

**JOINT APPLICATION AND NOTIFICATION
U.S. ARMY CORPS OF ENGINEERS
MISSISSIPPI DEPARTMENT OF MARINE RESOURCES
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL
QUALITY/OFFICE OF POLLUTION CONTROL**

Applicant: Hillcrest
Mini-Storage, LLC -
Malcom Jones
Mailing Address: 831
E. Scenic Drive
Pass Christian, MS
39571
Phone Number:
Email Address:

Agent: Ecological Asset
Management, LLC - Mitch
Tinsley
Mailing Address: 803
Highway 90
Bay St Louis MS, 39520
Phone Number:

Date Submitted:

08/12/2022

DMR Permit Number:
DMR22-000526

Historic DMR Permit Numbers:

DMR22-000526

DMR File Number:
22-000470

Project Location:

1009M-01-001.002
0 LORRAINE RD
Gulfport, MS
Harrison County

Latitude: 30.4363
Longitude: -89.0312

Do you still need to enter a Project Location?

How will you identify the project location:

Project Information:

Project Name or Title: Old Lorraine Road Subdivision

Project Description: The applicant proposes to fill a total of +/- 2.42 acres of medium quality wetlands to construct a single family residential subdivision. The subdivision design proposed would support 49 units and the design, layout as well as the locations and sizes of the proposed homes and infrastructure have been specifically designed to avoid as much jurisdictional wetlands as possible and reduce the needed impact areas to only what will support the minimal requirements needed to support the development. The impacts to jurisdictional wetlands requested will support the needed construction for roads, utilities and building pads. Due to a high demand of single family housing units in this area and also along the Mississippi Gulf Coast, a steady growth of new construction homes continues to be desired. This needed subdivision will provide support for the economic expansion within the general Central Gulfport and Harrison County areas. As more families are drawn into these areas, they provide a larger labor force, as well as a larger consumer base, which also benefits the city and county revenues. Ecological Asset Management, LLC (EAM) staff biologists with expertise in threatened and endangered (T&E) species surveys conducted a field investigation to identify the presence of Threatened and/or Endangered Species and the existence of potential habitats on the subject property. Prior to the field investigation that took place in December 2021, EAM biologists reviewed the U.S. Fish and Wildlife Services (USFWS) latest list of T&E species and the Mississippi Department of Wildlife and Fisheries Natural Heritage Programs Data Base within Harrison County, Mississippi. It was determined through in-house research and the field visits on December 1, 2021, that of the species listed as T&E species in Harrison County, MS, none occur on habitat contained of the subject property. An inquiry has been made to Mississippi Department of Archives and History in regards to Section 106 by the applicants agent. On March 15, 2022, MDAH determined that a cultural assessment would be required. A fully completed CRS P1 field survey and report has been performed by TerraXplorations and the subsequent report will be forwarded to the USACE Project Manager so they may review and submit to MDAH for

review and concurrence.

Project Purpose and Need: The purpose of this project is to construct a single-family residential subdivision in an area with increasing demand for single-family residences.

Intended Use: Commercial

Will the Proposed Project have a Public Benefit?: Yes

Increased tax base:

Increased employment:

National security benefits:

Improved habitat:

Other:

Does Project area contain any marsh Vegetation?: No

What measures will be taken to reduce detrimental off-site effects to the Coastal Wetlands during and after the proposed activity?: Best Management Practices

Impact Information:

Number of Impact Types

01

Impact Type:

Wetland Fill

Permanent or Temporary?

Permanent

Specific Purpose of Fill (Wetland Fill)

Fill would be required to support necessary structural improvements to

construct roads, utility easements, single family building pad areas.

Acreage/Square Footage or Linear Feet (Wetland Fill)	2.42
Specify Unit of Measurement (Wetland Fill)	01. Acreage
Cubic Yards of Fill Material (Wetland Fill)	6,200
Fill Material Type (Wetland Fill)	Sandy clay
Habitat Type (Wetland Fill)	02. Bottomland Hardwood
Mitigation Type(Wetland Fill)	01. Credit Purchase
Is this a component of a larger project?	No
Is any portion of this impact complete?	No

Additional information relating to the proposed activity

Have any other federal, state, or local agencies issued permits or other types of approvals for the proposed project?: No

Have any other federal, state, or local agencies denied approval for the proposed project?: No

Project Schedule

Do you know the Proposed Start Date? No

Do you know the Proposed Completion Date? No

Do you know the Estimated Cost of the Project?

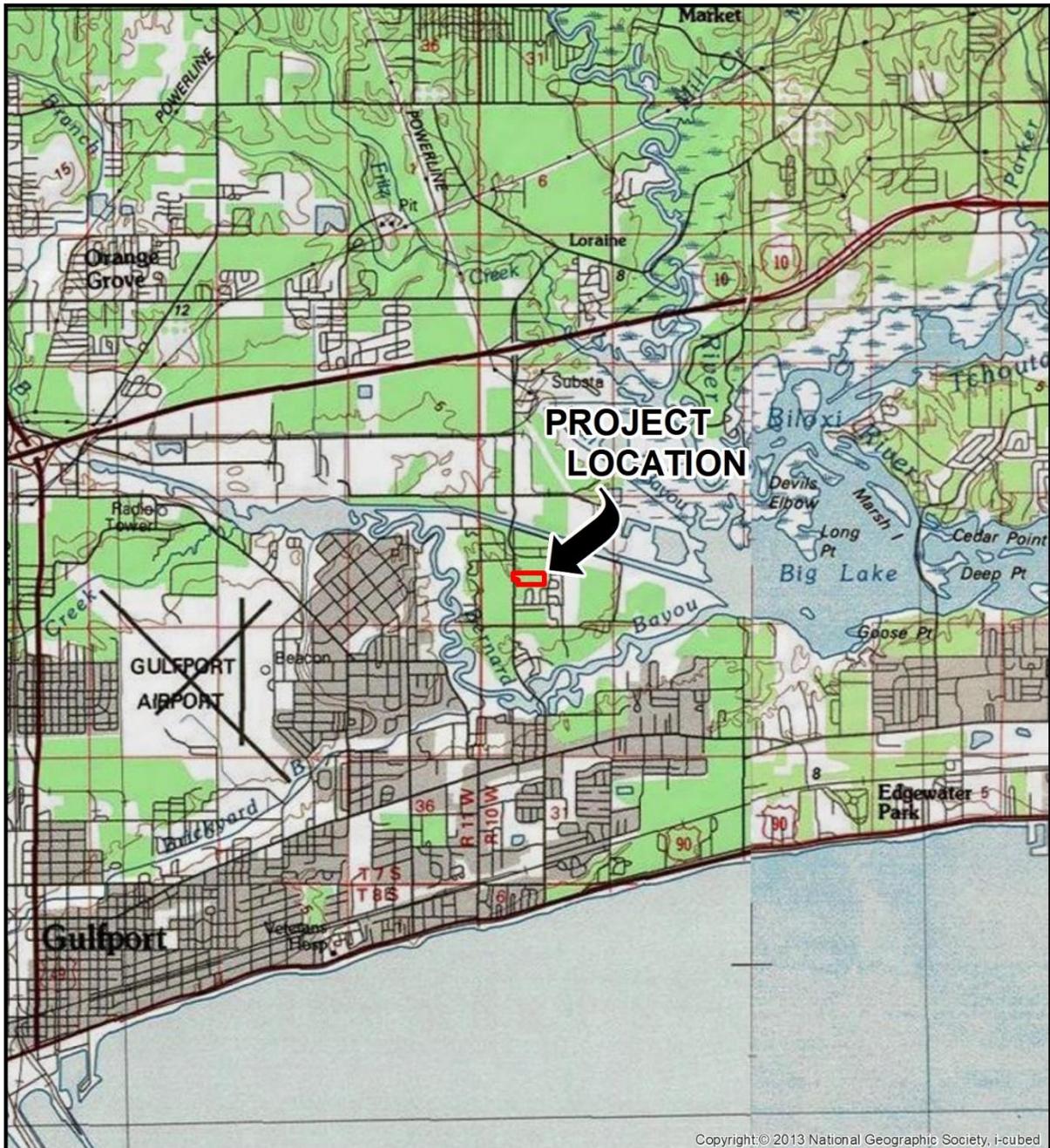
Adjacent Property Owners:

Application Certified by: Mitch Tinsley

**Attachment “A”
PERMIT DRAWINGS**

Old Lorraine Road

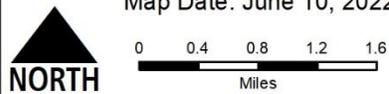
Section 19, T-7-S, R-10-W
Gulfport, Harrison County, MS



Copyright © 2013 National Geographic Society, i-cubed

FIGURE 1

Purpose: Permit Drawing
 Base Map: ESRI USA Topo Maps
 Source: USGS, NGS, i-cubed
 Map Date: June 10, 2022



**PROJECT LOCATION
 MAP**



**ECOLOGICAL
 ASSET
 MANAGEMENT, LLC**

**Permit Drawing
 for +/- 13.18 ac Project Area
 on Old Lorraine Road**

Location: Gulfport, MS
 Portion of Section 19;
 Township-7-South; Range-10-West
 County: Harrison County, MS

Figure 1. Project Location

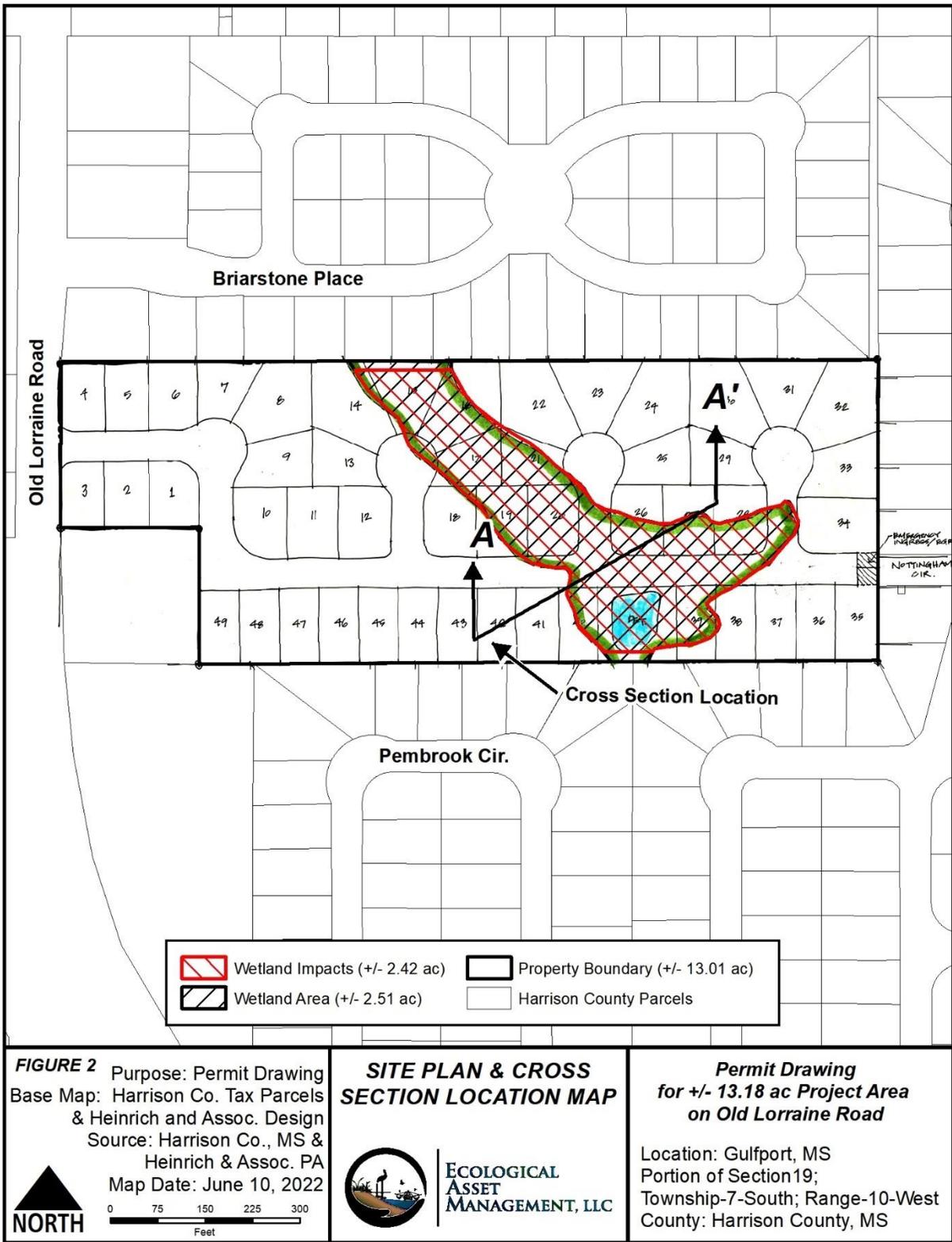


Figure 2. Proposed Site Plan & Cross Section Location Map

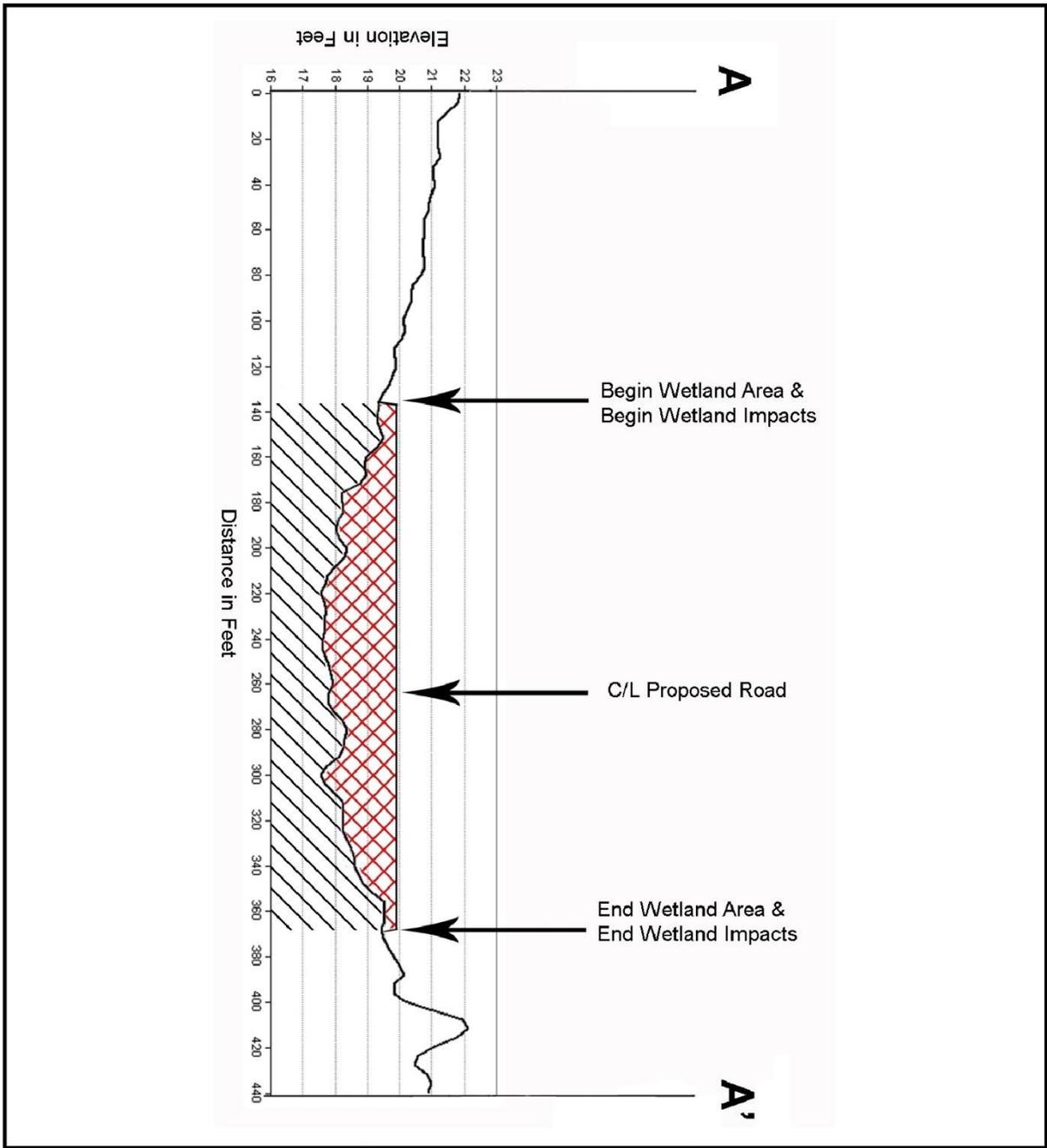


FIGURE 3
 Purpose: Permit Drawing
 Base Map: USGS (2014) LiDAR
 Digital Elevation Model
 Source: MARIS & EAM
 Map Date: June 10, 2022

NORTH **SCALE: As Shown**

TYPICAL CROSS SECTION DRAWING



ECOLOGICAL ASSET MANAGEMENT, LLC

Permit Drawing for +/- 13.18 ac Project Area on Old Lorraine Road

Location: Gulfport, MS
 Portion of Section 19;
 Township-7-South; Range-10-West
 County: Harrison County, MS

Figure 3. Typical Cross Section Drawing

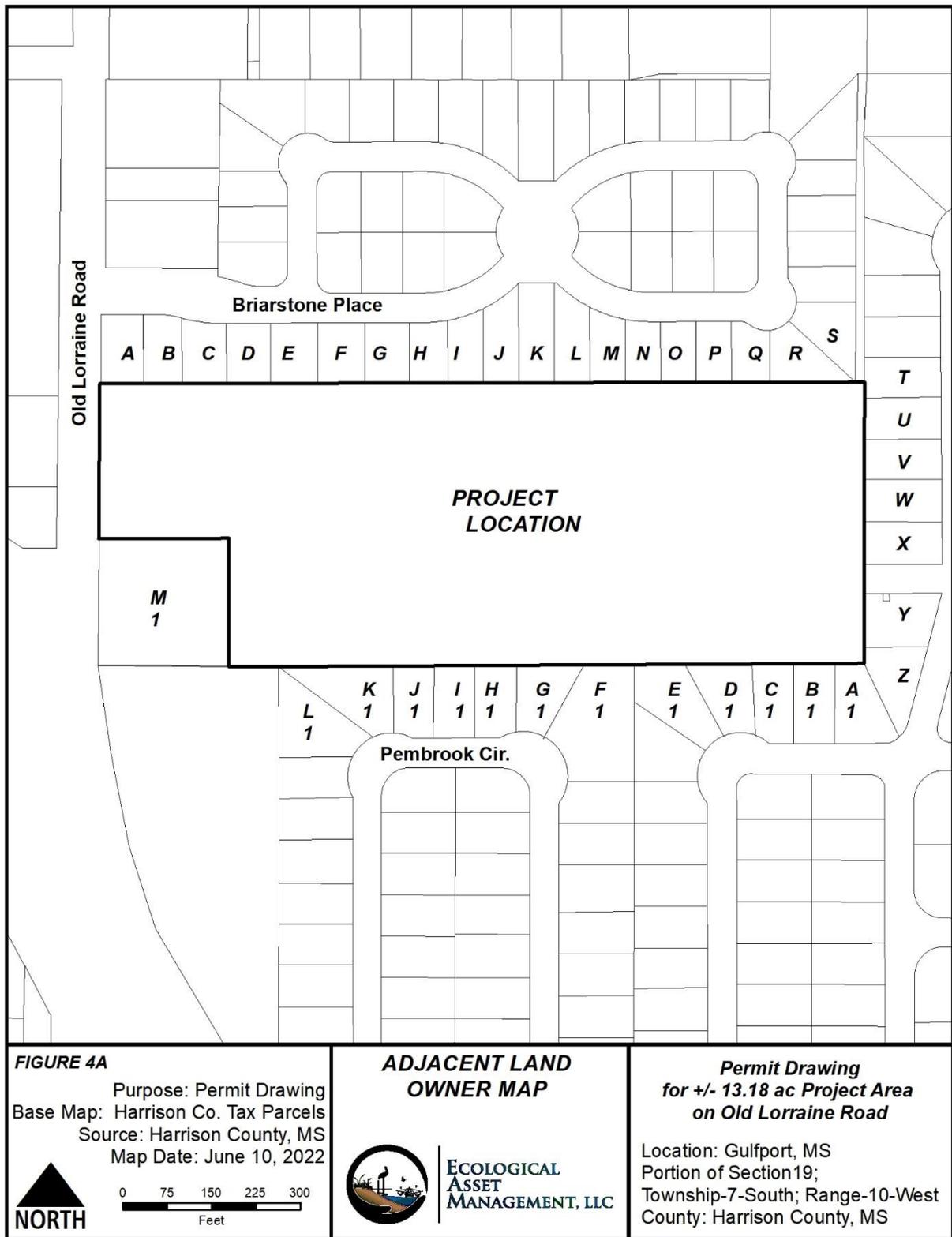


Figure 4A: Adjacent Landowner Map

Old Lorraine Rd. - Adjacent Land Owners Detail Table				
ID	GISP ID	Name	Address	City, State, Zip
A	1009M-01-001.000	HAARALA ZACHARY R & KELSEY M	11485 BRIARSTONE PLACE	GULFPORT MS39503
B	1009M-01-001.065	BEYERSTEDT MICHAEL D & KELLY D	11489 BRIARSTONE PLACE	GULFPORT MS39503
C	1009M-01-001.008	LYONS JOEL THOMAS	11491 BRIARSTONE PLACE	GULFPORT MS39503
D	1009M-01-001.009	MUNN STUART TAYLOR & CHAILLE CLEMEN	11493 BRIARSTONE PLACE	GULFPORT MS39503
E	1009M-01-001.010	PURVIS CHERRYL DARLENE	11495 BRIARSTONE PLACE	GULFPORT MS39503
F	1009M-01-001.011	ATCHINSON WILLIAM BRIAN & SANDRA MO	11497 BRIARSTONE PLACE	GULFPORT MS39503
G	1009M-01-001.012	CHAMBLISS DAVID W & ANGELA R	11499 BRIARSTONE PLACE	GULFPORT MS39503
H	1009M-01-001.013	KILPATRICK STEPHANIE G	11501 BRIARSTONE PLACE	GULFPORT MS39503
I	1009M-01-001.014	SURGINER SUGAR	11503 BRIARSTONE PLACE	GULFPORT MS39503
J	1009M-01-001.015	WARREN SHIRLE J	11505 BRIARSTONE PLACE	GULFPORT MS39503
K	1009M-01-001.016	SIMMONS MARGARET ANN	225 COWAN ROAD	GULFPORT MS39507
L	1009M-01-001.017	HYDE JUDY HASTING -TRUSTEE-	11509 BRIARSTONE PLACE	GULFPORT MS39503
M	1009M-01-001.018	MORRIS MOLLY E & MATTHEW P BLACKMON	11511 BRIARSTONE PLACE	GULFPORT MS39503
N	1009M-01-001.019	ROSE ANDREW M & GABRIELLE E	11513 BRIARSTONE PLACE	GULFPORT MS39507
O	1009M-01-001.020	THOMAS JOSHUA W	11620 EASY STREET	GULFPORT MS39503
P	1009M-01-001.021	LAROSA SALVADORE JOHN	11517 BRIARSTONE PLACE	GULFPORT MS39503
Q	1009M-01-001.022	MICKLE PAUL F & LINDSEY B	11519 BRIARSTONE PLACE	GULFPORT MS39503
R	1009M-01-001.023	SMITH RONNIE J & JESSICA A	11521 BRIARSTONE PLACE	GULFPORT MS39503
S	1009M-01-001.024	PITTMAN WILLIAM C JR & JENNIFER C	11523 BRIARSTONE PLACE	GULFPORT MS39503
T	1009N-02-022.000	GARNER RAYMOND M JR & PATRICIA ANN	36 YORKSHIRE PKWY	GULFPORT MS39501
U	1009N-02-023.000	JORDAN LANCE L	34 YORKSHIRE PKWY	GULFPORT MS39507
V	1009N-02-024.000	HIMEL DEWEY J SR & AMY K	32 YORKSHIRE PKWY	GULFPORT MS39503
W	1009N-02-038.000	WHITE DAVID R SR	30 YORKSHIRE PKWY	GULFPORT MS39503
X	1009N-02-039.000	VU HUNG T	28 YORKSHIRE PKWY	GULFPORT MS39507
Y	1009N-02-040.000	WILSON TEDDY L	26 YORKSHIRE PKWY	GULFPORT MS39501
Z	1009N-02-041.000	CARTER CHARLES F	24 YORKSHIRE PKWY	GULFPORT MS39503
A1	1009M-01-061.000	KEYES LUTHER D & KEYES DELORES E	34 DOVER DRIVE	GULFPORT MS39503
B1	1009M-01-060.000	SUNFLOWER PROPERTIES LLC	#8 BAYOU PLACE	GULFPORT MS39503
C1	1009M-01-059.000	MALLET JUDY A	30 DOVER DRIVE	GULFPORT MS39503
D1	1009M-01-058.000	BURNS MICHELINE L	28 DOVER DRIVE	GULFPORT MS39501
E1	1009M-01-057.000	HOLLIDAY CORNIECE C	26 DOVER DRIVE	GULFPORT MS39503
F1	1009M-01-038.000	QUINTERO RONALD J & DIANE L	38 PEMBROOK CIRCLE	GULFPORT MS39501
G1	1009M-01-037.001	MITCHELL MIRANDA G	34 PEMBROOKE CIRCLE	GULFPORT MS39503
H1	1009M-01-037.000	PIASCIK HARRY T & PAMELA L	4802 JEFFERSON AVE	GULFPORT MS39507
I1	1009M-01-019.000	DESHAMP RICKY BRIAN & DONNA	30 PEMBROOK CIRCLE	GULFPORT MS39503
J1	1009M-01-019.001	MOSES JONATHAN MARC	18123 LAKE VISTA DRIVE	GULFPORT MS39503
K1	1009M-01-018.000	TTLBL LLC	4747 EXECUTIVE DR STE 510	SAN DIEGO CA92121
L1	1009M-01-017.000	RAYBON CRAIG ELLIOTT	RENAISSANCE LOAN SERVICES LLC	GULFPORT MS39503
M1	1009M-01-002.000	BUCHANAN CURTIS LEE III	9166 LORRAINE ROAD	GULFPORT MS39503

FIGURE 4B
 Purpose: Permit Drawing
 Base Map: Harrison Co. Tax Parcels
 Source: Harrison County, MS
 Map Date: June 10, 2022



NORTH

**ADJACENT LAND
OWNER DETAIL TABLE**



**ECOLOGICAL
ASSET
MANAGEMENT, LLC**

**Permit Drawing
for +/- 13.18 ac Project Area
on Old Lorraine Road**

Location: Gulfport, MS
 Portion of Section 19;
 Township-7-South; Range-10-West
 County: Harrison County, MS

Figure 4B: Adjacent Landowner Detail Table

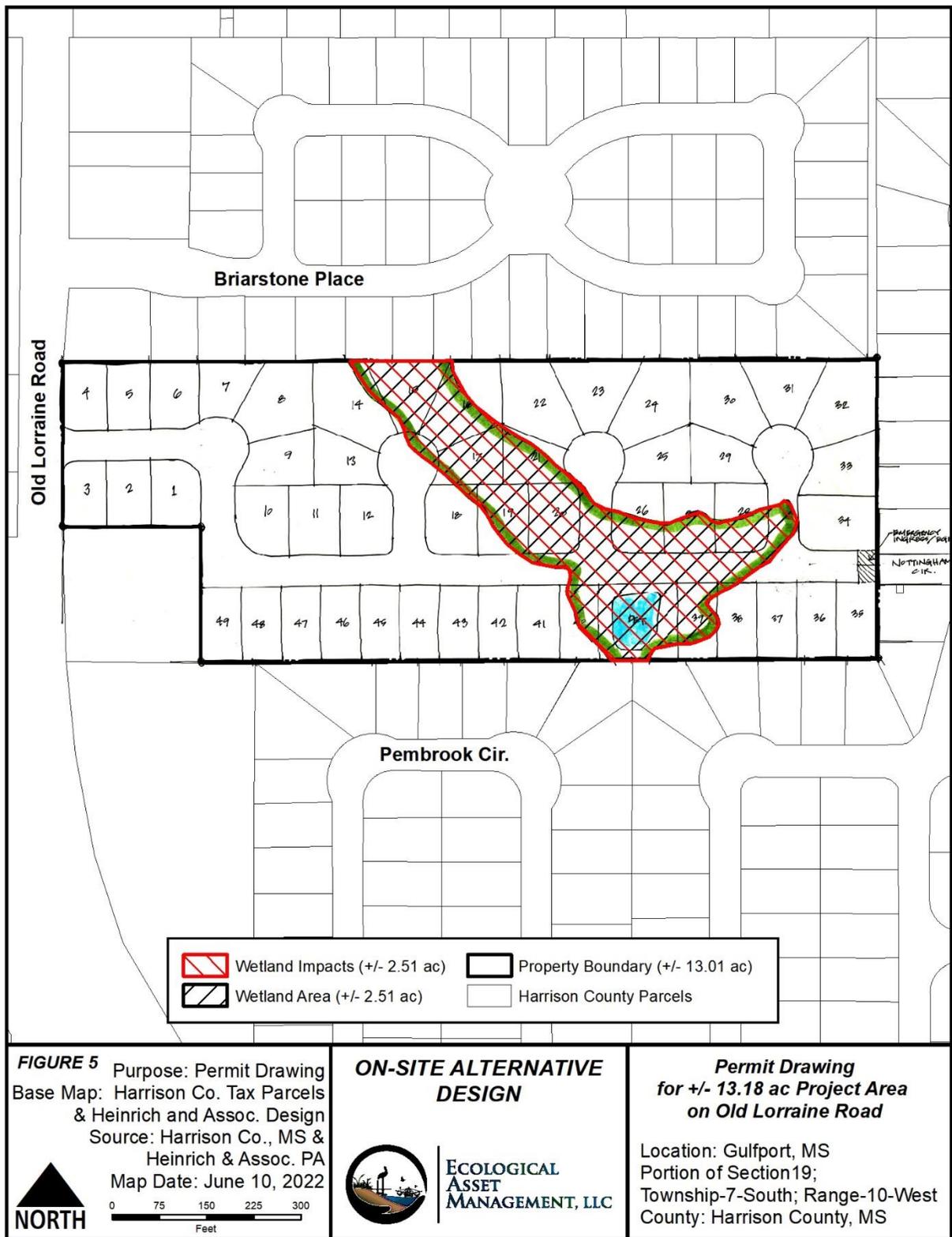


Figure 5: On-site Alternative Design

**Attachment “B”
AGENT AUTHORIZATION**

Old Lorraine Road

Section 19, T-7-S, R-10-W
Gulfport, Harrison County, MS

Attachment “C”

ENVIRONMENTAL ASSESSMENT

Old Lorraine Road

Section 19, T-7-S, R-10-W
Gulfport, Harrison County, MS

Environmental Assessment

Project Description

The project consists of the construction of a single-family residential subdivision on a +/- 13.18-acre project area in Gulfport, MS. The subject property is more specifically located in Section 19, Township-7-South, Range-10-West (Figure 1), Gulfport, Harrison County, MS.

This residential development is being proposed in a rapidly growing area of the Mississippi Gulf Coast. The project will entail land clearing and the permanent filling of +/- 2.42 acres of medium-quality jurisdictional wetlands. The filling of the property will require +/- 6,200 cubic yards of sandy clay material anticipated to be sourced from the approved, Business Properties Pit Permit Number P80-022T. The project will provide additional single-family residences to meet the needs of a rapidly growing area in the corporate limits of Gulfport, Mississippi. Best management practices will be employed to ensure that the fill material will not contaminate surrounding wetlands and/or other waters of the U.S.

Purpose and Need for Project

The purpose of the project is to develop a residential subdivision outside of storm surge hazard locations (NOAA) that will provide needed housing in a rapidly growing market. The project, as proposed, allows for the construction of all improvements necessary for the development of a 49-lot residential subdivision zoned by the City of Gulfport as Single-Family Residential (Low Density) (R-1-7.5). There is high demand for housing in desirable areas such as the subject location.

The proposed project location is situated along the Lorraine Road corridor that connects Highway 90 to Interstate 10. In recent years, this corridor has been experiencing a sharp increase in both commercial and residential development. This site location is centrally located on Lorraine Road with opportunities for work in the neighboring industrial parks located directly north as well the newly erected commercial store fronts, healthcare offices and restaurants that can be found less than a mile south. Additionally, the newly developed subdivision would be within 3 miles of Bayou View Elementary, Bayou View Middle School and Gulfport High School, as well as half a dozen private institutions and childcare services.

Alternatives

Identified project and project alternatives include: (1) construction of proposed 49-lot residential subdivision, (2) construction of an alternative design, (3) alternative sites and (4) the no-build alternative.

- (1) The project, as proposed, provides the minimal buildable lots required to develop an economically feasible project that can suit the housing needs for the proposed area. The project as proposed will produce the revenue required for the necessary infrastructural improvements while maintaining an adequate profit margin for the applicant.

- (2) The alternative site design was not chosen, as the developer was able to meet the city's set back requirements for lots 14, 15, 16, & the detention area without causing impacts to the backside of each lot. This design would impact an additional +/- 0.09 acres of wetland area.
- (3) Alternative sites for the project were investigated. The description of the sites and each reason they were not selected over the proposed location can be found in Appendix C-1 – Alternative Site Analysis.
- (4) The no build alternative is undesirable because it would not satisfy the purpose and need for the project and would make the applicant unable to earn potential income.

Affected Environment

Site Analysis

The project area consists of a medium-quality freshwater forested/shrub wetland vegetative community and a mixed pine/hardwood upland community.

Vegetation

The subject property contains a mixed pine/hardwoods upland vegetative community and a freshwater bottomland hardwood wetland vegetative community.

The mixed pine/hardwood upland vegetative community is dominated by *Pinus elliottii* (Slash Pine), *Magnolia grandiflora* (Southern Magnolia), *Quercus nigra* (Water Oak), *Quercus virginiana* (Southern Live Oak), *Ilex coriacea* (Large Gallberry) and *Vitis rotundifolia* (Muscadine).

The freshwater bottomland hardwood wetland vegetative community is dominated by *Pinus elliottii* (Slash Pine), *Magnolia virginiana* (Sweetbay Magnolia), *Symplocos tinctoria* (Sweetleaf), *Ilex coriacea* (Large Gallberry), *Woodwardia areolata* (Netted Chainfern) and *Osmunda cinnamomea* (Cinnamon Fern).

Wetlands

A wetland delineation and Wetland Rapid Assessment Procedure (WRAP) were completed by Ecological Asset Management, LLC and are included in this submittal. The results of the study determined that the site contains +/- 2.42 acres of federally regulated wetlands of medium quality. Surrounding development and the presence of an on-site excavation pit are the main contributing factors in the WRAP results. The WRAP sheets can be found in Appendix C-3.

Water Quality

The local hydrology was investigated extensively throughout the project area. It was determined that the natural hydrology has not been recently altered. On-site drainage is directed northwesterly and is confined by a pronounced wetland area that bisects the property. This drainage arrives on-site from the south via a man-made ditch and exits the property to the north. A man-made perimeter exists adjacent to the property's eastern boundary and portions of the southern property boundary. This ditch works to relieve the subject property of ponding during events of significant rainfall.

Cultural Resources

A request for a Cultural Resources Assessment was made to the Mississippi Department of Archives and History (MDAH) on March 2, 2022. A response received on March 15, 2022 (Figure C-2), stated that due to the topography of the area, a cultural resource survey will need to be performed on the entirety of the project area. A CRS Phase 1 was performed on the entire project boundary on May 10, 2022, by TerraXplorations, and it was concluded that no cultural resources are likely to be affected on the subject property. The results of that survey and report are pending review by USACE – Mobile District & Mississippi Department of Archives and History (MDAH).

Threatened and Endangered Species

Based on the field survey conducted by EAM personnel, it was determined that of the vulnerable species noted in Table 1, only the following three species could persist within the geographical region: *Gopherus polyphemus* (Gopher Tortoise), *Pituophis melanoleucus lodingi* (Black Pine Snake) and *Picoides borealis* (Red-cockaded Woodpecker). Ecological Asset Management, LLC biologists with expertise in T&E species surveys conducted an extensive field investigation using a sub-meter Global Positioning System (GPS) to delineate any potential habitat and to identify any threatened individuals or populations. This field survey was conducted on January 4, 2022.

Upon completion of the field survey, it was determined that no known species listed as threatened and/or endangered will be impacted by the proposed project, nor is the habitat within the range of the proposed development suitable for any of the county’s vulnerable species.

Common Name	Scientific Name	Type	Status
Alabama Red-bellied Turtle	<i>Pseudemys alabamensis</i>	Reptile	Endangered
Gopher Tortoise	<i>Gopherus polyphemus</i>	Reptile	Threatened
Black Pinesnake	<i>Pituophis melanoleucus lodingi</i>	Reptile	Threatened
Leatherback Sea Turtle	<i>Dermochelys coriacea</i>	Reptile	Endangered
Kemp’s Ridley Sea Turtle	<i>Lepidochelys kempii</i>	Reptile	Endangered
Hawksbill Sea Turtle	<i>Eretmochelys imbricata</i>	Reptile	Endangered
Loggerhead Sea Turtle	<i>Caretta caretta</i>	Reptile	Threatened
Dusky Gopher Frog	<i>Rana sevosa</i>	Amphibian	Endangered
Red-cockaded Woodpecker	<i>Picoides borealis</i>	Bird	Endangered
Piping Plover	<i>Charadrius melodus</i>	Bird	Threatened
Red Knot	<i>Calidris canutus rufa</i>	Bird	Threatened
Wood Stork	<i>Mycteria americana</i>	Bird	Threatened
Eastern Black Rail	<i>Laterallus jamaicensis ssp. jamaicensis</i>	Bird	Threatened
Gulf Sturgeon	<i>Acipenser oxyrinchus desotoi</i>	Fish	Threatened
West Indian Manatee	<i>Trichechus manatus</i>	Mammal	Threatened
Louisiana Quillwort	<i>Isoetes louisianensis</i>	Plant	Endangered

Table 1: Threatened and Endangered Species of Harrison County, MS as of June 29, 2022. Source: U.S. Fish and Wildlife Service: Information for Planning and Consultation.

Wildlife and Fisheries

The project area consists of a medium-quality, freshwater forested/shrub wetland vegetative community and a mixed forested/shrub upland community.

Socio-Economics

The subject property is currently zoned as Single-Family Residential (Low Density) (R-1-7.5). Currently, except for property taxes, the property is not generating any revenues for the City of Gulfport.

Environmental Consequences

Wetland Impacts

The project will require the filling of +/- 2.42 acres of medium-quality jurisdictional wetlands. Any impacts to these wetlands will be compensated for by the purchase of off-site wetland mitigation credits from an approved mitigation site.

Water Quality

No degradation of water quality chemistry is expected to result from the presence of the proposed project. The stabilization of the upland area will decrease the amount of silt run-off from the adjacent uplands.

Best management practices (BMPs) will be employed to prevent detrimental off-site effects to waters of the US during and after development. BMPs will consist of but are not limited to silt fences, hay bales, etc.

Cultural Resources

A request for a Cultural Resources Assessment was made to the Mississippi Department of Archives and History (MDAH) on March 2, 2022. A response received on March 15, 2022 (Figure C-2), stated that due to the topography of the area, a cultural resource survey will need to be performed on the entirety of the project area. A CRS Phase 1 was performed on the entire project boundary on May 10, 2022, by TerraXplorations, and it was concluded that no cultural resources are likely to be affected on the subject property. The results of that survey and report are pending review by USACE – Mobile District & Mississippi Department of Archives and History (MDAH).

Threatened and Endangered Species

The project will have no known adverse effects on species listed as threatened or endangered by the U.S. Fish and Wildlife Service.

Wildlife and Fisheries

The project area consists of a small, isolated forested/shrub community that is surrounded by residential and commercial property. The property lacks any wildlife corridors to off-site, undeveloped areas. Therefore, the property provides minimal habitat value for wildlife such as fur-bearing animals and avian species. It has been determined that the proposed development will not lead to any notable impacts to any animal populations that may persist within the project area.

Socio-Economics

The socio-economic impacts of the proposed subdivision would be positive. Residents of The City of Gulfport and the MS Gulf Coast would most likely fill additional employment opportunities created by the developmental phases of this project. Building materials would likely be obtained from local building supply stores. The City of Gulfport will benefit from ad valorem taxes generated from the new subdivision.

Works Cited

Ecological Asset Management, LLC

2021. +/- 13.18-Acre Old Lorraine Road Project Area, Gulfport, Harrison County, MS.

NOAA/NWS/NHC Storm Surge Unit

Story map Series. National Storm Surge Hazard Maps.

<https://noaa.maps.arcgis.com/apps/MapSeries/index.html?appid=d9ed7904dbec441a9c4dd7b277935fad&entry=1>, Electronic map accessed: March 2, 2022.

U.S. Fish & Wildlife Service: Information for Planning and Consultation

2022. *IPaC Resource List*.

<https://ipac.ecosphere.fws.gov/location/CWPNCLIH5VEBJGXB7CMZO2VEO4/resources>,

Electronic document accessed: June 29, 2022.

Appendix C-1

Alternative Site Analysis and Map For Environmental Assessment

Old Lorraine Road

Section 19, T-7-S, R-10-W
Gulfport, Harrison County, MS

Alternative Off-Site Analysis

The applicant’s agents utilized the Mississippi Gulf Coast Realtor Multiple Listing Service (MLS) to locate available potential alternative sites. Ecological Asset Management, LLC (EAM), then analyzed the potential environmental impacts as well as the economic feasibility associated with each potential alternative. Key parameters used in the scoping process that were investigated, include but were not limited to, size (10-20 acres), within the corporate limits of the city of Gulfport, access to primary traffic corridors, proximity to schools and public facilities, outside of storm surge hazard locations and current/proper zoning for the proposed development. Currently marketed land/unimproved property sites were analyzed, and those alternative sites are discussed here. The National Wetland Inventory (NWI), the Web Soil Survey (WSS), Google Earth, LiDAR imagery, as well as professional judgements were also utilized to analyze the environmental settings associated with each alternate site for the proposed project.

A summary describing each alternative site and the criteria for not selecting each site is listed and the highest qualifying site (A) is also detailed with the provided mapping data, are as follows:

Site	Zoning	Size	Location	LEDPA	Cost
Proposed	Yes	Yes	Yes	Yes	Yes
Alternative “A”	Yes	Yes	No	No	No
Alternative “B”	Yes	Yes	Yes	No	No
Alternative “C”	Yes	Yes	No	No	Yes
Alternative “D”	No	Yes	Yes	No	No

Assessment analysis of proposed and alternative sites. Zoning indicates whether the site is currently zoned for the project type. Size indicates whether the site fits the project size requirements. Location indicates whether the property is within a desirable distance (0-1 mi) from primary traffic corridors. The Least Environmentally Damaging Practicable Alternative (LEDPA) is determined based on potential impacts on wetland, open water and habitat corridors. Cost indicates whether the site is financially viable based on cost of property, cost to develop and cost of permitting.

Proposed Site

The proposed site is located on Old Lorraine Road in Gulfport, MS. The site is 13.18 acres, undeveloped and zoned as Single-Family Residential (Low Density) (R-1-7.5).

Location: The parcel is situated 0.1 miles from the Cowan Lorraine traffic corridor. The proposed site is situated 3.6 miles from Bayou View Elementary and 2.6 miles from Anniston Elementary. Additionally, the proposed subdivision would be within 1.5 miles of Rouse’s Market and less than a mile from Pure Country Convenience Store. The location of this site also provides ease of access to facilities and leisure areas.

Environment: The proposed site location contains 2.42 acres of jurisdictional wetlands. The site is surrounded by single-family residential development and, therefore, does not maintain valuable habitat corridors. The site is not adjacent to traditional navigable waters (TNW) nor is it tidally influenced.

Cost: The site is currently owned by the prospect developer. The need for site clearing, mitigation and purchase/transport of fill material contributes to the cost to develop the subject property.

Alternative Site “A”

Site “A” is located on Pass Road in Gulfport, MS (PIDN: 0910M-01-001.000). The site is 15 acres, undeveloped and zoned as Single-Family Residential (Medium Density) (R-2).

Location: The parcel is situated 2 miles from the 25th Avenue traffic corridor. The proposed site is situated 0.7 miles from Central Elementary and 1.5 miles from Gulfport High School. Additionally, the proposed subdivision would be within 3 miles of multiple grocery and convenience stores. The location of this site also provides ease of access to facilities and leisure areas. This property is adjacent to the Gulfport-Biloxi International Airport (GPT).

Environment: The proposed site location appears to contain +/- 3 acres of wetlands. The site is mostly surrounded by commercial development, but it does maintain a natural habitat buffer that is contiguous with Brickyard Bayou. The site is adjacent to traditional navigable waters (Brickyard Bayou).

Cost: The site is currently listed for \$803,750 (\$53,500 per acre). The need for site mitigation and purchase/transport of fill material contributes to the cost to develop the subject property.

Alternative Site “B”

Site “B” (PIDN: 0910G-02-008.000) is located on Courthouse Road in Gulfport, MS. The site is 10.32 acres, undeveloped and zoned as Single-Family Residential (Low Density) (R-1-7.5).

Location: The parcel is situated 1.1 miles from the Cowan Lorraine traffic corridor. The site is situated 0.8 miles from Pass Road Elementary. Additionally, this site would be within 0.7 miles of Froogel’s Cost+ Foods and within 0.4 miles of Exxon. The location of this site provides ease of access to facilities and leisure areas. This property is less than a mile from the Gulfport-Biloxi International Airport (GPT).

Environment: The proposed site location appears to contain +/- 6 acres of jurisdictional wetlands. The site is partially surrounded by residential development, but it maintains a valuable habitat corridor that is contiguous with Brickyard Bayou. The site is adjacent to traditional navigable waters (Brickyard Bayou).

Cost: The site is currently listed for \$499,000 (\$48,300 per acre). The need for site clearing, mitigation and purchase/transport of fill material contributes to the cost to develop the subject property.

Alternative Site “C”

Site “C” is located on South Swan Road in Gulfport, MS (PIDN: 0807H-01-003.003 & 0807H-01-003.002). The site is 12.8 acres, undeveloped and zoned as Single-Family Residential (Medium Density) (R-1-15).

Location: The parcel is situated 2.5 miles from the Highway 49 traffic corridor. This site is situated 0.4 miles from Three Rivers Elementary School. Additionally, this alternative would be within 4.7 miles of Walmart Neighborhood Market. The location of this site also provides ease of access to facilities and leisure areas.

Environment: The proposed site location appears to contain +/- 7 acres of jurisdictional wetlands. The site is near single-family residential development but maintains valuable habitat corridors with adjacent upland food sources. The site is not adjacent to traditional navigable waters (TNW) nor is it tidally influenced.

Cost: The site is currently listed for \$128,000 (\$10,000 per acre). The need for site clearing, mitigation and purchase/transport of fill material contributes to the cost to develop the subject property.

Alternative Site “D”

Site “D” is located on 16th Street in Gulfport, MS (PIDN: 0709F-01-001.002). The site is 18.1 acres, undeveloped and zoned as Neighborhood Commercial (C-1). Rezoning would be required to achieve the product desired by the developer.

Location: The parcel is situated 0.8 miles from the Canal Road traffic corridor. The site is situated 4.2 miles from Orange Grove Elementary. Additionally, this site would be within 3.6 miles of Walmart Neighborhood Market. The location of this site provides ease of access to facilities and leisure areas, and it is next to Gulfport Sportsplex and Gulf Islands Waterpark.

Environment: This site location appears to contain +/- 16 acres of jurisdictional wetlands. The site is partially surrounded by commercial development, but it maintains a valuable habitat corridor that leads to Bernard Bayou. The site is not adjacent to traditional navigable waters (TNW) nor is it tidally influenced.

Cost: The site is currently listed for \$2,200,000 (\$137,500 per acre). The need for site clearing, mitigation and purchase/transport of fill material contributes to the cost to develop the subject property.

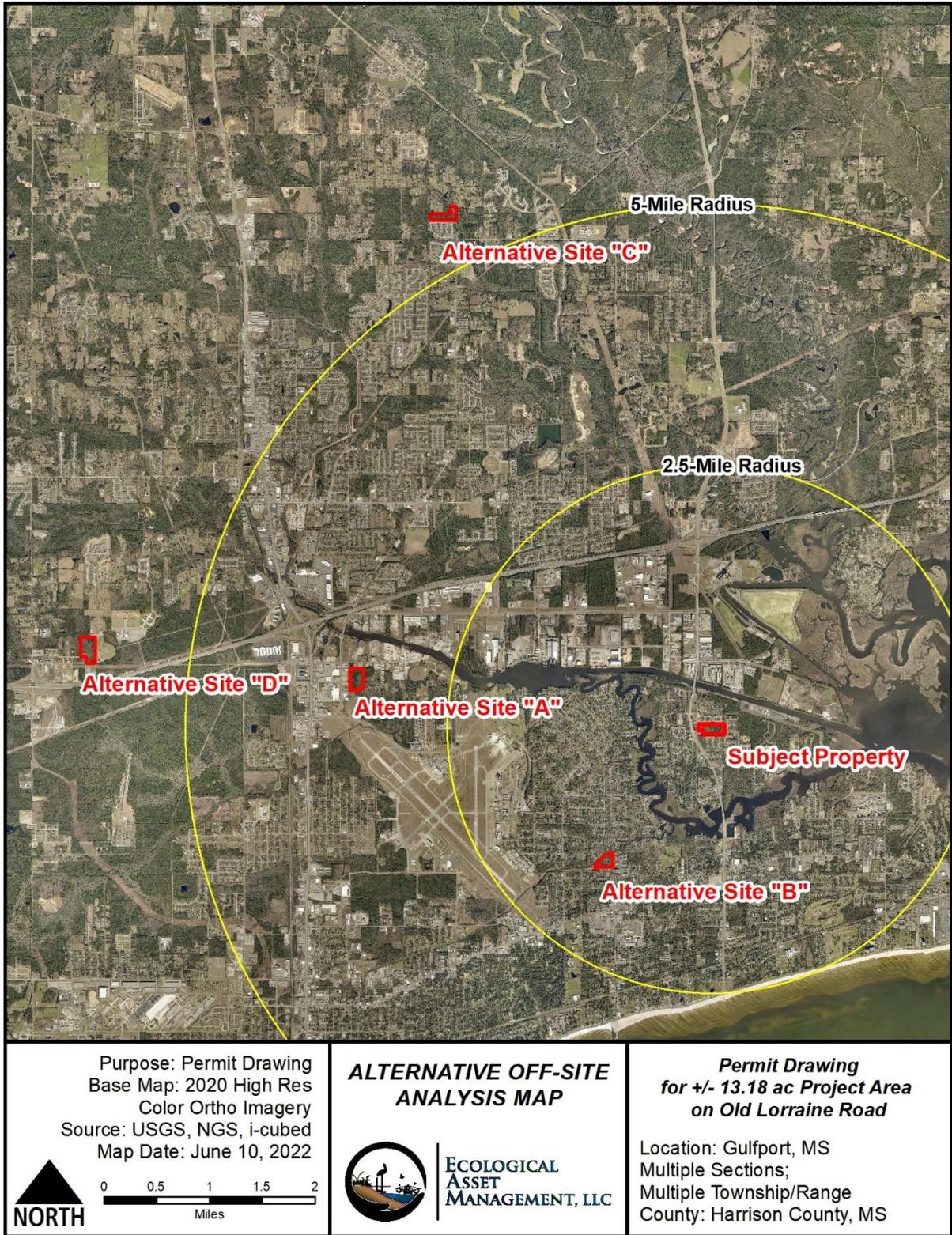


Figure C-1: Alternative Site Analysis Map



Esri, HERE, Garmin, (c) OpenStreetMap contributors

Purpose: Permit Drawing
 Base Map: 2020 High Res
 Color Ortho Imagery
 Source: MARIS & ESRI
 Map Date: June 10, 2022

NORTH

0 250 500 750 1,000
 Feet

**ALTERNATIVE OFF-SITE
 ANALYSIS MAP
 (Alternative Site "A")**

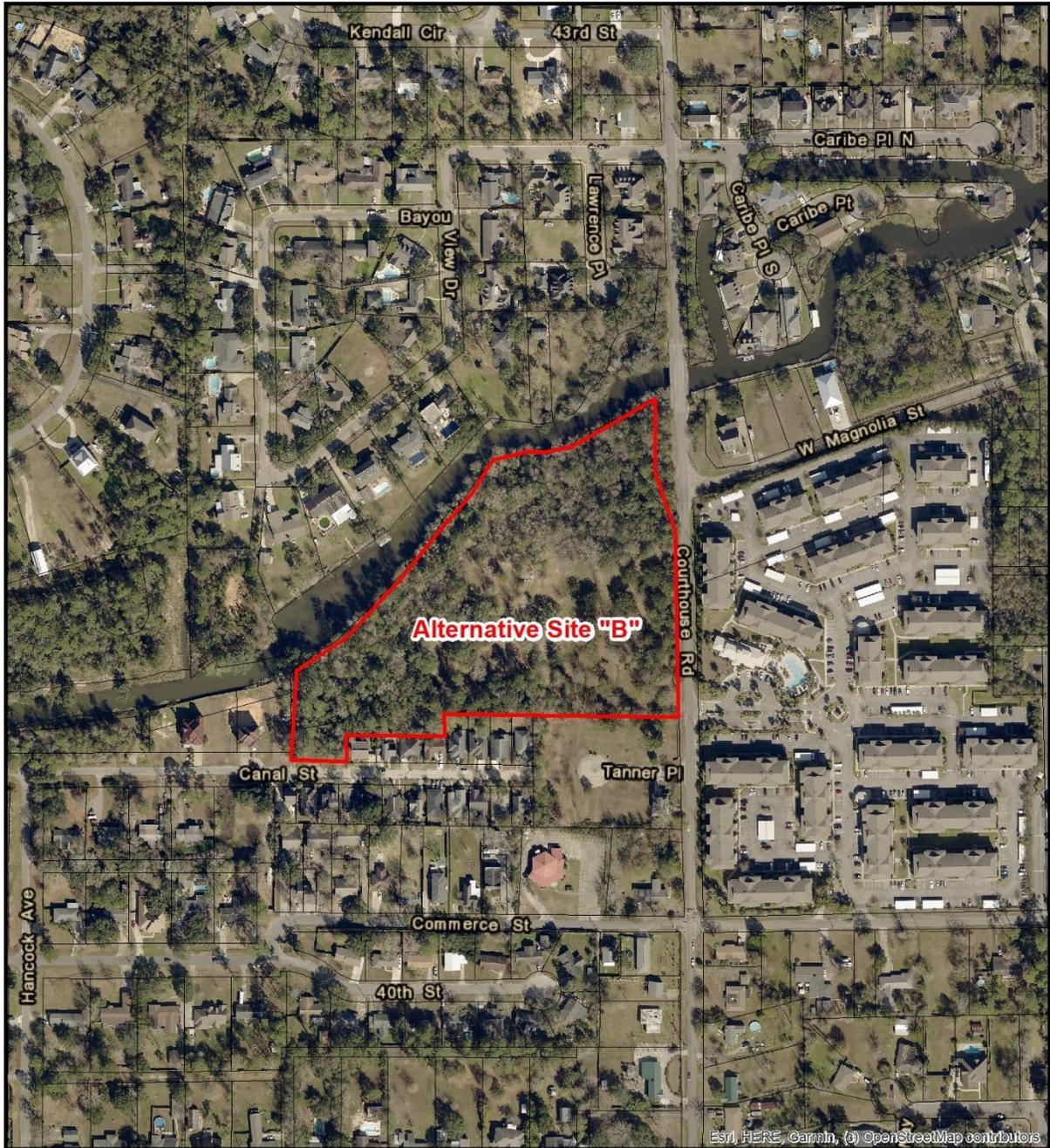


**ECOLOGICAL
 ASSET
 MANAGEMENT, LLC**

**Permit Drawing
 for +/- 13.18 ac Project Area
 on Old Lorraine Road**

Location: Gulfport, MS
 Multiple Sections;
 Multiple Township/Range
 County: Harrison County, MS

Figure C-1A: Alternative Site "A" Map



ESRI, HERE, Garmin, © OpenStreetMap contributors

Purpose: Permit Drawing
 Base Map: 2020 High Res
 Color Ortho Imagery
 Source: MARIS & ESRI
 Map Date: June 10, 2022

NORTH

0 125 250 375 500
 Feet

**ALTERNATIVE OFF-SITE
 ANALYSIS MAP
 (Alternative Site "B")**



**ECOLOGICAL
 ASSET
 MANAGEMENT, LLC**

**Permit Drawing
 for +/- 13.18 ac Project Area
 on Old Lorraine Road**

Location: Gulfport, MS
 Multiple Sections;
 Multiple Township/Range
 County: Harrison County, MS

Figure C-1B: Alternative Site "B" Map



Esri, HERE, Garmin, (c) OpenStreetMap contributors

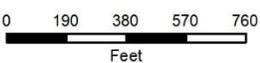
<p>Purpose: Permit Drawing Base Map: 2020 High Res Color Ortho Imagery Source: MARIS & ESRI Map Date: June 10, 2022</p>  <p>NORTH</p>  <p>0 190 380 570 760 Feet</p>	<p>ALTERNATIVE OFF-SITE ANALYSIS MAP (Alternative Site "C")</p>  <p>ECOLOGICAL ASSET MANAGEMENT, LLC</p>	<p>Permit Drawing for +/- 13.18 ac Project Area on Old Lorraine Road</p> <p>Location: Gulfport, MS Multiple Sections; Multiple Township/Range County: Harrison County, MS</p>
---	---	---

Figure C-1C: Alternative Site "C" Map



<p>Purpose: Permit Drawing Base Map: 2020 High Res Color Ortho Imagery Source: MARIS & ESRI Map Date: June 10, 2022</p> <p>NORTH</p> <p>0 175 350 525 700 Feet</p>	<p>ALTERNATIVE OFF-SITE ANALYSIS MAP (Alternative Site "D")</p>  <p>ECOLOGICAL ASSET MANAGEMENT, LLC</p>	<p>Permit Drawing for +/- 13.18 ac Project Area on Old Lorraine Road</p> <p>Location: Gulfport, MS Multiple Sections; Multiple Township/Range County: Harrison County, MS</p>
--	---	---

Figure C-1D: Alternative Site "D" Map

Appendix C-2

MDAH Letter for Cultural Resource Survey Assessment Response

Old Lorraine Road

Section 19, T-7-S, R-10-W
Gulfport, Harrison County, MS

March 15, 2022

Mr. Mitch Tinsley
Ecological Asset Management, LLC
803 Highway 90
Bay St. Louis, Mississippi 39520

RE: Proposed Fill of 4,000 Cubic Yards for the Construction of a Single Family Subdivision, Old Lorraine Road, S19, T7S, R10W, Gulfport, by Hillcrest Mini Storage, LLC, (USACE) MDAH Project Log #03-014-22, Harrison County

Dear Mr. Tinsley:

We have reviewed your March 2, 2022, request for a cultural resources assessment for the above referenced project, in accordance with our responsibilities under Section 106 of the National Historic Preservation Act and 36 CFR Part 800.

After review, due to the topography of the area, it is our determination that a cultural resources survey must be performed by a professional archaeologist. The resulting report should reference the project log number above on the title page.

A list of individuals who have represented themselves as being willing and qualified to do archaeological survey work in Mississippi will be furnished upon request. A copy of this letter should be made available to the contracting archaeologist(s).

If you have any questions, please do not hesitate to call us at (601) 576-6940.

Sincerely,



Hal Bell
Review and Compliance Officer

FOR: Katie Blount
State Historic Preservation Officer

Figure C-2: MDAH Letter of Survey to be Performed

Appendix C-3

Wetland Rapid Assessment Procedure (WRAP) For Environmental Assessment

Old Lorraine Road

Section 19, T-7-S, R-10-W
Gulfport, Harrison County, MS

WETLAND RAPID ASSESSMENT PROCEDURE

- PROPOSED
 EXISTING CONDITIONS

COUNTY: Harrison PROJECT: Old Lorraine Road DATE: 27-Sep-21 REVIEWER: D. Bartlett and R. Ellis FLUCCS CODE:
 APP. #: WETLAND TYPE: FORESTED Non-Forested

LAND USE CATEGORY	WETLAND AREA	SECONDARY IMPACTS	MELALEUCA INVASION >50%
Single Family Residential	2.49 ACRES	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES % = <u> </u>	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
	2.49 ACRES OF IMPACT	<u> </u> ACRES	

WILD LIFE UTILIZATION 1.5
 WETLAND CANOPY 1.5
 WETLAND GROUND COVER 1.5
 HABITAT SUPPORT / BUFFER 1

WRAP SCORE

41.67%

BUFFER TYPE	SCORE	% AREA	SUB TOTAL
Low intensity commercial	1	20	0.2
Single-family residential	1	80	0.8
			0
			0
			0

FIELD HYDROLOGY 1
 WATER QUALITY INPUT & TREATMENT 1

LAND USE CATEGORY	SCORE	% AREA	SUB TOTAL
Single-family residential	1.5	80	1.2
Low intensity commercial	2	20	0.4
			0
			0
			0
LU TOTAL			1.6

PRETREATMENT CATEGORY	SCORE	% AREA	SUB TOTAL
no treatment	0	80	0
combo. grass swales with dry detention	2	20	0.4
			0
			0
			0
PT TOTAL			0.4

WILDLIFE UTILIZATION
 Evidence of some wildlife utilization was observed on-site (scat, tracks, etc.). Limited amounts of upland food sources are present within the area's immediate vicinity. The site is surrounded (+/- 75%) by residential developments and is subject to disturbance. Adequate protective cover for wildlife.

WETLAND CANOPY
 Wetland overstory/shrub canopy is providing habitat support. Large amounts (+/- 50%) of undesirable tree or shrub species.

WETLAND GROUND COVER
 Ground cover exhibits large amounts of native plant species as well as undesirable species. The vegetative groundcover does not appear to be subject to frequent disturbance.

HABITAT SUPPORT/BUFFER
 The property is surrounded by single-family residential subdivisions and commercial property. There are no undeveloped wildlife corridors.

FIELD HYDROLOGY
 Notable amounts of evidence of upland plants encroaching into wetland areas were observed. Plant communities are healthy, although there may be some signs of improper hydrology.

WQ INPUT & TREATMENT
 The subject wetland receives surface water runoff from the adjacent single-family residential neighborhoods as well as the storage facility to the west. A man-made perimeter ditch spans the eastern and portions of the southern property line; this ditch aids in the management of water input.

Figure C-3: Old Lorraine Road Wetland Rapid Assessment Procedure (WRAP)