

Exhibit V-Threatened &  
Endangered Species  
Assessment & Letter

April 30, 2015

Mr. Larry Henson  
Louisiana Economic Development (LED)  
1051 North Third St.  
Baton Rouge, LA 70802-5239

Mr. David Conner  
Southwest Economic Development Alliance (SWLA)  
P.O. Box 3110  
Lake Charles, LA 70602

RE: B85-Chennault Site 5 (160 Acres)  
Threatened & Endangered Species Assessment

Dear Gentlemen:

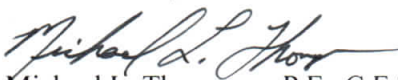
SJB Group, LLC (SJB) has been authorized by Louisiana Economic Development (LED and Southwest Louisiana Economic Alliance (SWLA) to perform due diligence investigations to determine the existence of fatal flaws, if any, that would inhibit the development of Chennault Site 5 (+/- 160 acres), located southeast of the City of Lake Charles in Calcasieu Parish, Louisiana.

The attached report presents the findings of the Threatened & Endangered Species Assessment for the site. The Phase I ESA was performed by SJB Group, LLC of Baton Rouge, LA.

Please feel free to contact me at (225) 769-3400, at any time, should you have any questions or need further information.

Sincerely,

**SJB GROUP, LLC**

  
Michael L. Thompson, P.E., C.E.T.  
Engineering Department Manager

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BOBBY JINDAL  
GOVERNOR

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

ROBERT J. BARHAM  
SECRETARY  
JIMMY L. ANTHONY  
ASSISTANT SECRETARY

**Date** June 26, 2015  
**Name** Andy Hursey  
**Company** SJB Group, LLC  
**Street Address** P.O. Box 1751  
**City, State, Zip** Baton Rouge, LA 70821  
**Project** Chennault Site 5  
**Project ID** 1362015  
**Invoice Number** 15062619

Personnel 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 within Louisiana's boundary are anticipated for the proposed project. No state or federal parks, wildlife refuges, scenic streams, or wildlife management areas are known at the specified site within Louisiana's boundaries.

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

Sincerely,

for *Green Michael*  
Amity Bass, Coordinator  
Natural Heritage Program6



# Threaten and Endangered Species Assessment

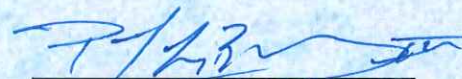
**± 160 acre B-85 Chennault Site 5**  
**Located off of Tom Watson Road**  
**Lake Charles, Calcasieu Parish, Louisiana**

**for**

**Mr. David Conner**  
**SWLA Economic Development Alliance**  
**4310 Ryan Street**  
**Lake Charles, LA 70605**

**Mr. Larry Henson**  
**Louisiana Economic Development (LED)**  
**1051 North Third Street**  
**Baton Rouge, LA 70802-5239**

Submitted by:



Paul LeBlanc, III  
Environmental Scientist II

Prepared by:

**SJB**  **GROUP, LLC**  
Q U A L I T Y   B Y   D E S I G N

**June 2014**  
**Ref. 11341.0**

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# **THREATENED AND ENDANGERED SPECIES ASSESSMENT**

**±160-acre B-85 Chennault Site 5  
Located south of Tom Watson Road  
Lake Charles, Calcasieu Parish, Louisiana**

**for**

**David Conner  
SWLA Economical Development Alliance  
4310 Ryan Street  
Lake Charles, LA 70605**

**Larry Henson  
Louisiana Economical Development (LED)  
1051 North 3rd Street  
Baton Rouge, LA 70802-5239**

**JUNE 2014  
Ref. 11341.3**

**SJB GROUP, LLC  
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## 1.0 INTRODUCTION

### 1.1 GENERAL

This report details methodology and an assessment of survey results for a threatened and endangered species survey completed in May 2014 on approximately 160 acre tract of land located south of Tom Watson Road, Lake Charles, Calcasieu Parish, Louisiana. The threatened and endangered species survey was conducted to determine the occurrence of, or potential for, animal and plant species federally listed as endangered or threatened to exist within the referenced site. Completion of this survey was directed by and complies with current state and federal regulations [Federal Endangered Species Act of 1973 (16 USC 1531-1543)].

## 2.0 METHODOLOGY

The following threatened and endangered species are listed by the US Fish & Wildlife Service as occurring in or potentially occurring in Louisiana.

Common Name	Scientific Name	Federal Status
<b>PLANTS</b>		
American Chaffseed	Schwalbea americana	E
N/A	Geocarpon minimum*	T
Louisiana Quilwort	Isoetes louisianensis	E
<b>ANIMALS</b>		
Louisiana Black Bear	Ursus americanus luteolus	T
Alabama Heelsplitter	Potamilus inflatus	T
West Indian Manatee	Trichechus manatus	E
Mucket, Pink*	Lampsilis abrupta	E
Louisiana Pearlshell	Margaritifera hembeli	T
Piping Plover*	Charadrius melodus	T
Smalltooth Sawfish	Pristis pectinata	E
Interior Tern*	Sterna antillarum	E
Gopher Tortoise	Gopherus polyphemus	T
Red-cockaded Woodpecker*	Picoides borealis	E

***Federal Status Key***

T = Threatened

E = Endangered



### Rare Species found in Calcasieu Parish, Louisiana

Common Name	Scientific Name	State Rank
<b>RARE ANIMALS</b>		
Old Prairie Crawfish	Fallicambarus macneesei	S2
Cooper's Hawk	Accipiter cooperii	S2B, S3, N
Bachman's Sparrow	Aimophila aestivalis	S3
Red Wolf	Canis rufus	SX
Sandhill Crane	Grus canadensis	S1N
Bald Eagle	Haliaeetus leucocephalu	S2N, S3B
<b>RARE PLANTS</b>		
Green milkweed	Asclepias hirtella	S1
Purple False-foxglove	Agalinis filicaulis	S1
Mead's Sedge	Carex meadii	S3
Evening Rainlilly	Cooperia drummondii	S2
Green milkweed	Asclepias hirtella	S1
Coastal Plain Lobelia	Lobelia flaccidifolia	S1
Louisiana Blue Star	Amsonia ludoviciana	S3
Grapefruit Primrosewillow	Ludwigia spaerocarpa	S2
Hawkweed	Hieracium longipilum	S1
Little tooth sedge	Carex microdonta	S3
Gayfeather	Liatris punctate	S1
Ten petal Thimbleweed	Anemone berlandieri	S2

#### State Rank Key

S1 = ≤ 5 communities

S4 = 100 to 1000 communities

S2 = 6 to 20 communities

S5 = 1000+ communities

S3 = 21 to 100 communities

Existing data from Louisiana Department of Wildlife and Fisheries (LDWF) was reviewed to locate recorded occurrences of threatened and endangered species within or near the subject site. At the time of this report, there is no documentation of any rare, threatened or endangered species within or immediately adjacent to the referenced tract. As noted by LDWF, their records are not assumed to be complete and they should not be assumed to be comprehensive; therefore, field surveys should be conducted for thorough evaluations. Several of the species listed as potentially occurring in the site were eliminated from the survey based upon broad habitat requirements; these species have been indicated with an asterisk. The remaining species were included in the assessment.

As noted, field surveys to identify suitable habitat were initially conducted in early May of 2014. During the field surveys, plant/animal communities and habitats



were observed and noted to determine if they match habitat types where the listed species have the potential to occur. If potential habitat was identified at the site, all species observed were, at a minimum, identified to the genus taxonomic level.



### 3.0 HABITAT CLASSIFICATIONS

The following is a description and classification of major habitat/community types identified within the site. Also noted is an assessment of suitability for federal listed threatened and endangered species.

#### 3.1 PALUSTRINE EMERGENT WETLAND

This wetland community is located throughout the site. A palustrine emergent wetland is a wetland that has been created in depression areas that can or cannot be isolated from other wetland areas. This habitat does not support woody vegetation and meets the following hydrological criteria: Inundated for 15 consecutive days or more during the growing season or 10 percent of the growing season, or if a pothole, playa, or pocosin is ponded for 7 or more consecutive days during the growing season and/or is saturated for 14 or more consecutive days during the growing season. The dominant plant species that occur in this area consist of broomsedge (*Andropogon virginicus*), Soft Rush (*Juncus effuses*), Bahai grass (*Paspalum notatum*), Louisiana Blackberry (*Rubus Louisianus*), Bull Thistle (*Cirsium vulgare*), Chinese Privet (*Ligustrum sinense*), Tallow Tree (*Sapium serbiferum*), and Golden Rod (*Solidago austrina*). This vegetative community does not provide suitable habitat for any of the listed species.

#### 3.2 RANGE AND PASTURE LAND

Range and pasture lands are diverse types of land where the primary vegetation produced is herbaceous plants and shrubs. These lands provide forage for beef cattle, dairy cattle, sheep, goats, horses and other types of domestic livestock. Also many species of wildlife, ranging from big game such as elk to nesting song birds such as meadowlarks, depend on these lands for food and cover. Plant species that are commonly found in these habitats include Drummond Rattlebox (*Sesbania drummondii*), Bahia grass (*Paspalum notatum*), Tallow tree (*Triadica sebifera*), Bull Thistle (*Cirsium vulgare*), and LA Blackberry (*Rubus louisianus*). Due to frequent grazing and clearing, this vegetative community does not provide suitable habitat for any of the listed species.



## 4.0 LISTED SPECIES AND ACKNOWLEDGED HABITATS

### 4.1 LOUISIANA BLACK BEAR

The Louisiana black bear is a habitat generalist. Large tracts of diverse bottomland hardwood (BLH) forest communities can provide for the black bear's life requisites (e.g., escape cover, denning sites, and hard and soft mast). The term BLH forest means hardwood (oak, hickory) forest situated on river flood plains such as the Mississippi and the Atchafalaya. Other habitat types may be utilized, including marsh; upland forested areas; forested spoil areas along bayous, brackish marsh, freshwater marsh, salt domes, and agricultural fields. No Louisiana Black Bear s were observed during our field investigations.

### 4.2 GOPHER TORTOISE

Though gopher tortoises occur in many plant communities, longleaf pine ecosystems, which are divided into 2 general types—pine-oak sandhills and pine flatwoods—comprise about 80% of the habitats associated with the gopher tortoise. Gopher tortoises may occur at moderate to high densities in early-successional stages of pine plantations but tend to occur at lower densities in late stages with closed canopies. Due to the lack of any suitable habitat within the tract. No Gopher Tortoise or their habitat is present on the site.

### 4.3 LOUISIANA QUILWORT

The habitat for this species is found in small blackwater streams (water often tea-colored, stained with tannins released from leaf decomposition), often on sand/gravel/mud bars and stream banks. During higher water plants may be partially submersed and leaves may be seen trailing in the current. Adjacent forest type is small stream forest, with laurel oak (*Quercus laurifolia*), water oak (*Q. nigra*), loblolly pine (*Pinus taeda*), sweetbay magnolia (*Magnolia virginiana*), and swamp blackgum (*Nyssa biflora*). Coarser, more stable substrate is apparently preferred and Louisiana quillwort is not usually rooted in soft fine mucky substrate. The wetland habitat found on this tract is not suitable for this species to thrive. No Louisiana Quillwort was observed during the site investigation.

### 4.4 AMERICAN CHAFFSEED

American chaffseed is an upland herbaceous species that occurs in sandy (sandy peat, sandy loam), acidic, seasonally moist to dry soils. It is generally found in



habitats described as open, moist pine flatwoods, fire-maintained savannas, ecotonal areas between peaty wetlands and xeric sandy soils, and other open grass-sedge systems. Chaffseed is dependent on factors such as fire, mowing, or fluctuating water tables to maintain the crucial open to partly-open conditions that it requires. Historically, the species most likely existed on savannas and pinelands throughout the coastal plain and on sandstone knobs and plains inland where frequent, naturally occurring fires maintained these sub-climax communities. The habitat found on this tract is not suitable for this species. No American Chaffseed was observed during the site investigation.



## 5.0 CONCLUSION

No threatened and endangered species were observed during this survey and based on habitat and geographical location, it is unlikely that any such species nest or live within the property. It is the opinion of SJB Group, LLC that based upon the findings of this survey and report, that the proposed development plan for the referenced tract is not likely to cause an adverse impact to any threatened and endangered species.

However, it should be noted that because of the transitory nature of some of the listed threatened and endangered plants and animals, it is possible that endangered species populations and locations may change over time. Therefore, if significant time should lapse between issuance of this report and development of the property or any other type of legal reliance, it is strongly recommended that an update of this report be completed. The definition of significant time is not absolute, but would include passing of annual breeding or migratory seasons.



## 6.0 REFERENCES

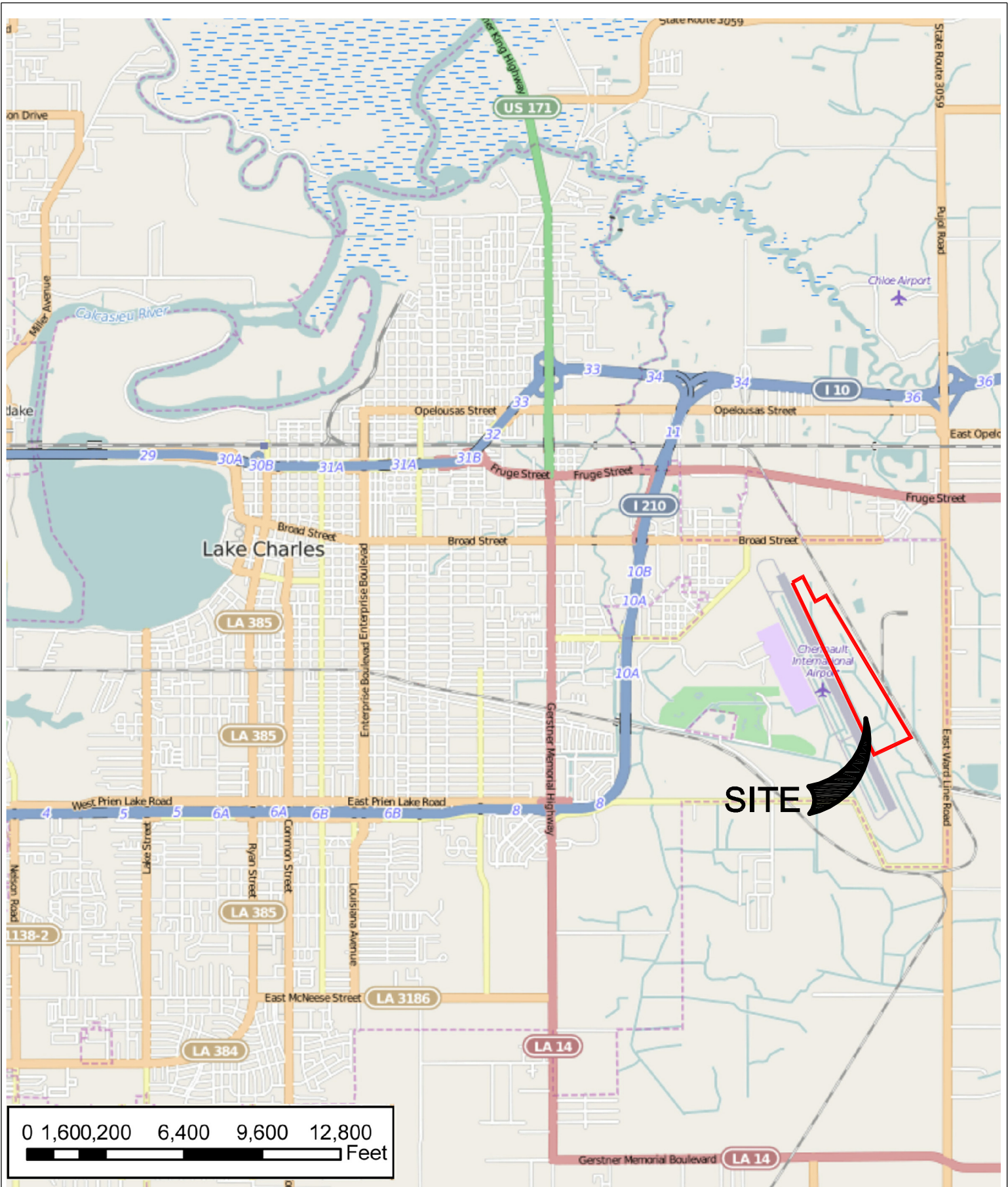
Louisiana Department of Wildlife and Fisheries, Rare Animals and Plants, 2013.  
Calcasieu Parish (<http://www.wlf.louisiana.gov>)

U.S. Fish and Wildlife Service. Threatened and Endangered Species List, 2013.  
[http://ecos.fws.gov/tess\\_public/countySearch!speciesByCountyReport.action?fips=22053](http://ecos.fws.gov/tess_public/countySearch!speciesByCountyReport.action?fips=22053)

U.S. Department of Agriculture, Soil Conservation Service. 1995. Soil mapping Units and Hydric Soils Designations, Louisiana. Third edition. 1995.

United States Geological Survey, color aerial photography from 2013.













PHOTOGRAPH 1: Louisiana Black Bear



PHOTOGRAPH 2: Gopher Tortoise





PHOTOGRAPH 3: Louisiana Quilwort



PHOTOGRAPH 4: American Chaffseed