 Lafayette, Louisiana 70506

Attention: Ms. Debbie Fuller, Acting Supervisor

COPY

PAN AMERICAN
ENGINEERS
ALEXANDRIA - INC.
Consulting Professional

Engineers and Land Surveyors

Re: England Airpark

700± Acre Site West One

LDED Industrial Site Certification

PAE Job No. 9599

Dear Ms. Fuller:

The England Economical Industrial Development District (England Authority) is working to obtain LDED/Industrial Site Certification on a 700± acre property located in Alexandria, Rapides Parish, Louisiana west of the Alexandria International Airport. The site is being proposed to be developed into an Industrial Park.

We are seeking consultation with your agency regarding any concerns you may have with regard to Threatened and Endangered Species, Critical Habitat, Vegetation, Fish and Wildlife, and Wild and Scenic Rivers. Should you have concerns on these matters or you feel this project will have an adverse affect on this area, please contact us so that we can discuss mitigation measures and incorporate such into the development of the project plan.

The England Authority also respectfully request that your agency provide a list of sensitive species and land issues that occur within the project areas, along with a description of the sensitive resources and a location map for those resources that you believe may be affected with future industrial use.

Please review this information and forward your comments to England Economic and Industrial Development District c/o Pan American Engineers, Attention: Thomas C. David, III, P.O. Box 89, Alexandria, Louisiana 71309. If you have any questions or require additional information, please do not hesitate to contact our office for assistance.

Yours very truly,

PAN AMERICAN ENGINEERS-ALEXANDRIA, INC.

Thomas C. David, III

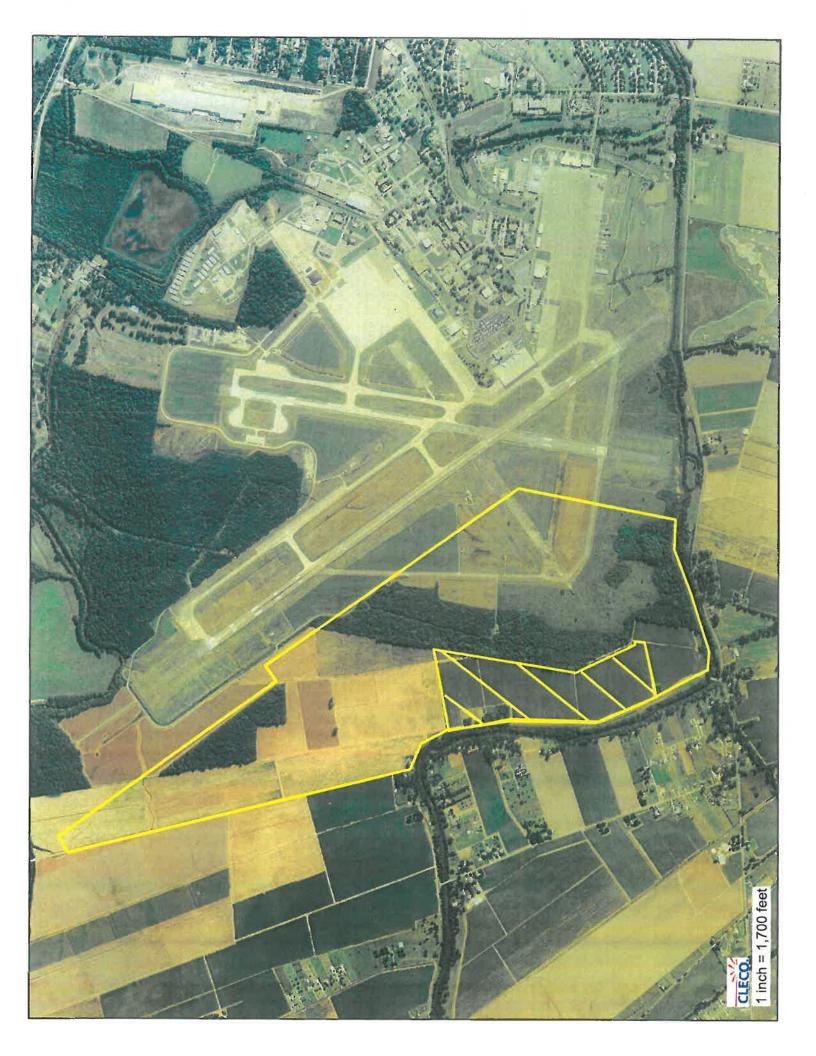
TCDIII/II

Enclosure

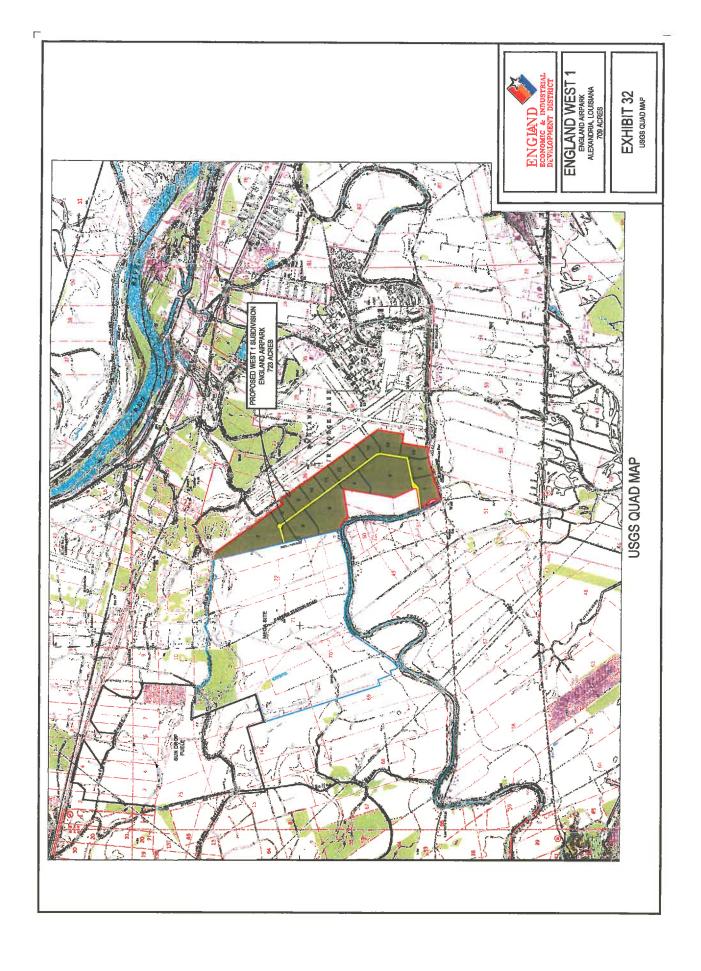
cc:

England Economic and Industrial Development District

Attention: Mr. David Broussard, Airpark Development Manager







### November 6, 2012

LA Department of Wildlife and Fisheries
Post Office Drawer 98000
Baton Rouge, LA 70898-9000



Consulting Professional Engineers and Land Surveyors

Attention: Ms. Amity Bass, Coordinator Natural Heritage Program

Re:

**England Airpark** 

700±Acre Site West One

LDED Industrial Site Certification

PAE Job No. 9599

Dear Ms. Bass:

The England Economical Industrial Development District (England Authority) is working to obtain LDED/Industrial Site Certification on a 700± acre property located in Alexandria, Rapides Parish, Louisiana west of the Alexandria International Airport. The site is being proposed to be developed into an Industrial Park.

We are seeking consultation with your agency regarding any concerns you may have with regard to Threatened and Endangered Species, Critical Habitat, Vegetation, Fish and Wildlife, and Wild and Scenic Rivers. Should you have concerns on these matters or you feel this project will have an adverse affect on this area, please contact us so that we can discuss mitigation measures and incorporate such into the development of the project plan.

The England Authority also respectfully request that your agency provide a list of sensitive species and land issues that occur within the project areas, along with a description of the sensitive resources and a location map for those resources that you believe may be affected with future industrial use.

Please review this information and forward your comments to England Economic and Industrial Development District c/o Pan American Engineers, Attention: Thomas C. David, III, P.O. Box 89, Alexandria, Louisiana 71309. If you have any questions or require additional information, please do not hesitate to contact our office for assistance.

Yours very truly,

PAN AMERICAN ENGINEERS-ALEXANDRIA, INC.

Thomas C. David, III

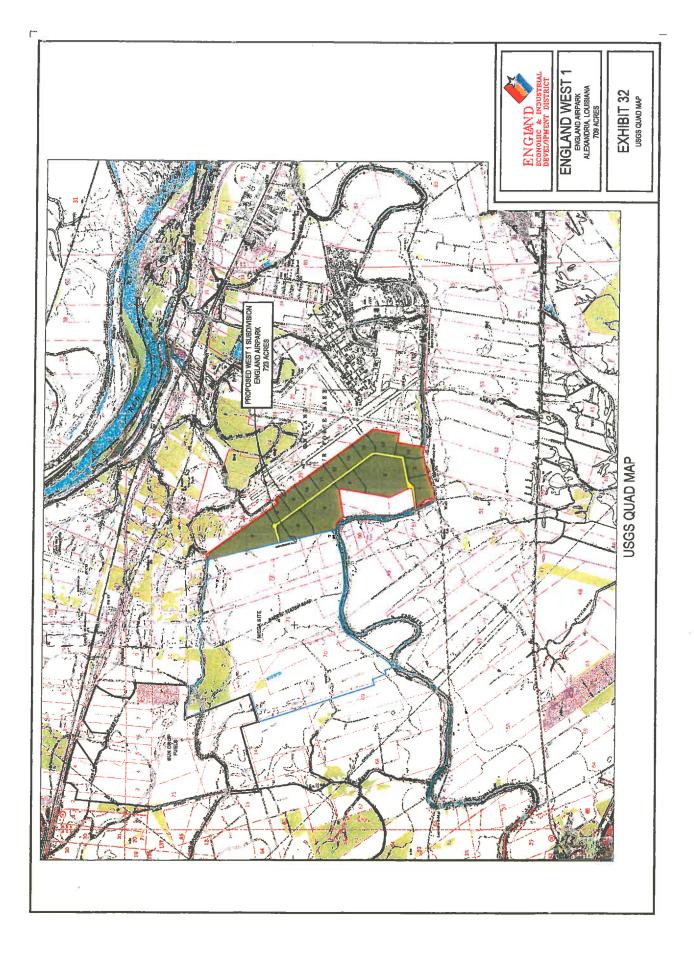
TCDIII/II
Enclosure

cc: England Economic and Industrial Development District

Attention: Mr. David Broussard, Airpark Development Manager



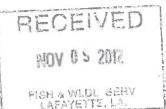






# Appendix C

**Federal and State Agency Responses** 



November 6, 2012

U. S. Fish and Wildlife Services 646 Cajun Dome Blvd., Ste 400 Lafayette, Louisiana 70506

Attention: Ms. Debbie Fuller, Acting Supervisor

ALEXANDRIA - INC.

Consulting Professional **Engineers and Land Surveyors** 

Re:

**England Airpark** 

700± Acre Site West One

LDED Industrial Site Certification

PAE Job No. 9599

Yours very truly,

ALEXANDRIA, INC.

Thomas C. David, III

PAN AMERICAN ENGINEERS-

Dear Ms. Fuller:

The England Economical Industrial Development District (England Authority) is working to obtain LDED/Industrial Site Certification on a 700± acre property located in Alexandria, Rapides Parish, Louisiana west of the Alexandria International Airport. The site is being proposed to be developed into an Industrial Park.

We are seeking consultation with your agency regarding any concerns you may have with regard to Threatened and Endangered Species, Critical Habitat, Vegetation, Fish and Wildlife, and Wild and Scenic Rivers. Should you have concerns on these matters or you feel this project will have an adverse affect on this area, please contact us so that we can discuss mitigation measures and incorporate such into the development of the project plan.

The England Authority also respectfully request that your agency provide a list of sensitive species and land issues that occur within the project areas, along with a description of the sensitive resources and a location map for those resources that you believe may be affected with future industrial use

Please review this information and forward your comments to England Economic and Industrial Development District c/o Pan American Engineers, Attention: Thomas C. David, III, P.O. Box 89, Alexandria, Louisiana 71309. If you have any questions or require additional information, please do not hesitate to contact our office for assistance.

This project has been reviewed for effects to Federal trust resources under our jurisdiction and ourrently protected by the Endangered Species Act of 1973 (Act). The project, as proposed,

[M] Will have no effect on those resources

( ) is not likely to adversely effect those resources.

reds finding fulfills the requirements under Section 7(a)(2) of the Act.

Acting Supervisor

Louisiana Field Office U.S. Fish and Wildlife Service

TCDIII/II Enclosure

CC:

England Economic and Industrial Development District

Attention: Mr. David Broussard, Airpark Development Manager

1717 Jackson Street · P.O. Box 89 · Alexandria, LA 71309-0089 318-473-2100 FAX: 318-473-2275 · www.paealex.com



BOBBY JINDAL GOVERNOR

# State of Louisiana DEPARTMENT OF WILDLIFE AND FISHERIES OFFICE OF WILDLIFE

ROBERT J. BARHAM SECRETARY JIMMY L. ANTHONY ASSISTANT SECRETARY

Date

November 13, 2012

Name

Thomas C. David, III

Company

Pan American Engineers-Alexandria, Inc.

Street Address

P.O. Box 89

City, State, Zip

Alexandrai, LA 71309

Project

**England Airpark** 

700 Acre Site West One

PAE Job No. 9599

Project ID

3852012

Invoice Number

12111313

Personnel of the Habitat Section of the Coastal & Nongame 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 onsite 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,

2

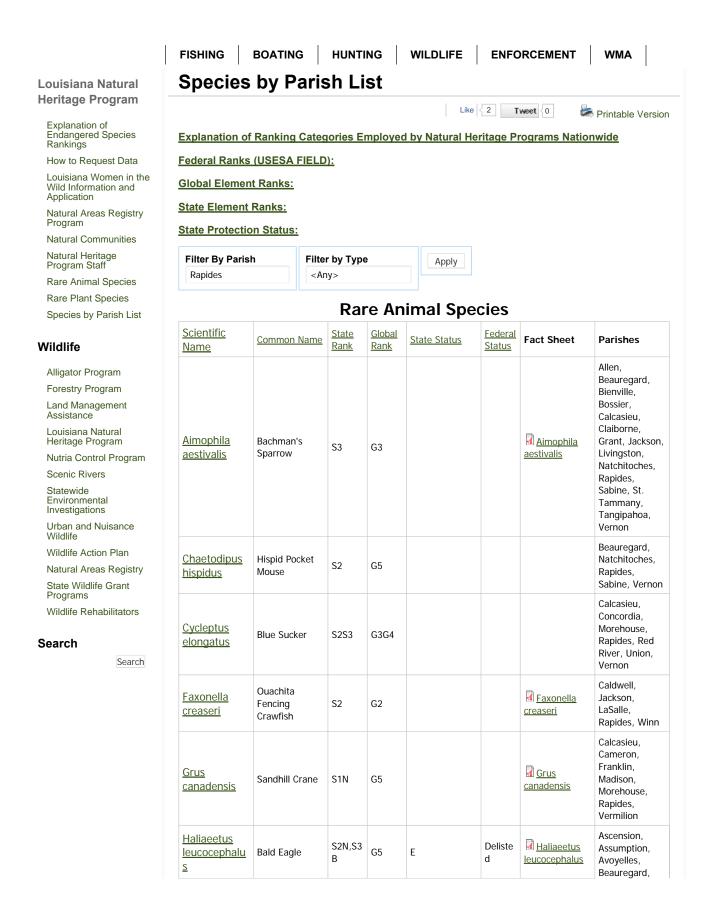
Amity Bass, Coordinator Natural Heritage Program

Cago Micha



# **Appendix D**

**Rapides Parish Species List** 



	Scientific Conta	c <u>Cbhamon Nabas</u> ut	State Rank	Global emap Rank	Statites Distolarime	Federal Status	Fact Sheet	Parishes
0-20		55-2800   Louisiar 2000 Quail Dr. B	a Depart	ment of V	Vildlife and Fisher iana 70898	ies, P.O.	Box 98000	Bossier, Caddo, Calcasieu, Claiborne, Concordia, DeSoto, East Baton Rouge, East Feliciana, Franklin, Iberia, Iberville, Jackson, Jefferson, Lafourche, LaSalle, Livingston, Morehouse, Natchitoches, Orleans, Ouachita, Plaquemines, Pointe Coupee, Rapides, Richland, Sabine, St. Bernard, St. Charles, St. James, St. John the Baptist, St. Landry, St. Martin, St. Mary, St. Tammany, Tangipahoa, Tensas, Terrebonne, Union, Vermilion, West Baton Rouge, West Feliciana
	Helmitheros vermivorus	Worm-eating Warbler	S4B	G5				Rapides, Vernon, West Feliciana
	<u>Lampsilis</u> <u>satura</u>	Sandbank Pocketbook	S2	G2			Lampsilis satura	Allen, Beauregard, Calcasieu, Rapides, Vernon
	<u>Leuctra</u> <u>szczytkoi</u>	Schoolhouse Springs Leuctran Stonefly	S2	G2			Leuctra szczytkoi	Grant, Jackson, Rapides
	<u>Macrochelys</u> <u>temminckii</u>	Alligator Snapping Turtle	\$3	G3G4	Restricted Harvest		Macrochelys temminckii	Acadia, Allen, Avoyelles, Beauregard, Bienville, Catahoula, Concordia, Grant, Iberia, Lafayette, Madison, Ouachita, Rapides, St. John the Baptist, St. Landry, St. Tammany, Tangipahoa,

Scientific Name	Common Name	State Rank	Global Rank	State Status	Federal Status	Fact Sheet	Parishes Tensas, Vermilion
Margaritifera hembeli	Louisiana Pearlshell	S1	G1	E	Т	Margaritifera hembeli	Grant, Rapides
<u>Mustela</u> <u>frenata</u>	Long-tailed Weasel	\$2\$4	G5			Mustela frenata	Allen, East Baton Rouge, East Feliciana, Jackson, Lincoln, Livingston, Ouachita, Rapides, St. James, St. Tammany, Union, Vernon, West Feliciana
<u>Obovaria</u> jacksoniana	Southern Hickorynut	S1S2	G2			Obovaria jacksoniana	Allen, Beauregard, East Baton Rouge, East Feliciana, Livingston, Natchitoches, Rapides, Sabine, St. Helena, St. Tammany, Vernon
<u>Orconectes</u> <u>blacki</u>	Calcasieu Painted Crawfish	S2	G2			Orconectes blacki	Allen, Beauregard, Rapides, Vernon
Orconectes hathawayi	Teche Painted Crawfish	\$3	G3				Allen, Evangeline, Rapides
Orconectes maletae	Kisatchie Painted Crawfish	S2	G2			Orconectes maletae	Natchitoches, Rapides, Sabine
<u>Pandion</u> <u>haliaetus</u>	Osprey	S2B,S3 N	G5			Pandion haliaetus	Grant, Iberville, Lafourche, Natchitoches, Plaquemines, Rapides, St. John the Baptist, St. Martin, St. Tammany, Winn
<u>Picoides</u> <u>borealis</u>	Red-cockaded Woodpecker	S2	G3	E	Е	Picoides borealis	Allen, Beauregard, Bienville, Bossier, Caddo, Caldwell, Catahoula, DeSoto, Evangeline, Grant, Jackson, LaSalle, Livingston, Morehouse, Natchitoches, Ouachita, Rapides, Sabine, St. Tammany, Tangipahoa,

Scientific Name	Common Name	State Rank	Global Rank	State Status	Federal Status	Fact Sheet	Parishes
							Union, Vernon Webster, Winr
<u>Pituophis</u> <u>ruthveni</u>	Louisiana Pine Snake	S2S3	G2Q		С	Pituophis ruthveni	Beauregard, Bienville, Grant, LaSalle Natchitoches, Rapides, Sabine, Verno
<u>Plethodon</u> <u>kisatchie</u>	Louisiana Slimy Salamander	S1S2	G3G4Q				Catahoula, Grant, Jackson LaSalle, Natchitoches, Ouachita, Rapides, Winn
<u>Plethodon</u> <u>serratus</u>	SOUTHERN RED-BACKED SALAMANDER	S1	G5	Prohibited		Plethodon serratus	Catahoula, DeSoto, Natchitoches, Rapides
<u>Pleurobema</u> riddellii	Louisiana Pigtoe	S1S2	G1G2			Pleurobema riddellii	Allen, Natchitoches, Rapides, Red River, Vernon
<u>Polyodon</u> spathula	Paddlefish	\$3	G4			Polyodon spathula	Acadia, Avoyelles, Cameron, Catahoula, Concordia, Evangeline, Franklin, Iberi Jefferson Davis, LaSalle Orleans, Ouachita, Rapides, Sabine, St. Bernard, St. Charles, St. John the Baptist, St. Martin, St. Mary, St. Tammany, Tangipahoa, Tensas, Unior
Procambarus jaculus	Javelin Crawfish	S1S2	G4				Avoyelles, Rapides
<u>Pteronotropis</u> <u>hubbsi</u>	Bluehead Shiner	S2	G3				Avoyelles, LaSalle, Morehouse, Ouachita, Rapides, Unio
Strophitus subvexus	Southern Creekmussel	S1	G3			Strophitus subvexus	Ascension, Beauregard, Livingston, Rapides, Vernon, Winn
Strophitus undulatus	Squawfoot	S2	G5				Claiborne, Lincoln, Madison, Rapides, Unio

### **Rare Plant Species**

<u>Scientific</u> <u>Name</u>	Common Name	State Rank	Global Rank	State Status	Federal Status	Fact Sheet	Parishes
<u>Amsonia</u> <u>ludoviciana</u>	Louisiana Blue Star	S3	G3				Allen, Bienville, Calcasieu, Grant, Natchitoches, Ouachita, Rapides, Red River, Sabine, Vernon, Winn
<u>Burmannia</u> <u>biflora</u>	Northern Burmannia	\$3	G4G5				Bienville, Caddo, Catahoula, DeSoto, Grant, LaSalle, Ouachita, Rapides, St. Tammany, Vernon, Webster, Winn
<u>Camassia</u> scilloides	Atlantic Camas	S3	G4G5				Bossier, Caddo Morehouse, Natchitoches, Rapides, Webster, Winn
<u>Carex meadii</u>	Mead's Sedge	S3	G4G5				Acadia, Allen, Bossier, Caddo Calcasieu, DeSoto, Grant, Jefferson Davis, Morehouse, Natchitoches, Rapides, Winn
<u>Carex</u> microdonta	Little Tooth Sedge	S3	G4				Acadia, Calcasieu, Grant, Iberia, LaSalle, Natchitoches, Rapides, Vernon, Winn
<u>Cypripedium</u> kentuckiense	Southern Lady's-slipper	S1	G3			Cypripedium kentuckiense	Bienville, Bossier, Caldwell, Catahoula, DeSoto, Evangeline, Franklin, Grant, Jackson, LaSalle, Lincoln, Natchitoches, Ouachita, Rapides, Red River, Sabine, Union, Vernon, Winn
Dichantheliu m strigosum var. glabrescens	Roughhair Witchgrass	S1	G5T4T 5				Beauregard, Grant, LaSalle, Rapides, St. Tammany, Washington
<u>Dryopteris</u> <u>ludoviciana</u>	Southern Shield Wood-fern	S2	G4			Dryopteris ludoviciana	Bienville, East Baton Rouge, East Feliciana, Grant, Iberia, Rapides, St. Mary,

<u>Scientific</u> <u>Name</u>	Common Name	State Rank	Global Rank	State Status	<u>Federal</u> <u>Status</u>	Fact Sheet	Parishes Tangipahoa, West Feliciana
<u>Dulichium</u> <u>arundinaceu</u> <u>m</u>	Three-way Sedge	S2	G5				Bienville, Caddo, Rapides, St. Tammany, Washington
Euphorbia discoidalis	Summer Spurge	S1	GNR				Rapides
<u>Fuirena</u> simplex var. aristulata	Western Umbrella Sedge	S1	G5T4				East Carroll, Natchitoches, Rapides, St. Charles, St. Landry, St. Tammany
<u>Hexalectris</u> <u>spicata</u>	Crested Coral- root	S2	G5				Caldwell, Claiborne, Evangeline, Lincoln, Natchitoches, Ouachita, Rapides, Vernon, Webster, West Feliciana
<u>Lobelia</u> flaccidifolia	Coastal Plain Lobelia	S2?	G5				Allen, Avoyelles, Beauregard, Calcasieu, Grant, Jefferson Davis, LaSalle, Rapides, Vernon
<u>Mayaca</u> fluviatilis	Bog Moss	S2	G5				Evangeline, Rapides, St. Tammany
<u>Melanthera</u> <u>nivea</u>	Snow Melanthera	S2	G5			Melanthera nivea	Concordia, Iberia, Iberville, Rapides, St. Helena, Tensas
Oenothera pilosella ssp. sessilis	Meadow Evening Primrose	S1?	G5T2Q				Claiborne, Jefferson Davis, Morehouse, Rapides, Tensas
<u>Orobanche</u> <u>uniflora</u>	Broomrape	S1	G5				Rapides, Vernon
<u>Quercus</u> rubra	Red Oak	S1S3	G5				Caldwell, DeSoto, Morehouse, Rapides, St. Tammany, Union, West Carroll
Rhynchospor a miliacea	Millet Beakrush	S2	G5			Rhynchospora miliacea	Allen, Lafourche, Livingston, Rapides, St. Mary, St. Tammany,

Scientific Name	Common Name	State Rank	Global Rank	State Status	Federal Status	Fact Sheet	Parishes
							Terrebonne, Vernon, Winn
Schisandra glabra	Scarlet Woodbine	\$3	G3			Schisandra glabra	Caldwell, Catahoula, East Feliciana, Evangeline, Iberia, Jackson, Lincoln, Natchitoches, Rapides, St. Helena, St. Mary, West Feliciana
Schoenoplect us etuberculatus	Bulrush	S1	G3G4			Schoenoplectus etuberculatus	Rapides, Sabine, St. Tammany, Washington
Triphora trianthophora	Nodding Pogonia	S2	G3G4			Triphora trianthophora	Iberville, Natchitoches, Rapides, West Feliciana

### **Natural Communities**

Scientific Name	Common Name	State Rank	Global Rank	State Status	Federal Status	Fact Sheet	Parishes
<u>Bayhead</u> <u>Swamp</u>		S3	G3?			Bayhead Swamp	Beauregard, Jackson, Rapides, St. Tammany, Vernon, Washington, Winn
Bottomland Hardwood Forest		S4	G4G5			Bottomland Hardwood Forest	Ascension, Avoyelles, Bossier, Caddo, Calcasieu, Caldwell, Catahoula, Concordia, East Baton Rouge, East Carroll, Franklin, Grant, Iberville, Lincoln, Livingston, Madison, Morehouse, Natchitoches, Plaquemines, Rapides, Richland, Sabine, St. Tammany, Tensas, Union, Vernon, West Carroll, Winn
<u>Cypress</u> <u>Swamp</u>		S4	G4G5			Cypress Swamp	Ascension, Bienville, Bossier, Evangeline, Iberia, Iberville, LaSalle, Rapides, Richland, St.

Scientific Name	Common Name	State Rank	Global Rank	State Status	Federal Status	Fact Sheet	Parishes  Mary, Tangipahoa
<u>Cypress-</u> <u>Tupelo</u> <u>Swamp</u>		S4	G3G5				Ascension, Assumption, Bossier, East Baton Rouge, Franklin, Iberia, Iberville, Livingston, Natchitoches, Pointe Coupee, Rapides, St. Charles, St. James, St. John the Baptist, St. Landry, St. Martin, St. Mary, St. Tammany, Terrebonne, West Feliciana, Winn
Fleming Calcareous Prairie		S1	G1			Calcareous Prairie	Natchitoches, Rapides, Vernon
Fleming Glade		S1	G1			Fleming Glade	Rapides
<u>Hardwood</u> <u>Slope Forest</u>		\$3\$4	G2G3			Hardwood Slope Forest	Bienville, Bossier, Caldwell, Catahoula, East Feliciana, Evangeline, Grant, Jackson, LaSalle, Natchitoches, Ouachita, Rapides, St. Helena, St. Mary, St. Tammany, Tangipahoa, Union, West Carroll
Mixed Hardwood- Loblolly Pine Forest		S4	G3G4			Mixed Hardwood- Loblolly Pine Forest	Caldwell, Catahoula, Claiborne, Evangeline, Grant, Jackson, LaSalle, Natchitoches, Ouachita, Rapides, Richland, Tangipahoa, Vernon, Webster, West Carroll, Winn
Pine Flatwoods		S3	G2G3			Pine Flatwoods	Grant, Rapides, St. Tammany, Vernon
Scrub/Shrub Swamp		S4S5	G3?			Scrub/Shrub Swamp	Avoyelles, LaSalle, Rapides, Terrebonne

Scientific Name	Common Name	State Rank	Global Rank	State Status	Federal Status	Fact Sheet	Parishes
Shortleaf Pine/Oak- Hickory Forest		S2S3	G2G3			Shortleaf Pine/Oak- Hickory Forest	Bienville, DeSoto, Grant, Lincoln, Natchitoches, Rapides, Tangipahoa, Webster, Winn
Small Stream Forest		\$3	G3			Small Stream Forest	Claiborne, DeSoto, East Feliciana, Franklin, Grant, LaSalle, Natchitoches, Rapides, Sabine, St. Helena, St. Tammany, Tangipahoa, Vernon, Webster, West Feliciana, Winn
Western Acidic Longleaf Pine Savannah		S1S2	G2G3			Western Acidic Longleaf Pine Savannah	Allen, Beauregard, Jefferson Davis, Natchitoches, Rapides
Western Hillside Seepage Bog		S2	G2G3			Western Hillside Seepage Bog	Beauregard, Grant, Natchitoches, Rapides, Vernon, Winn
Western Upland Longleaf Pine Forest		S2S3	G2G3			Western Upland Longleaf Pine Forest	Allen, Beauregard, Bienville, Grant, Natchitoches, Rapides, Sabine, Vernon, Winn

Plant Tracking List and Fact Sheets

<u>up</u>

### PREPARED BY:

PAN AMERICAN ENGINEERS – ALEXANDRIA, INC. 1717 JACKSON ST. – P.O. BOX 89 ALEXANDRIA, LA 71309 (318) 473-2100 (318) 473-2275 - FAX Panam@Paealex.Com