

# JOINT APPLICATION AND NOTIFICATION

U.S. ARMY CORPS OF ENGINEERS  
MISSISSIPPI DEPARTMENT OF MARINE RESOURCES  
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY/OFFICE OF POLLUTION CONTROL

This form is to be used for proposed activities in waters of the United States in Mississippi and for the erection of structures on suitable sites for water dependent industry. Note that some items, as indicated, apply only to projects located in the coastal area of Hancock, Harrison and Jackson Counties.

1. Date  
01 25 2024  
month day year

2. Applicant name, mailing address, phone number and email address:  
SL Coastal  
1206 Suite C  
Biloxi, MS 39532 POC Dennis Stieffel  
dennis@dsaeng.net 228-860-8161

Agent name, mailing address, phone number and email address:  
DANA R. SANDERS, JR  
2305 Lewis Gate Drive  
Gautier, MS 39553  
drsawet@bellsouth.net 228/623-9714 (office)

3. Official use only  
COE \_\_\_\_\_  
DMR \_\_\_\_\_  
DEQ \_\_\_\_\_  
A95 \_\_\_\_\_  
DATE RECEIVED \_\_\_\_\_

4. Project location  
Street Address Jean Street City/Community Ocean Springs  
Name of Waterway Ramsey Bayou Latitude 30.365755N Longitude (if known) -88.738424W  
Geographic location: Section 12 Township 8 Range 8 County Jackson County

5. Project description  
New work  Maintenance work \_\_\_\_\_  
**Dredging**  
Channel length \_\_\_\_\_ width \_\_\_\_\_ existing depth \_\_\_\_\_ proposed depth \_\_\_\_\_  
Canal length \_\_\_\_\_ width \_\_\_\_\_ existing depth \_\_\_\_\_ proposed depth \_\_\_\_\_  
Boat Slip length \_\_\_\_\_ width \_\_\_\_\_ existing depth \_\_\_\_\_ proposed depth \_\_\_\_\_  
Marina length \_\_\_\_\_ width \_\_\_\_\_ existing depth \_\_\_\_\_ proposed depth \_\_\_\_\_  
Other-Mooring Basin length \_\_\_\_\_ width \_\_\_\_\_ existing depth \_\_\_\_\_ proposed depth \_\_\_\_\_

Cubic yards of material to be removed \_\_\_\_\_ Type of material \_\_\_\_\_  
Location of spoil disposal area \_\_\_\_\_  
Dimensions of spoil area \_\_\_\_\_ Method of excavation \_\_\_\_\_  
How will excavated material be contained? \_\_\_\_\_

**Construction of structures**  
Bulkhead Total length \_\_\_\_\_ Height above water \_\_\_\_\_  
Pier length \_\_\_\_\_ width \_\_\_\_\_ height \_\_\_\_\_  
Boat Ramp length \_\_\_\_\_ width \_\_\_\_\_ slope \_\_\_\_\_  
Boat House length \_\_\_\_\_ width \_\_\_\_\_ height \_\_\_\_\_

Structures on designed sites for water dependent industry (Coastal area only). Explain in item 11 or include as attachment.  
Other (explain) \_\_\_\_\_

**Filling**  
Dimensions of fill area 2 AREAS TOTALING 11.55 ACRE (PART II, FIGURE 2)  
Cubic yards of fill 5500 Type of fill NATIVE FILL AND CONCRETE/ASPHALT

Other regulated activities (i.e. Seismic exploration, burning or clearing of marsh) Explain.  
NONE

**6. Additional information relating to the proposed activity**

Does project area contain any marsh vegetation? Yes \_\_\_\_\_ No

(If yes, explain) \_\_\_\_\_

Is any portion of the activity for which authorization is sought now complete? Yes \_\_\_\_\_ No

(If yes, explain) \_\_\_\_\_

Month and year activity took place \_\_\_\_\_

If project is for maintenance work on existing structures or existing channels, describe legal authorization for the existing work. Provide permit number, dates or other form(s) of authorization. \_\_\_\_\_ N/A

Has any agency denied approval for the activity described herein or for any activity that is directly related to the activity described herein?

Yes \_\_\_\_\_ No  (If yes, explain) \_\_\_\_\_

**7. Project schedule**

Proposed start date Jan 2025 Proposed completion date OCT 2025

Expected completion date (or development timetable) for any projects dependent on the activity described herein. \_\_\_\_\_

NONE

**8. Estimated cost of the project** \_\_\_\_\_ \$500,000.00

**9. Describe the purpose of this project. Describe the relationship between this project and any secondary or future development the project is designed to support.** THE PURPOSE OF THIS STAND-ALONE PROJECT IS TO PROVIDE

26 LOTS FOR CONSTRUCTION OF SINGLE FAMILY RESIDENCES. THE PROJECT WILL PROVIDE JOBS FOR THE

AREA, CREATE A TAX BASE FOR THE COUNTY, AND PROVIDE A PURCHASING OPPORTUNITY FOR HOME

BUYERS WISHING TO LIVE WITHIN CLOSE PROXIMITY OF OCEAN SPRINGS SCHOOLS

Intended use: Private \_\_\_\_\_ Commercial  Public \_\_\_\_\_ Other (Explain) \_\_\_\_\_

**10. Describe the public benefits of the proposed activity and of the projects dependent on the proposed activity.**

**Also describe the extent of public use of the proposed project.**

THE ACTIVITY WILL PROVIDE JOBS AND INCREASED TAX BASE FOR THE COUNTY. NO PUBLIC USE.

**11. Narrative Project Description:**

[SEE ATTACHMENT A]

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12. Provide the names and addresses of the adjacent property owners. Also identify the property owners on the plan view of the drawing described in Attachment "A". (Attach additional sheets if necessary.)

1. NOT REQUIRED FOR NW PERMITS

2.

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13. List all approvals or certifications received or applied for from Federal, State and Local agencies for any structures, construction, discharges, deposits or other activities described in this application. Note that the signature in Item 14 certifies that application has been made to or that permits are not required from the following agencies. If permits are not required, place N/A in the space for Type Approval.

<u>Agency</u>	<u>Type Approval</u>	<u>Application Date</u>	<u>Approval Date</u>
Dept. of Environmental Quality	WQC, NPDES, SEWER		
Dept. of Marine Resources	CONSISTENCY		
Army Corps of Engineers			
City/County _____			
Other _____			

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**14. Certification and signatures**

Application is hereby made for authorization to conduct the activities described herein. I agree to provide any additional information/data that may be necessary to provide reasonable assurance or evidence to show that the proposed project will comply with the applicable state water quality standards or other environmental protection standards both during construction and after the project is completed. I also agree to provide entry to the project site for inspectors from the environmental protection agencies for the purpose of making preliminary analyses of the site and monitoring permitted works. I certify that I am familiar with and responsible for the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete and accurate. I further certify that I am the owner of the property where the proposed project is located or that I have a legal interest in the property and that I have full legal authority to seek this permit.

U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willingly falsifies, conceals, or covers up by any trick, scheme or device a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than five years, or both.

**Mississippi Coastal Program (Coastal area only)**

I certify that the proposed project for which authorization is sought complies with the approved Mississippi Coastal Program and will be conducted in a manner consistent with the program.

  
\_\_\_\_\_  
Signature of Applicant or Agent

1-29-24  
\_\_\_\_\_  
Date

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**15. Fees**

Payable to MS Dept. of Marine Resources  
\$50.00 Single-family residential application fee  
\$500.00 Commercial application fee  
Public notice fee may be required

Please include appropriate fees for all projects proposed in coastal areas of Hancock, Harrison and Jackson Counties.

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**16. If project is in Hancock, Harrison or Jackson Counties, send one completed copy of this application form and appropriate fees listed in Item 15 to:**

Department of Marine Resources  
Bureau of Wetlands Permitting  
1141 Bayview Avenue  
Biloxi, MS 39530  
(228) 374-5000

If project **IS NOT** in Hancock, Harrison or Jackson Counties, send one completed copy of this application form to each agency listed below:

District Engineer  
Mobile District  
Attn: CESAM-RD  
P.O. Box 2288  
Mobile, AL 36628-0001

District Engineer  
Vicksburg District  
Regulatory Branch  
Attn: CEMVK-OD-F  
4155 Clay Street  
Vicksburg, MS 39183-3435

Director  
Mississippi Dept. of Environmental Quality  
Office of Pollution Control  
P.O. Box 10385  
Jackson, MS 39289

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**17. In addition to the completed application form, the following attachments are required:*****Attachment "A" Drawings***

Provide a vicinity map showing the location of the proposed site along with a written description of how to reach the site from major highways or landmarks. Provide accurate drawings of the project site with proposed activities shown in detail. All drawings must be to scale or with dimensions noted on drawings and must show a plan view and cross section or elevation. Use 8 1/2 x 11" white paper or drawing sheet attached.

***Attachment "B" Authorized Agent***

If applicant desires to have an agent or consultant act in his behalf for permit coordination, a signed authorization designating said agent must be provided with the application forms. The authorized agent named may sign the application forms and the consistency statement.

***Attachment "C" Environmental Assessment (Coastal Area Only)***

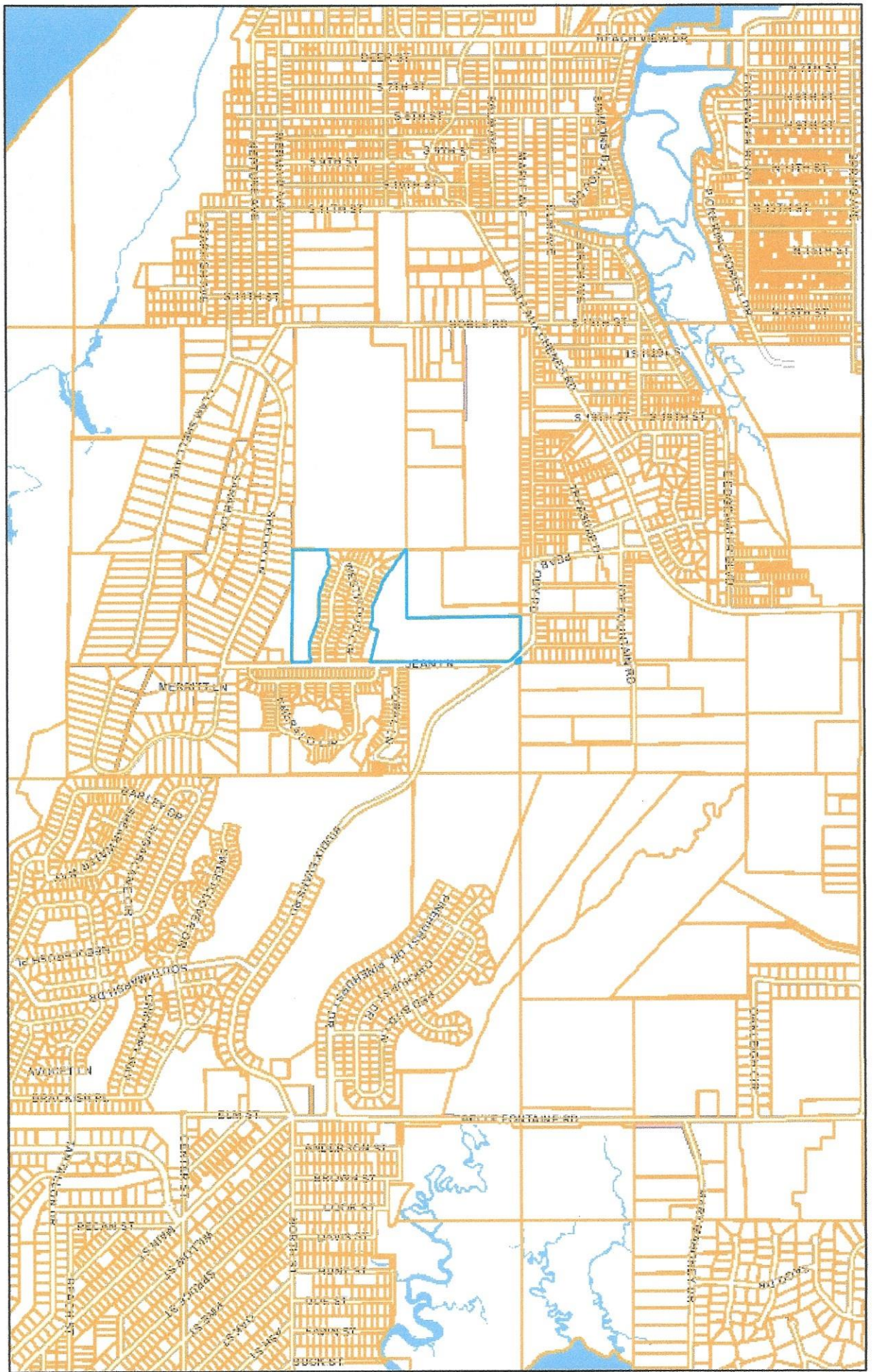
Provide an appropriate report or statement assessing environmental impacts of the proposed activity and the final project dependent on it. The project's effects on the wetlands and the effects on the life dependent on them should be addressed. Also provide a complete description of any measures to be taken to reduce detrimental offsite effects to the coastal wetlands during and after the proposed activity. Alternative analysis, minimization and mitigation information may be required to complete project evaluation.

***Attachment "D" Variance or Revisions to Mississippi Coastal Program (Coastal area only)***

If the applicant is requesting a variance to the guidelines in Section 2, Part III or a revision to the Coastal Wetlands Use Plan in Section 2, Part IV of the Rules, Regulations, Guidelines and Procedures of the Mississippi Coastal Program, a request and justification must be provided.

**Attachment "A" Drawings**

FIGURE. SITE LOCATION MAP WESTWOOD PHASE 2



January 26, 2024

Parcels PrimaryRoads

CenterLines Major

1:19,200

0 0.15 0.3 0.5 0.6 mi  
0 0.25 0.5 1 km

Jackson County GIS

FIGURE 2. WESTWOOD SUBDIVISION PHASE 2  
PROJECT LAYOUT, OCEAN SPRINGS, MS

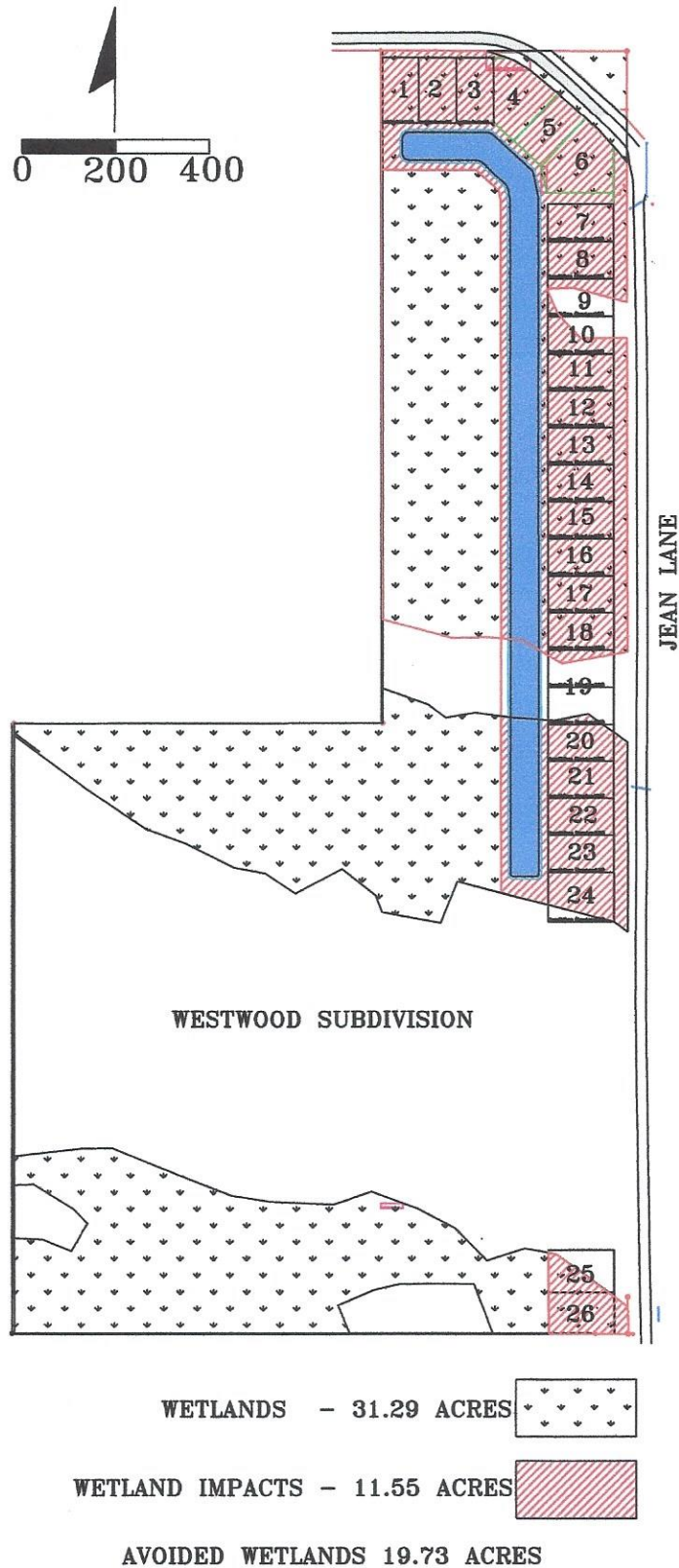
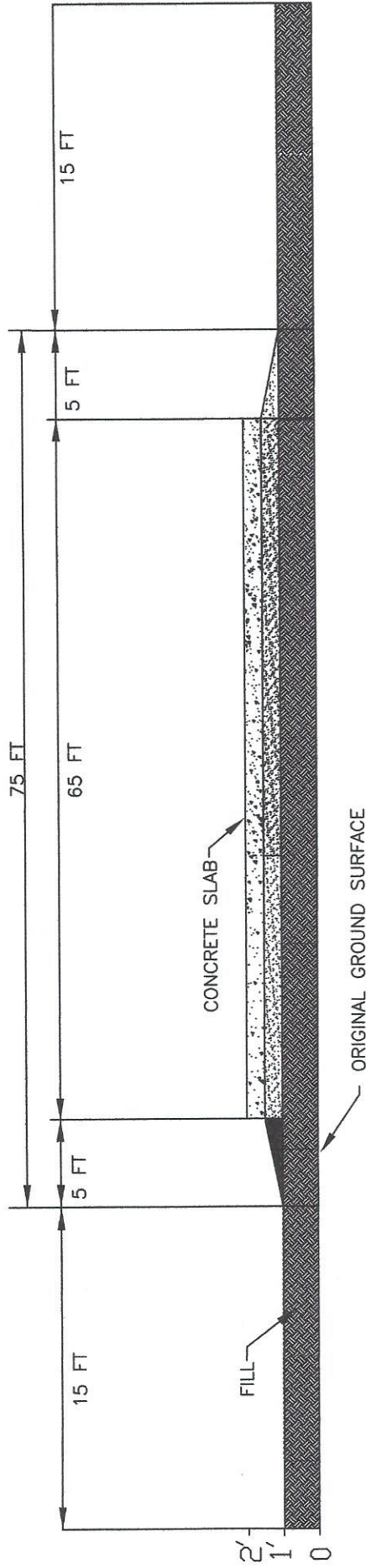




FIGURE 3. CROSS-SECTION OF TYPICAL LOT IN WETLANDS, WESTWOOD PHASE 2  
 SUBDIVISION PROJECT, JACKSON COUNTY, MS



CROSS-SECTION OF TYPICAL LOT IN WETLANDS  
 (VERTICAL SCALE IN FEET ABOVE GROUND SURFACE)

**SANDERS ENVIRONMENTAL, LLC**  
2305 Lewis Gate Drive, Gautier, Mississippi 39553

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Attachment A

Project Description

## **ATTACHMENT A**

### **PROJECT DESCRIPTION FOR WESTWOOD PHASE 2 SUBDIVISION, OCEAN SPRINGS, (JACKSON COUNTY, MS)**

The proposed project consists of the development of a 34.83 acre, 26 lot residential housing development located in the south Ocean Springs area of Jackson County, MS (Figure 1). The Westwood Phase 2 Subdivision is located in Section 12, Township 8 South, Range 8 West, and coordinates are 30.365755° and -88.738424. The proposed project site currently forested with a mixed pine/hardwood canopy with a dense sapling/shrub stratum. The project area is bordered by Biddix Road to the north and undeveloped acreage to the west, with Jean Lane on the east boundary and Westwood Phase 1 Subdivision to the south. The project area has recently been surveyed and has flagging marking the corners and boundary lines.

The total area of wetlands on the property (Part II, Attachment A, Figure 2) is 31.29 acres, with **11.55** acre is proposed to be permanently filled (Part I, Attachment A, Figure 2). The wetlands on the site consist of 31.29 acres of pine savanna wetlands.

Part II of this package consists of a permit application form, along with Attachments A (Project Description), B (Agent Authorization letter), and C (Environmental Assessment and Mitigation Plan). A Wetlands Rapid Assessment Procedure (WRAP) also has been performed, and a WRAP data form is provided herein.

#### **Project Design**

A plan view of the proposed lot layout is provided in Figure 2. Figure 3 shows a cross-section of a typical lot.

As shown in Figure 2, the lot layout maximizes the nonwetland acreage and impacts only the necessary wetland acreage. Due to the irregular shape and size of the nonwetlands, it is necessary to impact 11.55 acre of the wetlands which will allow the development of 26 lots and detention pond. The subdivision utilizes the western Jean Lane Road frontage therefore no other roads are required for this project. The 27 lots have access to public water and sewer which follow Jean Lane. The project will have detention which will follow the full western limits of the site in order to manage water runoff.

### **Wetland Impacts**

The spatial distribution of wetlands to be filled is shown on Figure 3. A total of 11.55 acre of impacted, LOW quality pine savanna wetlands are proposed to be permanently impacted by the project. The proposed wetland impacts consist of the filling of wetlands for the construction of 26 house lots and detention pond. A total of 19.73 acre of wetlands on the property will remain unaltered.

### **Best Management Practices**

Best management practices will be implemented during and following all construction activities. Silt fences and other appropriate materials will be installed to block erosion and sedimentation in wetlands outside the project area. Disturbed surfaces will be planted to grass mixtures, except in areas to be sodded. Planting and/or sodding will be undertaken as soon as possible after preparation of the project area.

Attachment B  
Agent Authorization Letter

SANDERS ENVIRONMENTAL, LLC  
2305 Lewis Gate Drive, Gautier, Mississippi 39553

AGENT AUTHORIZATION

I authorize the person(s) and/or company listed below to act as our agent regarding the U. S. Army Corps of Engineers 404 Permit at the location listed below:

Dana R. Sanders, Jr.  
Sanders Environmental, LLC  
(name of agent)

WESTWOOD SUBDIVISION PHASE 2

2305 Lewis Gate Drive  
Gautier, MS 39553  
(city, state, zip code)

SL COASTAL LLC - APPLICANT  
DENNIS STIEFFEL - POC  
BILOXI, MISSISSIPPI

228/623-9714  
Agent telephone number

Dennis Stieffel, Member  
Applicant's Name (Printed)

  
Applicant's Signature

1/26/2024  
Date

**SANDERS ENVIRONMENTAL, LLC**  
2305 Lewis Gate Drive, Gautier, Mississippi 39553

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Attachment C

Environmental Assessment and Wetland Mitigation  
Wetland Rapid Assessment Procedure (WRAP)  
Threatened/Endangered Species Survey  
Alternative Site Analysis

Environmental Assessment  
And  
Wetland Mitigation



## ATTACHMENT C

# ENVIRONMENTAL ASSESSMENT AND WETLAND MITIGATION PROPOSAL WESTWOOD PHASE 2 SUBDIVISION JACKSON COUNTY, MISSISSIPPI

This single family housing development will be constructed on a 34.83-acre tract located west of Jean Lane and north of Westwood Subdivision in the Ocean Springs area of Jackson County, Mississippi (See Figure 1).

### Scope of Project

The applicant proposes (Figure 2) the development of 34.83 acres which will be divided into 26 residential lots. The total project area has a large amount of wetlands which will be avoided with the proposed development utilizes the Jean Lane road frontage. The remaining 19.73 acres of wetlands will be avoided. The project includes 26 lots and detention pond.

The applicant will conform to all building codes and will construct the project to meet or exceed the base flood elevations that may be adopted by the City of Biloxi and/or the Jackson County Board of Supervisors. Sewer and water utilities are already available to the proposed project area.

### Current Environmental Status

The 34.83 acre tract is situated south of Biddix Road and west of Jean Lane. The subject property is mostly forested with a solid pine canopy and a very dense sapling/shrub stratum. The wetlands on the property are pine savanna wetlands which have 0-2 percent slope, wetland hydrology, hydric soils and wetland vegetation. The dominant vegetation in the tree stratum of the property has combinations of loblolly pine (*Pinus taeda*)(FAC), magnolia (*Magnolia grandiflora*)(FACU), black gum (*Nyssa sylvatica*)(FAC), and sweetbay (*Magnolia virginiana*)(FACW). The sapling/shrub stratum is dominated by bigleaf gallberry (*Ilex coriacea*)(FACW), farkleberry (*Vaccinium arboreum*)(FACU+), wax myrtle (*Morella cerifera*)(FACW), and titi (*Cyrilla racemiflora*)(FACW).

Dominant vegetation in the wetlands areas which would be impacted by the project include sweetbay (*Magnolia virginiana*)(FACW), black gum (*Nyssa sylvatica*)(FACW), ti-ti (*Cyrilla racemiflora*)(FACW), bigleaf gallberry (*Ilex coriacea*)(FACW), brushy bluestem (*Andropogon glomeratus*) (FACW), chain fern (*Woodwardia virginicus*)(OBL), and greenbrier (*Smilax laurifolia*)(FACW).

Soils of the site consist of Duckston in the nonwetlands Harleston soils in the wetlands. The Duckston soils are the constant soil found throughout the nonwetlands having sandy loam texture and 2-5 percent slope. The Harleston soil identified in the wetlands are fine sandy loam or silt loam and occur in 0-2 percent slope with hydrology at the surface.

The applicant cannot avoid the wetlands proposed to be filled and still construct the proposed project as 26 of the residential lots and a detention pond are affected in some way by wetlands. Wetlands will be avoided to the greatest extent possible in order to maximize the largest nonwetland acreage on the site. Wetland impacts will be minimized further by installing silt fences and hay bales around the project in the vicinity of offsite wetlands to prevent movement of fill material into offsite areas. Best Management Practices will be implemented during all phases of project construction. The applicant proposes to compensate for the wetland impacts by purchasing the required wetland mitigation credits from a bank approved by the Corps of Engineers.

### **Wetland Impacts of Proposed Project**

The proposed project will result in the discharge of fill material 11.55 acres of pine savanna wetlands within the project area (Figure 2). Impacts will involve the discharge of 2.0 feet of fill material, resulting in the elimination of all wetlands characteristics.

### **Proposed Mitigation for Wetland Impacts**

The proposed mitigation for wetland impacts associated with the proposed project in the Ocean Springs area of Jackson County, Mississippi is to provide compensatory mitigation for unavoidable wetland impacts.

Avoidance of Wetland Impacts. The plan view of the project shows that impacts to wetlands are unavoidable for this project; however the well planned drainage will allow for single-family homes to be constructed at this location, which is an area with a growing population, in great need of housing. No other configuration could be offered

that would result in fewer wetland impacts without reducing the scope of the project, which cannot be justified economically. The wetlands to be avoided are the highest quality of those occurring on the site and the wetlands proposed to be impacted are the lowest quality of those occurring on the site. Nonwetlands proposed to be avoided could not be incorporated into the project plan without increasing the acreage of wetland impacts.

Minimization of Wetland Impacts. It should be noted that there are 19.73 acres of wetlands on this tract which have been avoided. In addition, minimization of wetland impacts will be carried out by using best management practices. Moreover, over-seeding will be carried out in all areas where bare ground exists in order to minimize sediment loading of surface runoff. Silt fences will be used to prevent sedimentation.

Proposed Compensatory Wetlands Mitigation. The total area of wetlands proposed to be impacted within the project area is 11.55 acres (Figure 2 in Attachment A). Based on my best professional judgment, all 11.55 acres of the proposed wetlands to be impacted by this project have **LOW** wetlands quality, due to past management activities and development on the adjacent areas. In addition, fires will continue to be excluded from the degraded pine savanna wetlands, thus preventing redevelopment of high quality pine savanna wetlands. The total number of required wetland credits to offset impacts to the low quality wetlands at a ratio of 2:1 is **23.1 wetland mitigation credits.**

**SANDERS ENVIRONMENTAL, LLC**  
2305 Lewis Gate Drive, Gautier, Mississippi 39553

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## Wetland Rapid Assessment Procedure

**SANDERS ENVIRONMENTAL, LLC**

2305 Lewis Gate Drive, Gautier, Mississippi 39553

**WETLAND RAPID ASSESSMENT PROCEDURE**

- PROPOSED
- EXISTING CONDITIONS

COUNTY: JACKSON PROJECT DATE REVIEWER FLUCCS CODE  
 APP. #: WESTWOOD PHASE 2 SUBDIVISION 1/22/2024 DANA SANDERS JR WETLAND TYPE:  FORESTED  Non-Forested

LAND USE CATEGORY	WETLAND AREA		SECONDARY IMPACTS		MELALEUCA INVASION >50%
SINGLE FAMILY RESIDENCE	31.29	ACRES	<input type="checkbox"/> NO <input type="checkbox"/> YES	%= 0	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
	11.55	ACRES OF IMPACT	0	ACRES	

WILD LIFE UTILIZATION   
 WETLAND CANOPY   
 WETLAND GROUND COVER   
 HABITAT SUPPORT / BUFFER

**WRAP SCORE**  
47.22%

BUFFER TYPE	SCORE	% AREA	SUB TOTAL
Buffer nonexistant	0	50	0
Undeveloped Acreage	2	50	1
			0
			0
			0

FIELD HYDROLOGY   
 WATER QUALITY INPUT & TREATMENT

LAND USE CATEGORY	SCORE	% AREA	SUB TOTAL
LOW VOLUME HIGHWAY	2	50	1
Undeveloped Areas	3	50	1.5
			0
			0
			0
			0
LU TOTAL			2.5

PRETREATMENT CATEGORY	SCORE	% AREA	SUB TOTAL
WET DETENTION WITH SWELLS	2.5	100	2.5
			0
			0
			0
			0
PT TOTAL			2.5

**WILDLIFE UTILIZATION**  
 Minimal evidence of wildlife usage, Wetland located adjacent to road and dense residential development.

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**WETLAND CANOPY**  
 Percent cover of tree/shrub stratum 50-75 percent.

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**WETLAND GROUND COVER**  
 Limited number of target herbaceous pine savanna species present due to canopy cover.

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**HABITAT SUPPORT/BUFFER**  
 Wetland has no adjacent buffer on 50 percent of site due to adjacent road , the remaining 50 percent has adjacent buffer which is undeveloped acreage with limited food sources.

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**FIELD HYDROLOGY**  
 HYDROLOGY SUFFICIENT TO MAINTAIN A VIABLE WETLAND SYSTEM, BUT ROAD DITCHES AND ADJACENT ROAD BED ARE HAVING AN AFFECT ON PLANTS.

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**WQ INPUT & TREATMENT**  
 INPUT: LOW VOLUME HIGHWAY TREATMENT: WET DENTION WITH SWELLS

## Threatened/Endangered Species Survey

**SANDERS ENVIRONMENTAL, LLC**  
2305 Lewis Gate Drive, Gautier, Mississippi 39553

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January 4, 2024

Dennis Stieffel  
SL Coastal  
1306 Shriners Blvd Suite C  
Biloxi, MS 39532

RE: Survey for Federally Listed Species for Westwood Phase 2 Subdivision Located in the Ocean Springs area of Jackson County, Mississippi.

Dear Mr. Stieffel:

This letter will serve as my report for the above captioned survey. I visited the site recently and performed an Endangered Species Survey per your request and to satisfy the requirement for your 404 Permit on the 39.83 acre tract which is proposed west of Jean Lane and south of Biddix Road. The study area is located in Section 12, Township 8 South, Range 8 West at 30.368124° North, -88.737681 West.

Terrestrial species that are federally listed under the Endangered Species Act of 1973, as amended and that may occur in this part of Jackson County Mississippi, include the following:

Red-cockaded woodpecker (*Picoides borealis*)- Endangered  
Louisiana quillwort (*Isoetes louisianensis*)- Endangered  
Gopher tortoise (*Gopherus polyphemus*)- Threatened  
Louisiana Black Bear (*Ursus americanus luteolus*) - Threatened  
Mississippi Sandhill Crane (*Grus canadensis pulla*) - Endangered  
Alabama Red Bellied Turtle (*Pseudemys alabamensis*) - Endangered  
Dusky Gopher Frog (*Rana sevosa*) - Endangered

The study area consists of 39.83 acres which has dense forested pine savanna wetlands and pine savanna uplands. The parcel is bordered by Jean Lane to the east, Biddix Evans Road to the north, undeveloped land to the west and Rosewood Subdivision to the south. Soils on the study area consist of Harleston (0-2 percent slope) and Duckston (0-2 percent slope). The property consists of 31.29 acres of wet pine savanna and 3.54 acres of pine savanna nonwetlands. The nonwetlands on the property are situated on a ridge located in the south portion of the property which lies west to east. The entire study area has a dense sapling/shrub stratum consisting of big leaf holly (*Ilex coriacea*)(FACW) and yaupon (*Ilex vomitoria*)(FAC).

Of the listed species above, the Gopher Tortoise is the only one that is known to occur in the local area. No vegetation such as turkey oak (*Quercus laevis*), pore joe (*Diodea teres*), prickley pear (*Opuntia sp.*) or gopher apple (*Licania michauxii*) were found on the site or in any surrounding areas. The soils on the site are Poarch which is a marginal soil

**SANDERS ENVIRONMENTAL, LLC**

2305 Lewis Gate Drive, Gautier, Mississippi 39553

for gopher tortoise habitat. Per my field survey, a 100 percent inspection of the property, my findings are that there are no gopher tortoises on the site.

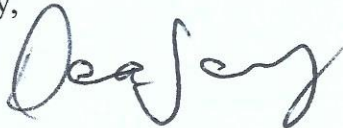
The red-cockaded woodpecker requires over-mature live pine timber for nesting/roosting cavities. The larger saw timber on this site was inspected for evidence of roosting/nesting cavities and no such evidence was found. This species uses younger (i.e., 10 DBH+) pine timber as foraging substrate, which does occur on the site. However, any small patches of timber that could be considered as potential foraging substrate are disconnected by 0.25 miles or more of open space from any potential adjacent potential habitat. Consequently, this species cannot be considered as using any aspect of the project site as a supporting habitat element, and accordingly requires no further consideration to insure potential development activities do not adversely affect the species.

The Louisiana quillwort occurs in lower coastal plain streams (locally termed "blackwater" or "bayhead streams"). Some wetlands on the site have the specific habitat features and, in particular, water flow characteristics that are prerequisite to occurrence of Louisiana quillwort. Other habitat features that include species composition, canopy closure and overflow topography are well documented as crucial aspects of known occupied quillwort habitat in the lower coastal plain. The conclusion of a quillwort survey conducted on this site on August 31, 2017 is that suitable habitat for quillwort does not exist on the study area.

A 100 percent ESA was performed on this site for any species considered Threatened or Endangered, as mentioned above. My findings are that none are present, nor does habitat exist for the species listed above.

I trust this addresses any concerns you or others may have with regard to your proposed use of the land and compliance with Section 7 of the Endangered Species Act of 1973, as amended. If you or others have any questions about this report, please let me know.

Sincerely,



Dana R Sanders Jr.



FIGURE. SITE LOCATION MAP WESTWOOD PHASE 2

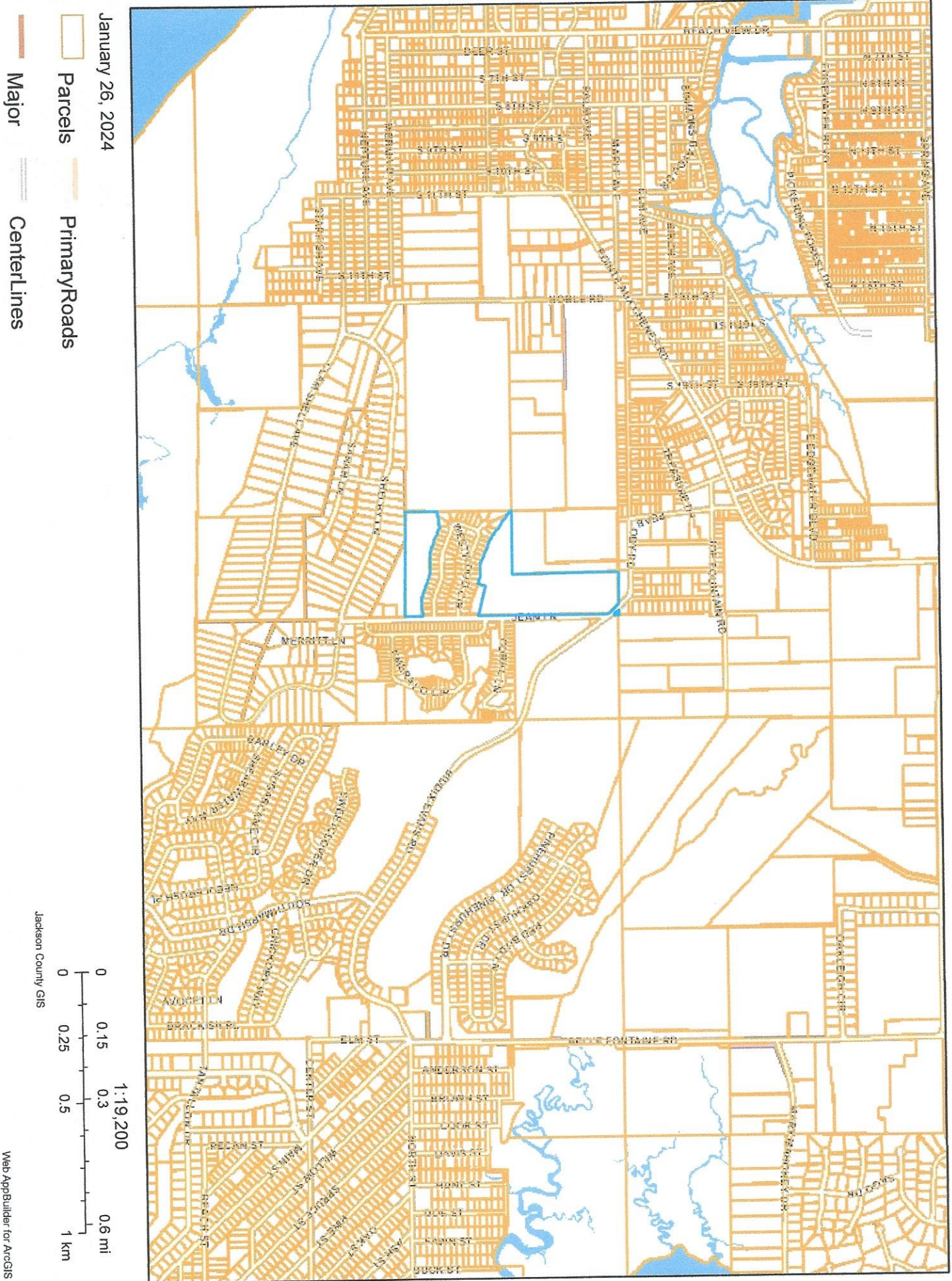
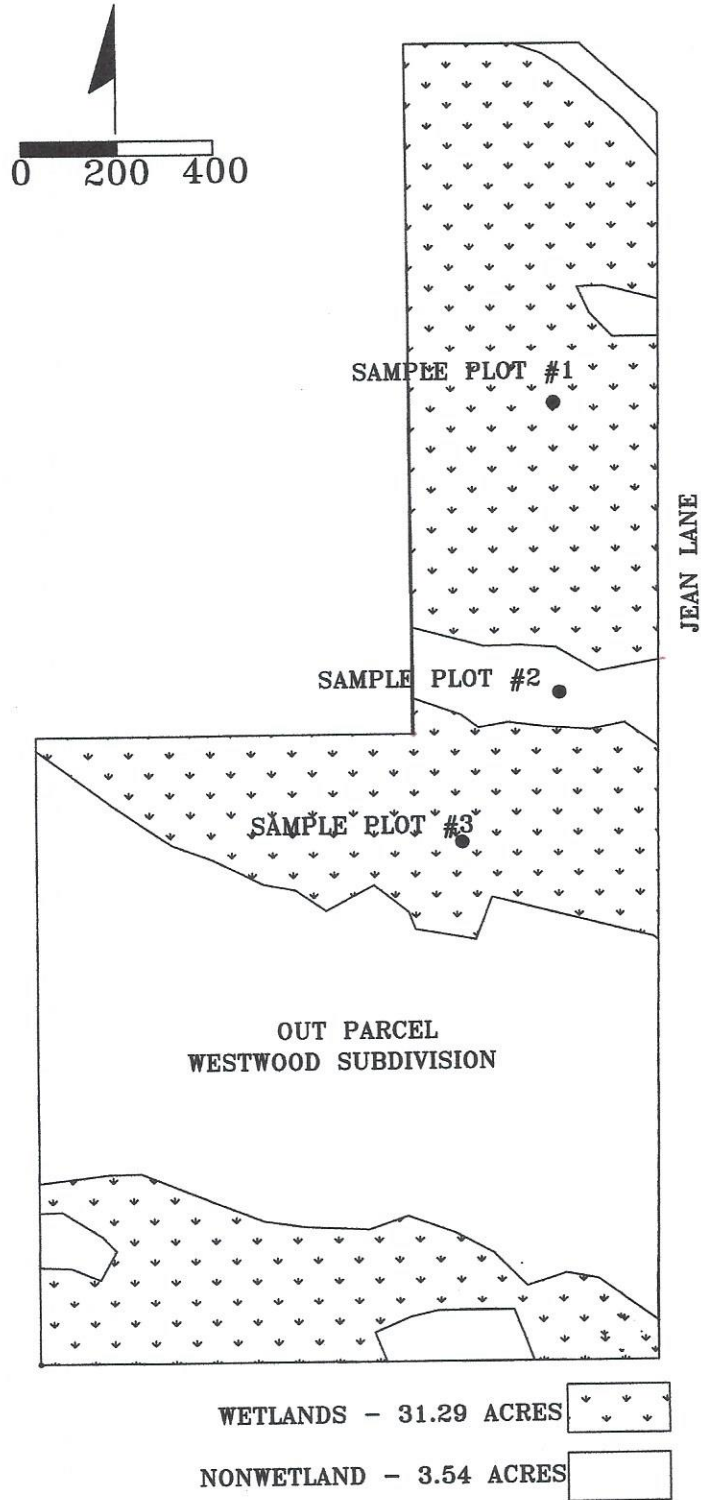
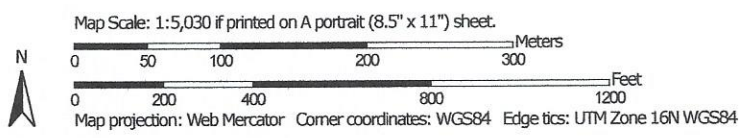


FIGURE 2. WESTWOOD SUBDIVISION PHASE 2  
WETLAND DELINEATION MAP, OCEAN SPRINGS, MS



Soil Map—Jackson County, Mississippi  
 (JEAN LANE SUBDIVISION PROPERTY OCEAN SPRINGS, MISSISSIPPI)



## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
328	Harleston fine sandy loam, 0 to 2 percent slopes	43.2	75.4%
365	Duckston sand, 0 to 2 percent slopes	14.1	24.6%
<b>Totals for Area of Interest</b>		<b>57.3</b>	<b>100.0%</b>

**SANDERS ENVIRONMENTAL, LLC**  
2305 Lewis Gate Drive, Gautier, Mississippi 39553

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## Alternative Site Analysis

**SANDERS ENVIRONMENTAL, LLC**

2305 Lewis Gate Drive, Gautier, Mississippi 39553

**ALTERNATIVES ANALYSIS FOR  
WESTWOOD SUBDIVISION PHASE 2 PROJECT  
JACKSON COUNTY, MISSISSIPPI**

An analysis of alternative project designs (alternatives analysis) was conducted to determine whether or not an alternative site or more practicable project design could be chosen or implemented for construction of the proposed Jean Lane Subdivision (Site Number 3 on Figure 1). When considering an alternatives analysis, three approaches are necessary: (1) No-Project alternative; (2) Offsite alternatives; and (3) Onsite alternatives.

No-Project Alternative

A No-Project alternative means that the property would remain undeveloped, more or less in its present condition with 34.83 acres of the property consisting of nonwetlands with overgrown pine savanna wetlands. Dominant species of wetlands on the site include black gum (*Nyssa sylvatica*)(FAC), sweetbay (*Magnolia virginiana*)(FACW), red maple (*Acer rubrum*) (FAC), wax myrtle (*Morella cerifera*) (FAC), titi (*Cyrilla racemiflora*) (FACW), inkberry (*Ilex glabra*)(FACW), loblolly pine (*Pinus taeda*)(FAC), black berry (*Rubus arvensis*)(FAC), and greenbrier (*Smilax laurifolia*)(FACW). Details of the plant community composition are provided in Part I of this permit application. The nonwetlands of the property consist of a narrow nonwetland terrace located west of the hardwood drain which flows through the east portions of the property. The nonwetland has combinations of water oak (*Quercus nigra*)(FAC), black gum (*Nyssa sylvatica*)(FAC), farkleberry (*Vaccinium arboreum*)(FACU), and big leaf holly (*Ilex coriacea*)(FACW).

While the No-Project alternative would maintain the status quo, selection of this alternative would also deprive the landowner of many economically-beneficial uses of the property in an area rapidly being developed for human habitation. This site is in a highly desirable area for development with subdivisions within close proximity

Conclusion

The No-Project alternative was considered and rejected due to the location and amount of contiguous nonwetlands available and the desirable location of this property.

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### Consideration of Offsite Alternatives

#### Selection Criteria

Factors associated with selecting the subject site for this project from a group of potential sites include the targeted client population, the general location (target zone) considerations, size of prospective property, accessibility, and environmental considerations, as well as availability and cost.

Target Service Zone. The target service zone for the project is the central portion of the Mississippi Gulf Coast. The selected location needs to be in an area with good access to major transportation corridors. This residential project is designed to provide residential lots to the citizens of the Mississippi Gulf Coast. There is a growing need for residential lots in the area of the central Mississippi Gulf Coast, specifically, the within the areas which new schools have been recently built due to Hurricane Katrina. In the case of this project, the newly constructed Ocean Springs High School is the center of this analysis as private residence purchasing opportunities are a premium within close proximity of this school.

Location and Accessibility. The selected location must be easily accessed from a main thoroughfare in the local area. As mentioned above, the focus of this location criterion is the proximity to major transportation routes and Ocean Springs High School located at the intersection of Old Spanish Trail and Belle Fountain Road.

Environmental and Cultural Concerns. Major environmental and cultural concerns to be considered in site selection consist of the quantity and quality of wetlands that may be present, the potential presence of threatened or endangered species, and the potential presence of archeological resources. The presence of large quantities of higher quality wetlands, the presence of threatened or endangered species, or the presence of known archeological resources could effectively eliminate a site from further consideration.

Site Availability. To be considered as an alternative, a site must be available for purchase (either owned or available for purchase). A site that meets the above criteria but is not available for purchase would not be a viable alternative. Although land in local ownership is considered as a potential alternative in this analysis, in reality

landowners are increasingly unwilling to sell because of their own future goals for the land value to appreciate, lack of consensus among joint-owners, or sentimental ties to the land. A presumption was that any site presently developed, under development, or for which a recently-developed plan is known to exist, would not be available. Finally, sites

owned by federal or state government agencies were excluded from consideration as being unavailable.

Cost. The estimated cost to develop the project becomes a factor in the analysis. As previously stated, the availability of the funding was for construction of residential lots for residents of choosing to live in the Mississippi coast region. Therefore, cost is a legitimate criterion for this analysis. If the development costs become excessive, the project may be unfeasible. One development factor is land cost. The project could be unfeasible if high-priced land were to be used for the development. This factor eliminates many potential tracts due to the great increase in land values and the amount of development that has occurred in the area during the past 15 years. Another factor that weighs significantly into the development cost is the wetland mitigation cost. The cost of wetland mitigation must be added to the cost of the land to obtain a realistic cost to develop an acre of wetlands. Other costs (i. e., storm water detention basins, utilities, etc.) must also be considered.

#### Sites Considered

Several sites in the area were found to be potentially available. Four sites were considered in the target area (Figure 1), with many of the more environmentally-compatible sites already developed. Upon inspection of all usable land in the area, undeveloped parcels with usable areas (nonwetlands) have been utilized leaving parcels with larger wetland acreages within very desirable commercial/residential corridors.

Potential sites were selected from a 1987 US Geological Survey topographic map, Google Earth and Jackson County Parcel Maps. Wetland evaluations were based on my knowledge of the parcels, as I have been on most of the undeveloped in this area. NRCS Web Soils which was used to determine the percent of hydric soil mapping units. The following specific sites were considered:

1. Jerry Goux Property: Located east of Lakeview Drive in Section 25, Township 7 South, Range 8 West (Parcel Identification Number 61104029.000). This parcel is situated east of an existing subdivision east of Lakeview Drive.
2. Bradford O'Keefe Funeral Home Property: Located south of Groveland Road in Section 26, Township 7 South, Range 8 West (Parcel Identification Number 60126020.050). This parcel consists of 17 acres.
3. Westwood Subdivision Phase 2 Property: Located west of Jean Lane in Section 12, Township 8 South and Range 8 West (Parcel Identification Number 03112020.050). This property consists of 34.83 acres.



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4. Jerry Goux Property: Located south of Alternate Site #1, this Parcel is in Section 25, Township 7 South and Range 8 West (Parcel Identification Number 61104028.000). This parcel consists of 20 acres.

### Site Evaluations

Each selected site was subjectively evaluated using all available data, including topographic maps, aerial photographs, online Jackson County Soil Survey, wetland delineation reports when available, my personal knowledge of the area, and an onsite visit. Any examined site deemed to be unavailable for purchase was eliminated from further consideration because it is no longer a viable option. After rating each site as to HIGH, MODERATE, or LOW with respect to the criteria previously identified, the evaluated sites were ranked from lowest to highest, in which the highest-ranked site was considered as most suitable for the project.

Following are the evaluations of each of the 4 sites considered in this analysis:

A. Site 1. Jerry Goux Property: Located east of Lakeview Drive in Section 25, Township 7 South, Range 8 West (Parcel Identification Number 61104029.000). This parcel is situated east of an existing subdivision east of Lakeview Drive. This tract is located north of HWY 90 and east of Lakeview Drive. The property has an over story of pine with a very dense canopy of sapling/shrub consisting of species indicative of wetland vegetation such as big leaf holly, titi, red maple, black gum, wire grass and pitcher plant. The property is bordered by a subdivision to the west and north with undeveloped acreage to the south and east.

- a. Target Service Zone: HIGH (3). The area is in a favorable location for reaching the target client population (potential residents of the central Mississippi Gulf Coast); The property is located 0.20 mile from HWY 90 and 1.30 miles from Ocean Springs High School making for a good location for this parcel.
- b. Accessibility: Moderate (1). This parcel is situated south and east of existing development; however this parcel does not front any roads, making access difficult. Access to this parcel would have to be acquired from outside the property in order to utilize Lakeview Drive or Whisperwood Lane to the north.
- c. Environmental Concerns: LOW (1). This 20-acre parcel has soils that are common to wetland and soils which might have nonwetland inclusions. A field visit to this site revealed the site is very flat with very little slope

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Soils on the study include Stough and Bayou, both of which are common in wet pine savanna along the Gulf Coast. Due to the habitat conditions, there are no conditions for gopher or quill wort on this site as this property lacks hardwood draianges or uplands which both occur. Based on my field survey and soils data, I find that the majority of this property is Jurisdictional Wetland.

- d. Site Availability: HIGH (3). The site is presently owned by a private landowner and does not have any current obligations. This site could be purchased.
- e. Cost: LOW (1). This site is available, however is located within a very desirable area close to HWY 90 and very close proximaty to Walmart and other high density commercial area which makes this property very expensive for residential development. In addition, due to the large amount of wetlands on the site, development of this parcel would command very high Wetland Mitigation and Permitting cost associated with a 404 Individual Permit. In order to accommodate the proposed project footprint, 10.41 acres of wetlands would be impacted which would cost the applicant approximately \$125,000.00 and a year of time for permitting.
- f. Ease of Development: LOW (1). Due to the access issues of this parcel and large amount of wetlands, Development would be difficult on this site. Access from Lakeview Drive and/or Whisperwood Lane would have to be negotiated and purchased and lengthy wetland permit obtained. Due to the large amount of wetland, some portions of the site might require excavating and additional fill in order to compensate for the wet conditions in the wetter portions of the site.
- h. Total Score: 10.

B. Site 2. Bradford O'Keefe Funeral Home Property: Located south of Groveland Road in Section 26, Township 7 South, Range 8 West (Parcel Identification Number 60126020.050. This parcel consists of 17 acres. The parcel is located at the intersection of Groveland Road and Parktown Drive and has residential development to the east and west, Goveland Road along the north line and undeveloped acreage to the south.

- a. Target Client Population: HIGH (3). The area is in a favorable location for reaching the target client population (potential residents of the central Mississippi Gulf Coast); The property is 800 feet from the Ocean Springs Walmart and other commercial/retail centers, 0.25 mile from HWY 90 and 2.30 miles from Ocean Springs High School. This property is very well position in regards to location.

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- b. Accessibility: HIGH (3). This parcel is situated at the intersection of Groveland Road and Parktown Drive which makes for easy access to the property.
  
- c. Environmental Concerns: LOW (1). According to the NRCS WebSoils and my field visit of this site, approximately 7 acres of this site has nonhydric soils mapping with the remaining 10 acres having hydric soils. The nonwetland areas on the site are situated along the eastern limits of the property and are adjacent to residential development. These nonwetland areas have Harleston soils at a 2-5 percent slope. There are approximately 8 acres which could have nonwetland in the southeast and southern portions of the property. Due to the wet nature and soils on this property, there is no habitat that will support threatened-endangered species on the site.
  
- e. Site Availability: HIGH (3). This property is presently owned by an individual and could be purchased.
  
- f. Cost: LOW (1). Land development and mitigation costs would result in a relatively high cost due to the high cost of the property, the high mitigation cost and the high cost to develop due to the wetland acreage. Wetland mitigation for 25 acres of low quality pine savanna wetland would cost approximately \$300,000.00 which would not be feasible for a residential development.
  
- g. Ease of Development: LOW (1). Site preparation would be the biggest cost from a development standpoint as much of the wetlands would need mucking out with topsoil building back to preconstruction shape. Permitting time which would take 10 months to a year would also delay this project greatly and add to the difficulty of development.
  
- h. Total Score: 12.

C. Site 3. Westwood Subdivision Phase 2 Property: Located west of Jean Lane in Section 12, Township 8 South and Range 8 West (Parcel Identification Number 03112020.050). This property consists of 34.83 acres.

- a. Target Client Population: HIGH (3). The area is in a favorable location for reaching the target client population (potential residents of the central Gulf Coast. This location is within the desirable Ocean Springs School District.
  
- b. Accessibility: HIGH (3). This site is adjacent to Jean Lane which intersects Biddix Road leading to Belle Fountain Road. This site is 2 miles from HWY 90 and Ocean Springs High School.

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d. Environmental Concerns: Moderate (1). The total property is 34.83 acres however the project only utilizes the road frontage along the west side of Jean Lane which has no Endangered Species or Cultural Resource issues. The 19.73 acres of avoided wetlands on the site will be avoided.

e. Site Availability: HIGH (3). The parcel is currently owned by the applicant.

f. Cost: MODERATE (2). The cost associated with development will be marginal as the property is currently owned by the applicant and water/sewer is readily available. Mitigation cost will inflate the project however there are no other issues with the property.

g. Ease of Development: MODERATE (2). As mentioned above, this property is adjacent to Jean Lane and will be readily accessed and will have good access to utilities. The wetlands required for impact are wet pine savanna which has a mineral, sandy loam soil which is fairly easy to clear and fill without needing to muck out with heavy equipment.

h. Total Score: 14.

D. Site 4. Jerry Goux Property: This is the second property owned by Jerry Goux, Located south of Alternate Site #1, this Parcel is in Section 25, Township 7 South and Range 8 West (Parcel Identification Number 61104028.000). This parcel consists of 20 acres.

a. Target Client Population: HIGH (3). The area is in a favorable location for reaching the target client population (potential residents of the central Mississippi Gulf Coast); The property is located 0.20 mile from HWY 90 and 1.30 miles from Ocean Springs High School making for a good location for this parcel.

b. Accessibility: MODERATE (2). This site is not adjacent to any major roads or streets, however the land owner does own a narrow easement which is located along the east property line. This easement extends southward to HWY 90 giving the property owner access to HWY 90. This easement currently has no roadway or trail and is forested.

d. Environmental Concerns: LOW (1). The property is 20 acres all of which has soils which are hydric. Field varication of the soils data reviled that nearly 100 percent of the property is Jurisdictional Wetland and would require permitting in order to develop any part of this property.

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e. Site Availability: HIGH (3). The parcel is owned by an individual and is available for purchase.

f. Cost: LOW (1). There are factors which make this parcel a very expensive option for this project. The location of the property in relation to HWY 90 makes this a viable option for commercial development which would command a high price. Wetland impacts would require a large wetland mitigation purchase. The wetland mitigation required in order to account for the impacted wetlands would further elevate the overall cost of the project. In addition to the purchase cost and mitigation cost, there is a time factor to consider as an Individual Permit would drag the project along for at least a year

during which time the applicant would have to pay high cost on bank loans before construction can begin.

g. Ease of Development: LOW (1). As mentioned above, development of this property will require a great deal of wetland impacts which will result in enduring a wetland permit and clearing and preparing wetland areas. Some of this acreage will require mucking out and considerable fill before any project can be implemented. The large amount of wetlands will make this property very difficult to develop.

h. Total Score: 11. Conclusion:

After evaluating three potential alternative sites, they were ranked as follows:

<u>Site Number</u>	<u>Score</u>	<u>Rank</u>
Site 1	10	4
Site 2	12	2
Site 3	14	1
Site 4	11	3

As shown above, Site 3 scored the highest of the three sites ranked with respect to evaluation factors. Site 3 is the subject site for which a Section 404 Individual Permit has been applied.

Since **Site 3** (Figure 1), which is the site for which a Section 404 Wetlands permit was applied, scored highest with respect to the evaluation, I concluded that Site 3 is the best-suited, most practicable site alternative for locating the proposed project.

#### Consideration of Onsite Alternatives

Onsite alternatives must consider the possibility that an alternative project configuration would achieve the same or similar project goals as the proposed project with fewer environmental impacts. Due to the location of the site, the high value of the property, and the configuration of wetlands and nonwetlands on the property, the applicant desired to include as much of the total nonwetlands acreage of the property in the project footprint as possible and practicable, while avoiding the maximum amount of wetlands.

#### Overall Conclusions

The project would best serve the target population in the most environmentally practicable, cost effective manner using the proposed site (Site 3 on Figure 1) and constructing the current proposed configuration as shown in Figure 2 herein (also Part II, Attachment A) resulting in 11.55 acre of permanent wetland impacts.

# ALTERNATIVE SITE #1 GOUX PROPERTY

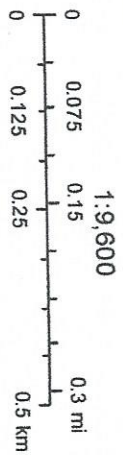


Bus: 228-623-9714 e-mail: drsawet@bellsouth.net

November 8, 2018

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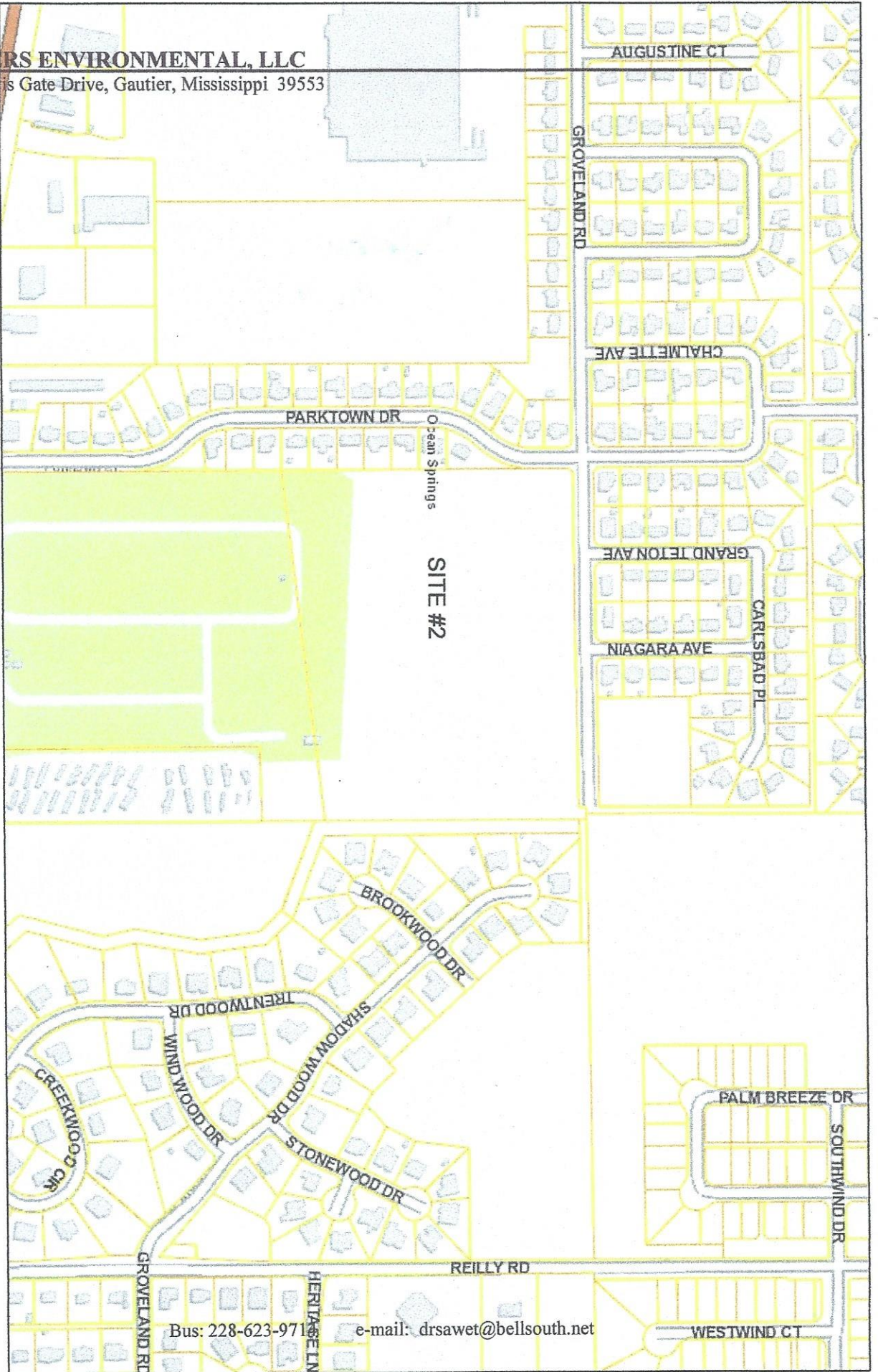
-  Parcels
-  Major Roads
-  City Limits
-  Centerlines
-  Primary Roads



Jackson County GIS  
Sources: Esri, HERE, Garmin, Intermap, Increment P Corp., GEBCO, USGS,  
Web AppBuilder for ArcGIS

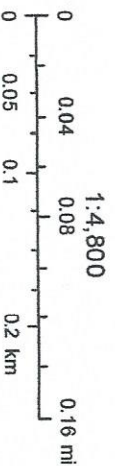
County GIS | Sources: Esri, HERE, Garmin, Intermap, Increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri, Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community |

# ALTERNATIVE SITE #2 BRADFORD O KEEFFE PROPERTY



November 8, 2018  
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 105 Lewis Gate Drive, Gautier, Mississippi 39553

- Parcels
- Centerlines
- City Limits
- Major
- Primary Roads



Bus: 228-623-9711 e-mail: [drsawet@bellsouth.net](mailto:drsawet@bellsouth.net)

Jackson County GIS  
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,  
 Web AppBuilder for ArcGIS



# ALTERNATIVE SITE #4 GOUX PROPERTY



County GIS | Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community |

Web AppBuilder for ArcGIS

Part I  
Wetland Delineation Report  
Preliminary Jurisdictional Determination

**SANDERS ENVIRONMENTAL, LLC**  
2305 Lewis Gate Drive, Gautier, Mississippi 39553

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## Wetland Delineation Report

January 18, 2018

SL Coastal  
Dennis Stieffel  
1306 Shriners Blvd Suite C  
Biloxi, MS 39532

RE: Wetland Delineation Report for Westwood Phase 2 Property located in the Ocean Springs area of Jackson County, MS.

Dear Mr. Stieffel:

This letter constitutes my final report on a wetland identification/delineation study you requested on a 34.83-acre site located in the Ocean Springs area of Jackson County, MS. The purpose of the study was to identify portions (if any) of the property that qualify as wetlands or other "Waters of the United States" pursuant to Section 404 of the Clean Water Act of 1977 (as amended), and to delineate their boundaries. Field work for the study was conducted in December, 2024.

#### **SITE DESCRIPTION**

The study area consists of 34.83-acres, which is located in southern Ocean Springs within Jackson County west of Jean Lane in Section 12, Township 8 and Range 8 and at 30.368124 N/-88.737681 W. The property is forested and is situated south of Biddix Evans Road, west of Jean Lane and North of Westwood Subdivision. The acreage is predominately pine with mixed pine/hardwood in the nonwetland acreages.

The standard for wetlands used in this study conforms to the wetland definition and procedures described in the 1987 Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987), as modified and clarified by 1991 and 1992 Memoranda from the Office, Chief of Engineers and the 2010 Supplement for the Atlantic and Gulf Coastal Plain, herein further called "Supplement" (U. S. Corps of Engineers, 2010). Under these procedures, an area is a wetland if positive wetland indicators are in evidence for each of three parameters or criteria -- hydrophytic vegetation, hydric soil, and wetlands hydrology. If positive wetland indicators cannot be ascertained for any one of the three parameters, the area is a nonwetland.

Routine wetland identification/delineation procedures described in Environmental Laboratory (1987) were applied at representative sampling stations. Sampling stations were chosen as representing typical conditions of a relatively large area of homogeneous topography, vegetation, soil, and hydrologic conditions.

At each sampling station, the vegetation was described by subjectively estimating the dominant species in each stratum of the vegetation. Hydrophytic vegetation was considered to be present when more than 50 percent of the cumulative dominant species in all strata at a sampling station had a wetland indicator status of FACULTATIVE, FACULTATIVE WETLAND, and/or OBLIGATE (USDA-NRCS, 2012). This information was noted on the vegetation section of the data form (See Appendix A).

The upper portion of the soil profile at each sampling station was described and recorded on the data sheet for that sampling station. The soil was considered to be hydric when one or more indicators of hydric soil appearing on the Supplement data form were observed in the soil at a sampling station.

Hydrologic conditions of each site were considered. Evidence was sought regarding the presence of any indicator of wetland hydrology listed in The 1987 Corps Manual and the Supplement. If any primary indicator or two secondary indicators were present, the area at the sampling station was considered to have wetland hydrology.

The boundaries of areas qualifying as wetlands were flagged using pink "WETLAND DELINEATION" flags. Flags were placed at the highest (elevationally) point along the slope where indicators were present for all three parameters. The wetland delineation flags were surveyed by a local surveyor and D. R. Sanders and Associates edited the Wetland Delineation Map.

## **RESULTS AND DISCUSSION**

### **General**

Portions of the property qualifying as wetlands and nonwetlands are provided on Figure 2. Also, locations of sampling stations are marked on Figure 2. Conditions at each sampling station are described on data sheets contained in Appendix A.

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### Wetlands

The wetlands identified on the study area are pine savanna wetland. The pine savanna wetlands have a mature canopy of pine with a very dense sapling/shrub stratum due to lack of fire. Characteristics of the wetland areas are described on Data Sheets 1 and 3 (See Appendix A and Figure 2). The data sheet is representative of conditions at a given location. The vegetation in these wetland samples plot are dominated in the tree stratum by loblolly pine (*Pinus taeda*)(FAC), sweetbay (*Magnolia virginiana*)(FACW), and black gum (*Nyssa sylvatica*)(FAC). The sapling stratum is dominated by black gum (FAC), red maple (*Acer rubrum*)(FAC), and sweetbay (FACW). The shrub stratum has combinations of big leaf holly (*Ilex coriacea*) (FACW), titi (*Cyrilla racemiflora*) (FACW), ink berry (*Ilex glabra*)(FACW), red bay (*Persea borbonia*)(FACW) and yaupon (*Ilex vomitoria*)(FAC). The herbaceous stratum in the sample plots has species that includes chain fern (*Woodwardia virginicus*)(OBL), club moss (*Lycopodium appressum*)(FACW), greenbriar (*Smilax laurifolia*), brushy bluestem (*Andropogon glomeratus*)(FACW), yellow eyed grass (*Xyris ambigua*)(OBL), and pitcher plant (*Sarracenia flava*)(OBL).

The wetland acreage on the study area is mapped Harleston and Duckston with most of the wetlands having Harleston soils. These soil series are typically found within depression areas in wetlands. The soils in the wetland sample plots are fine sandy loam and silt loam, and have a 2.5Y3/1 soil color with 10YR5/6 mottles which are consistent with the hydric soils. The primary indicator or hydric soils is Depleted Matrix (B2).

Primary wetland hydrology indicators found at the wetland sampling sites include high water table (A2), saturation (A3), watermarks (B1), sediment deposits (B2), and oxidized rhizospheres on living roots (C3).

Since the area at the wetland sampling stations exhibit wetland indicators for all three wetlands criteria, these and all similar areas qualify as wetlands. A total of 31.29 acres of the subject tract (Figure 2) meet the three technical criteria for wetlands.

### Nonwetlands

Nonwetlands make up 3.54 acres of the study area. The nonwetlands have 2-5 percent slope and forested with a 100 percent canopy of hardwoods and pine with a very dense understory of sapling/shrubs. Nonwetland plant communities of the property are typified by the description on Data Sheet 2 (see Appendix A and Figure 2). The nonwetlands of this site have Duckston sandy loam soils which exhibit nonhydric characteristics. The vegetation of the nonwetland-sampling plots are dominated in the tree and sapling stratum by loblolly pine (FAC), water oak (*Quercus nigra*)(FAC), black gum (FAC) live oak (*Quercus virginiana*)(FACU). The sapling and shrub stratum has combinations of black gum (FAC), water oak (FAC), farkleberry (*Vaccinium*

The herbaceous stratum of the nonwetland sample plots includes combinations of broom sedge (*Andropogon virginicus*)(FAC), bracken fern (*Pteridium aquillinum*)(FACU+), yaupon (FAC), black berry (*Rubus arvensis*)(FAC) and muscadine (*Vitis rotundifolia*)(FAC). The only species of woody vines is greenbrier (*Smilax rotundifolia*)(FAC).

Soils of the nonwetland areas are mapped as the Duckston series. Soils in the upland sample plots have a texture of sandy loam with a matrix color of 2.5Y4/4 with no mottles. No indicators of wetland hydrology were found at any site described as nonwetland. The total area of nonwetlands on the property is 3.54 acres. These areas are not subject to federal jurisdiction under Section 404 of the Clean Water Act of 1977 (as amended).

## CONCLUSIONS

Conclusions of this wetland identification/delineation study are:

1. A total of **31.29** acres of the 39.43-acre tract qualifies as wetlands, distributed as shown on Figure 2. These are jurisdictional wetlands.
2. The total area of nonwetlands on the property is **3.54** acres, distributed as shown on Figure 2. These areas are not subject to jurisdiction under Section 404 of the Clean Water Act of 1977 (as amended).

## REFERENCES

- Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," U. S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
- NRCS. 1990. "Soil Survey of Jackson County, Mississippi," USDA Natural Resources Conservation Service [formerly Soil Conservation Service], Washington, D.C.
- NRCS. 1991. "Hydric Soils of the United States of America:1991," USDA Natural Resources Conservation Service [formerly Soil Conservation Service], Washington, D.C.
- U. S. Army Corps of Engineers. 2010. "Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Atlantic and Gulf Coastal Plain Region." Eds. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-20. Vicksburg, ] MS. U. S. Army Engineer Research and Development Center.
- USDA-NRCS. 2012. "National List of Vascular Plant Species that Occur in Wetlands-Region 2: Atlantic and Gulf Coastal Plant Region. "U. S. Department of the Agriculture, Natural Resources Conservation Service, Washington, D. C.

If you have questions or comments regarding this letter report, please contact me at (228) 588-1244 or (228) 623-9714.

Sincerely,



Dana R. Sanders, Jr.



**APPENDIX A  
FIELD DATA SHEETS**

FIGURE. SITE LOCATION MAP WESTWOOD PHASE 2

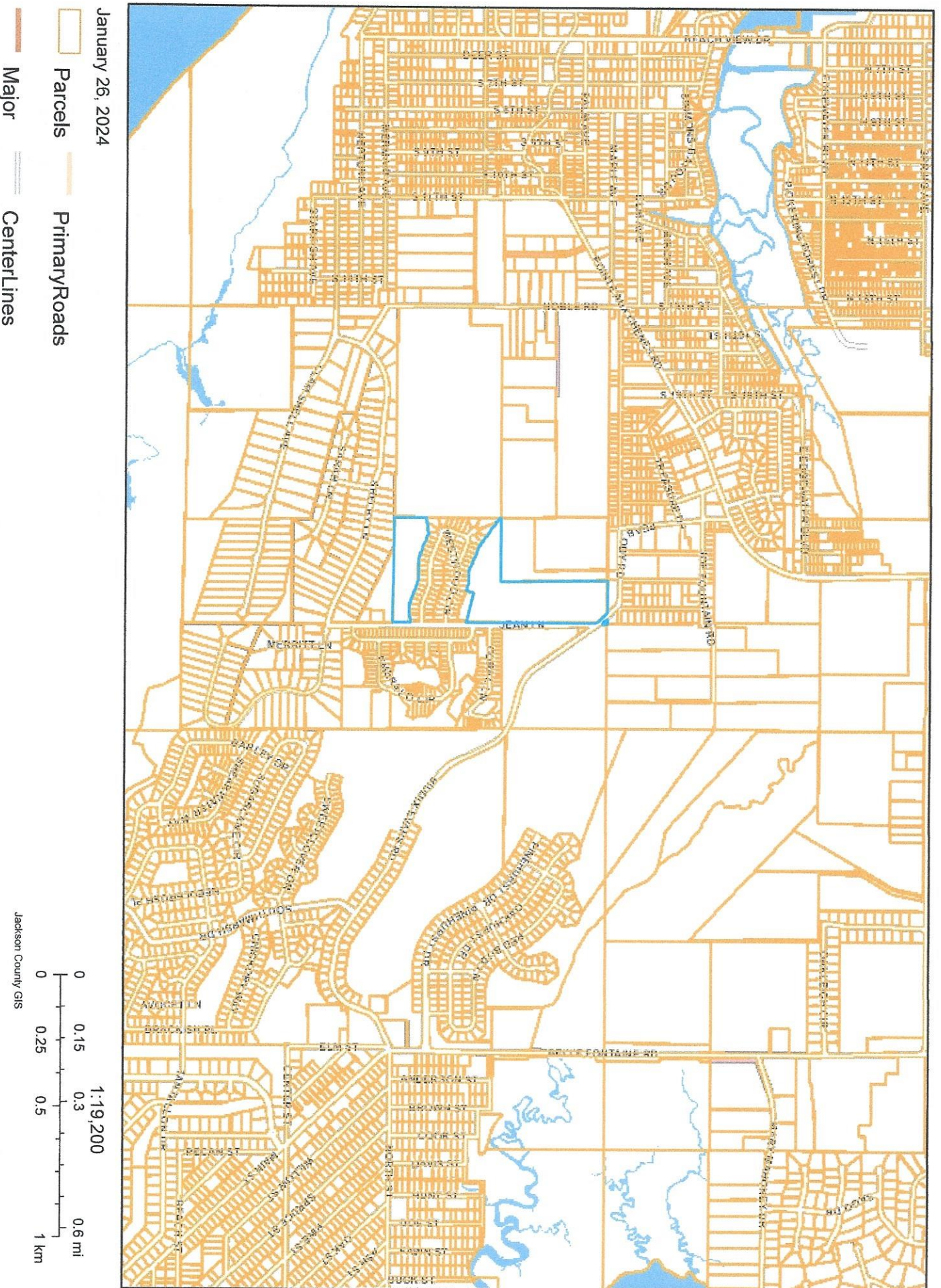
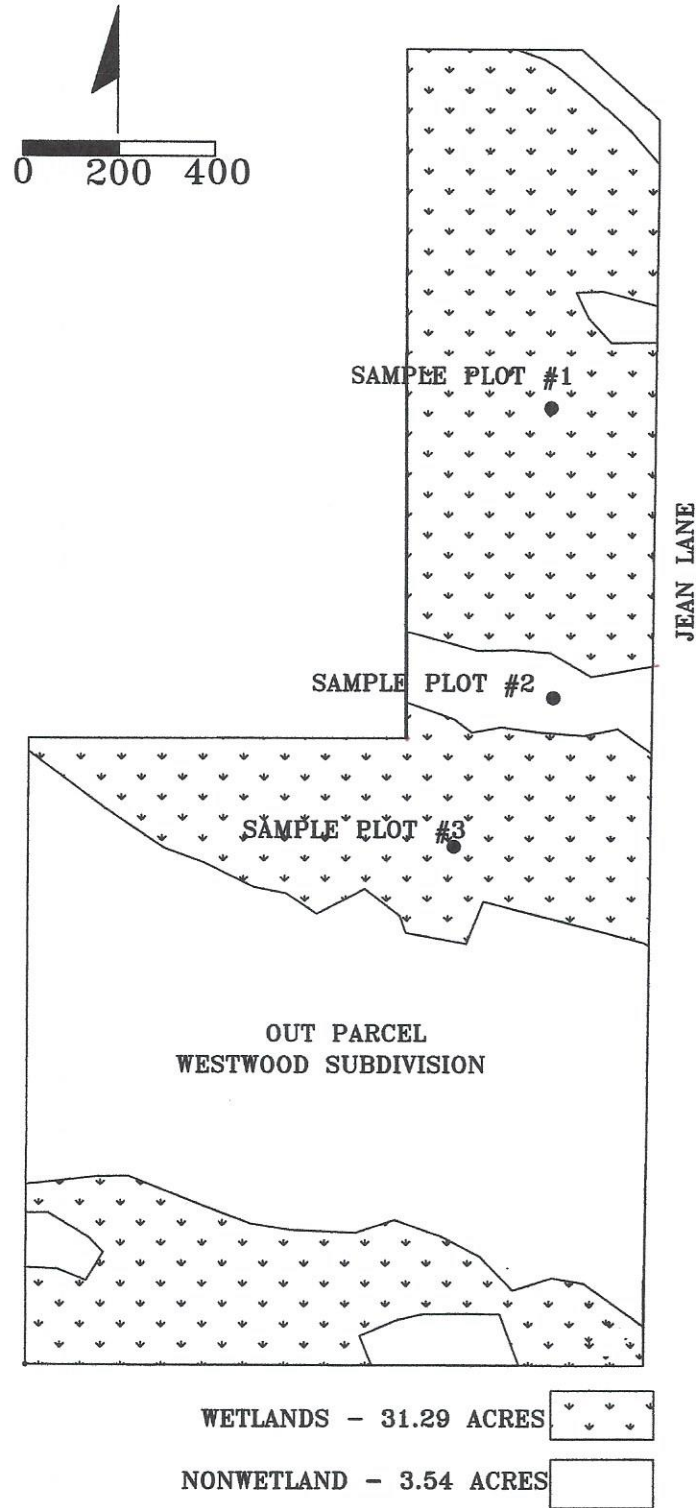


FIGURE 2. WESTWOOD SUBDIVISION PHASE 2  
WETLAND DELINEATION MAP, OCEAN SPRINGS, MS



Appendix A  
Field Data Sheets  
GPS Points

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Westwood Subdivision Phase 2 City/County: Ocean Springs, Jackson Sampling Date: 1/18/24  
 Applicant/Owner: SL Coastal State: MS Sampling Point: 1  
 Investigator(s): DANA SANDERS, JR (DRSA & ASSOC.) Section, Township, Range: SECT12 T8 SOUTH, R 8 WEST  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): CONCAVE Slope (%): 1%  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 30.368999 Long: -88.737519 Datum: NAD83  
 Soil Map Unit Name: Harleston (0-2 percent Slope) NWI classification: PEM

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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Sample plot is within a large flat area typical of the majority wetland acreage on the site.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2)      ___ Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3)      ___ Marl Deposits (B15) (LRR U) ___ Water Marks (B1)      ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2) <input checked="" type="checkbox"/> Oxidized Rhizospherites on Living Roots (C3) ___ Drift Deposits (B3)      ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)      ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)      ___ Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u>None</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: Wetland Hydrology Present	

**VEGETATION – Use scientific names of plants.**

Sampling Point: 1

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot sizes: <u>60' X 60'</u> )				
1. <u>Pinus taeda</u>	<u>50</u>	<u>yes</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>12</u> (A)  Total Number of Dominant Species Across All Strata: <u>12</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> Total % Cover of: <u>90</u> = Total Cover      Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A)      _____ (B)  Prevalence Index = B/A = _____
2. <u>Nyssa sylvatica</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>	
3. <u>Magnolia virginiana</u>	<u>20</u>	<u>yes</u>	<u>FACW</u>	
4. _____				
5. _____				
6. _____				
7. _____				
<b>Sapling Stratum</b> ( <u>30' X 30'</u> )				
1. <u>Nyssa sylvatica</u>	<u>10</u>	<u>yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u>Magnolia grandiflora</u>	<u>10</u>	<u>yes</u>	<u>FACU</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
<b>Shrub Stratum</b> ( <u>30' X 30'</u> )				
1. <u>Ilex coriacea</u>	<u>30</u>	<u>yes</u>	<u>FACW</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  <b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – 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).  <b>Sapling</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  <b>Shrub</b> – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  <b>Herb</b> – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  <b>Woody vine</b> – All woody vines, regardless of height.  <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
2. <u>Ilex glabra</u>	<u>20</u>	<u>yes</u>	<u>FACW</u>	
3. <u>Cyrilla racemifolia</u>	<u>20</u>	<u>yes</u>	<u>FACW</u>	
4. <u>Persea borbonia</u>	<u>10</u>	<u>no</u>	<u>FACW</u>	
5. _____				
6. _____				
7. _____				
<b>Herb Stratum</b> ( <u>6' X 6'</u> )				
1. <u>Dicanthelium erectifolium</u>	<u>40</u>	<u>yes</u>	<u>OBL</u>	
2. <u>Lycopodium appressum</u>	<u>20</u>	<u>yes</u>	<u>OBL</u>	
3. <u>Ilex coriacea</u>	<u>20</u>	<u>yes</u>	<u>FACW</u>	
4. <u>Sarracenia flava</u>	<u>10</u>	<u>no</u>	<u>OBL</u>	
5. <u>Xyris ambigua</u>	<u>10</u>	<u>no</u>	<u>OBL</u>	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
<b>Woody Vine Stratum</b> ( <u>60' X 60'</u> )				
1. <u>Smilax laurifolia</u>	<u>10</u>	<u>yes</u>	<u>FACW</u>	
2. _____				
3. _____				
4. _____				
5. _____				
	<u>10</u>			= Total Cover

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

**SOIL**

Sampling Point: 1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	2.5Y3/1	95	10YR5/6	5	C	PL	SL	SL = SANDY LOAM
4-16	2.5Y4/2	90	10YR5/6	10	C	PL	SL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>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 Mucky 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<sup>3</sup>:**

- 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) (LRR T, U)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

**Remarks:**

Hydric Soils

## WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Woodlake Subdivision Phase 2 City/County: Ocean Springs, Jackson Sampling Date: 1/18/24  
 Applicant/Owner: SL Coastal State: MS Sampling Point: 2  
 Investigator(s): DANA SANDERS, JR (DRSA & ASSOC). Section, Township, Range: SECT12 T8 SOUTH, R 8 WEST  
 Landform (hillslope, terrace, etc.): Ridge Top Local relief (concave, convex, none): CONVEX Slope (%): 3%  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 30.367183 Long: -88.737779 Datum: NAD83  
 Soil Map Unit Name: Duckston NWI classification: PEM

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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Sample plot is located on a ridge situated on the southern portion of the property in which the project is proposed.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)                      ___ Water-Stained Leaves (B9) ___ High Water Table (A2)                   ___ Aquatic Fauna (B13) ___ Saturation (A3)                            ___ Marl Deposits (B15) ( <b>LRR U</b> ) ___ Water Marks (B1)                         ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)                 ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)                        ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)                   ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)                         ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)   ___ Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> ___ 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)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u>None</u> Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u>None</u> Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u>None</u> (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: No Wetland Hydrology Present	



**VEGETATION – Use scientific names of plants.**

Sampling Point: 2

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot sizes: <u>60' X 60'</u> )				
1. <u>Pinus taeda</u>	<u>60</u>	<u>yes</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)  Total Number of Dominant Species Across All Strata: <u>9</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>77</u> (A/B)
2. <u>Quercus nigra</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>	
3. <u>Quercus virginiana</u>	<u>10</u>	<u>no</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>90</u> = Total Cover				
<b>Sapling Stratum</b> ( <u>30' X 30'</u> )				
1. <u>Quercus nigra</u>	<u>10</u>	<u>yes</u>	<u>FAC</u>	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
2. <u>Nyssa sylvatica</u>	<u>10</u>	<u>yes</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>20</u> = Total Cover				
<b>Shrub Stratum</b> ( <u>30' X 30'</u> )				
1. <u>Ilex vomitoria</u>	<u>40</u>	<u>yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u>Ilex coriacea</u>	<u>30</u>	<u>yes</u>	<u>FACW</u>	
3. <u>Vaccinium arboreum</u>	<u>20</u>	<u>yes</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>90</u> = Total Cover				
<b>Herb Stratum</b> ( <u>6' X 6'</u> )				
1. <u>Andropogon virginicus</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – 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).  <b>Sapling</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  <b>Shrub</b> – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  <b>Herb</b> – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  <b>Woody vine</b> – All woody vines, regardless of height.
2. <u>Ilex vomitoria</u>	<u>10</u>	<u>no</u>	<u>FAC</u>	
3. <u>Smilax rotundifolia</u>	<u>10</u>	<u>no</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>80</u> = Total Cover				
<b>Woody Vine Stratum</b> ( <u>60' X 60'</u> )				
1. <u>Smilax rotundifolia</u>	<u>10</u>	<u>yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>10</u> = Total Cover				

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

**SOIL**

Sampling Point: 2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	2.5Y3/2						SL	SL = SANDY LOAM
3-16	2.5Y4/4						SL	

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)	<input type="checkbox"/> 1 cm Muck (A9) (LRR O)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)	<input type="checkbox"/> 2 cm Muck (A10) (LRR S)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)	<input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 153B)	
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Very Shallow Dark Surface (TF12) (LRR T, U)	
<input type="checkbox"/> Muck Presence (A8) (LRR U)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)	<input type="checkbox"/> Marl (F10) (LRR U)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)	<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)	<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)		
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes \_\_\_\_\_    No

Remarks:

Nonhydri Soils

## WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Westwood Subdivision Phase 2 City/County: Ocean Springs, Jackson Sampling Date: 1/18/24  
 Applicant/Owner: SL Coastal State: MS Sampling Point: 3  
 Investigator(s): DANA SANDERS, JR (DRSA & ASSOC). Section, Township, Range: SECT12 T8 SOUTH, R 8 WEST  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): CONCAVE Slope (%): 1%  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 30.366064 Long: -88.738123 Datum: NAD83  
 Soil Map Unit Name: Harleston NWI classification: PEM

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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Sample plot is within a wetland flat located just north of the large nonwetland ridge which Sample Plot 4 is located.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ Water-Stained Leaves (B9) ___ High Water Table (A2)      ___ Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3)      ___ Marl Deposits (B15) ( <b>LRR U</b> ) <input checked="" type="checkbox"/> Water Marks (B1)      ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)      ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)      ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)      ___ Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u>None</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: Wetland Hydrology Present	

**VEGETATION – Use scientific names of plants.**

Sampling Point: 3

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot sizes: <u>60' X 60'</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>9</u> (A)  Total Number of Dominant Species Across All Strata: <u>9</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. <u>Pinus taeda</u>	<u>70</u>	<u>yes</u>	<u>FAC</u>	
2. <u>Magnolia virginiana</u>	<u>20</u>	<u>yes</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<b>Sapling Stratum</b> ( <u>30' X 30'</u> )				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<u>90</u> = Total Cover				
1. <u>Nyssa sylvatica</u>	<u>10</u>	<u>yes</u>	<u>FAC</u>	
2. <u>Acer rubrum</u>	<u>10</u>	<u>yes</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
<b>Shrub Stratum</b> ( <u>30' X 30'</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<u>20</u> = Total Cover				
1. <u>Ilex coriacea</u>	<u>50</u>	<u>yes</u>	<u>FACW</u>	
2. <u>Ilex glabra</u>	<u>20</u>	<u>yes</u>	<u>FACW</u>	
3. <u>Persea borbonia</u>	<u>10</u>	<u>no</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
<b>Herb Stratum</b> ( <u>6' X 6'</u> )				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – 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).  <b>Sapling</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  <b>Shrub</b> – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  <b>Herb</b> – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  <b>Woody vine</b> – All woody vines, regardless of height.
<u>80</u> = Total Cover				
1. <u>Andropogon glomeratus</u>	<u>30</u>	<u>yes</u>	<u>FACW</u>	
2. <u>Ilex coriacea</u>	<u>20</u>	<u>yes</u>	<u>FACW</u>	
3. <u>Lycopodium appressum</u>	<u>10</u>	<u>no</u>	<u>OBL</u>	
4. <u>Xyris ambigua</u>	<u>10</u>	<u>no</u>	<u>OBL</u>	
5. <u>Sarracenia flava</u>	<u>10</u>	<u>no</u>	<u>OBL</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<b>Woody Vine Stratum</b> ( <u>60' X 60'</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
<u>80</u> = Total Cover				
1. <u>Smilax laurifolia</u>	<u>10</u>	<u>yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>10</u> = Total Cover				

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

Hydrophytic Vegetation

**SOIL**

Sampling Point: 3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	2.5Y3/1	90	10YR5/6	10	C	PL	SL	SL = SANDY LOAM
3-16	2.5Y4/2	90	10YR5/6	10	C	PL	SL	

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Muck Presence (A8) (LRR U)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)	<input type="checkbox"/> Marl (F10) (LRR U)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)	<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)	<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes     No

Remarks:

Hydric Soils

**SANDERS ENVIRONMENTAL, LLC**

2305 Lewis Gate Drive, Gautier, Mississippi 39553

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## Preliminary Jurisdictional Determination

**ATTACHMENT**

**PRELIMINARY JURISDICTIONAL DETERMINATION FORM**

**BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): December 2023**

**B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:**  
SL Coastal, POC-Dennis Stieffel, 1306 Shriners Blvd. Suite C Biloxi, MS  
39532

**C. DISTRICT OFFICE, FILE NAME, AND NUMBER: USACE Mobile District**

**D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:** Project is located south of Biddix Evans Road and west of Jean Lane in southern Ocean Springs, Jackson County, MS. The site consists of a 26 lot subdivision which is proposed to be situated adjacent to the west side of Jean Lane north of the existing Westwood Subdivision. The proposed project is a 26 single residential lots and detention pond.

**(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)**

State:MS            County/parish/borough: Jackson County            City: Ocean Springs, MS.

Center coordinates of site (lat/long in degree decimal format): Lat. 30.368073° **Pick List**, Long. -88.737286° **Pick List**.

Universal Transverse Mercator:

Name of nearest waterbody: Simmons Bayou

Identify (estimate) amount of waters in the review area:

Non-wetland waters:            linear feet:            width (ft) and/or acres.

Cowardin Class:

Stream Flow:

Wetlands: 31.29 acres.

Cowardin Class: PFO1A

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal: NA

Non-Tidal: None

**E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

Office (Desk) Determination. Date: Dec, 2023

Field Determination. Date(s): Dec, 2023

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or



to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there "may be" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

**SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply**

- checked items should be included in case file and, where checked and requested, appropriately reference sources below):

Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:

Data sheets prepared/submitted by or on behalf of the applicant/consultant.

Office concurs with data sheets/delineation report.

Office does not concur with data sheets/delineation report.

Data sheets prepared by the Corps:

Corps navigable waters' study:

U.S. Geological Survey Hydrologic Atlas:

USGS NHD data.

USGS 8 and 12 digit HUC maps.

U.S. Geological Survey map(s). Cite scale & quad name: 1:24,000 Gulfport North Quadrangle Maps.

USDA Natural Resources Conservation Service Soil Survey.

Citation: USDA-NRCS Web Soil Survey, <http://websoilsurvey.nrcs.usda.gov>.

Accessed 3/17/2015 3

National wetlands inventory map(s). Cite name:

State/Local wetland inventory map(s):

FEMA/FIRM maps:

100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)

Photographs:  Aerial (Name & Date): GOOGLE EARTH (periodically 3/17/2015

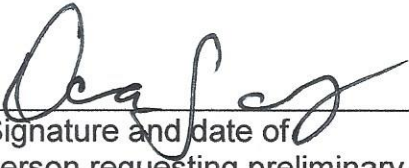
or  Other (Name & Date):

Previous determination(s). File no. and date of response letter:

Other information (please specify):

**IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.**

\_\_\_\_\_  
Signature and date of  
Regulatory Project Manager  
(REQUIRED)

  
\_\_\_\_\_  
Signature and date of  
person requesting preliminary JD  
(REQUIRED, unless obtaining  
the signature is impracticable)

SAMPLE

<b>Site number</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Cowardin Class</b>	<b>Estimated amount of aquatic resource in review area</b>	<b>Class of aquatic resource</b>
	30.396700	- 89.365870	PFO1A	0.44 acre	Non-section 10- Wetland

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Individual Permit Application