

# Exhibit P. Industrial Drive Minden Webster Site Wetland Delineation Memo





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## ***WETLAND DELINEATION MEMO – SEPTEMBER 22<sup>ND</sup>, 2021***

NORTH LOUISIANA ECONOMIC PARTNERSHIP  
INDUSTRIAL DRIVE MINDEN SITE  
WEBSTER PARISH, LA

Field Visit: September 7<sup>th</sup>, 2021

### **1) Purpose**

C. H. Fenstermaker & Associates, L.L.C. (Fenstermaker) was contracted by the North Louisiana Economic Partnership (Client) to conduct a routine wetland delineation for the proposed Industrial Drive Minden (Site). The site is located approximately 1.75 miles south of Minden, Louisiana and is approximately 26.5 acres in size.

The purpose of the wetland delineation was to determine the presence/absence of wetlands within the Site using the three technical criteria: vegetation, hydrology, and soils. It is necessary that all three criteria be present in order to be a jurisdictional wetland. The absence of any one of these criteria would exclude an area from being a wetland under the jurisdiction of the U.S. Army Corps of Engineers.

### **2) Materials & Methods**

On September 7<sup>th</sup>, 2021, Fenstermaker conducted a wetland delineation at the Site in accordance with the 1987 U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual and the 2010 Regional Supplement to the USACE Wetlands Delineation Manual: Atlantic and Gulf Coastal Plain Region, Version 2.0. Soils, hydrology, and vegetation data were collected and recorded at eleven sample points (SP 1-11). Photographs were taken of the soils and vegetation at each recorded sample point. Location data was collected using a Trimble R1 handheld Global Navigation Satellite System (GNSS) Receiver Unit.

### **3) Wetland Delineation Findings**

The wetland delineation identified two palustrine forested wetlands (**Table 3.1**) and four Other Waters (**Table 3.2**) within the boundaries of the Site. Wetland #1 (W 1) consisted of mixed pine and bottomland hardwoods and was recorded at the headwaters of Other Water # 3 (OW 3). Wetland #2 (W 2) was comprised of bottomland hardwoods and was recorded at the convergence of Other Waters #3 and #4 (OW 4). Dominant plant species within Wetland #1 included loblolly pine (*Pinus taeda*), red maple (*Acer rubrum*), and sweetgum (*Liquidambar styraciflua*). Dominant plant species within Wetland #2 included black gum (*Nyssa sylvatica*), sweetgum, and willow oak (*Quercus phellos*). Other Waters #2 (OW 2), #3 and #4 were classified as ephemeral streams and each feature started and ended within the boundaries of

the Site. Other Waters #1 (OW 1) was also classified as an ephemeral stream. This feature originated within the northeast corner of the Site and traversed in a northwesterly direction off-site. An ordinary high water mark approximately 1-ft. in width by 1-ft. in depth was identified within Other Waters 1-4.

Tables 3.1 below lists the wetlands identified throughout the Site in addition to wetland ID, linear footage, acreage, Cowardin classification, and wetland type.

<b>Table 3.1 Wetland Summary</b>				
<b>Wetland ID</b>	<b>Linear ft.</b>	<b>Acres</b>	<b>Cowardin Classification</b>	<b>Wetland Type</b>
<b>W-1</b>	31 X 30	0.02	PFO1/4	Mixed Pine/Bottomland Hardwood
<b>W-2</b>	40 X 45	0.03	PFO1	Bottomland Hardwoods
<b>Total</b>		<b>0.05</b>		

Tables 3.2 below lists the Other Waters identified throughout the Site in addition to the Water ID, linear footage, acres, Cowardin classification, and Waters Type.

<b>Table 3.2 Other Waters Summary</b>				
<b>Other Waters ID</b>	<b>Linear ft.</b>	<b>Acres</b>	<b>Cowardin Classification</b>	<b>Waters Type</b>
<b>OW-1</b>	153	0.004	PUB	Ephemeral
<b>OW-2</b>	502	0.01	PUB	Ephemeral
<b>OW-3</b>	455	0.01	PUB	Ephemeral
<b>OW-4</b>	618	0.01	PUB	Ephemeral
<b>Total</b>	<b>1,728</b>	<b>0.034</b>		

#### 4) Qualifications

Fenstermaker's environmental specialists on site have both completed the Richard Chinn, 38-hour Army Corps of Engineers, Wetland Delineation Training Program and have conducted numerous routine wetland delineations throughout Texas and Louisiana.

## 5) References

- Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
- Lewis M. Cowardin, Virginia Carter, Francis C. Golet, Edward T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service Report No. FWS/OBS/-79/31. Washington, D.C.
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. *Phytoneuron* 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X.
- Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: <https://websoilsurvey.sc.egov.usda.gov/>. Accessed Sept/11/2019.
- U.S. Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0), ed. J.S. Lichvar, and C.V. Noble. ERDC/EL TR-10-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2018. *Field Indicators of Hydric Soils in the United States*, version 8.2. L.M. Vasilas, G.W. Hurt, and J. F. Berkowitz (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

**NOTE:** The findings and conclusions of this report are Fenstermaker's opinion based upon a review of available published data sources and the field investigation. A jurisdictional determination can only be made by the USACE. Consultants such as Fenstermaker can perform field investigations (delineations), collect data in a prescribed manner, and submit it to the USACE along with recommendations; however, it is the USACE that makes the final determination. The USACE, Vicksburg District, has jurisdiction in the area of this project. A jurisdictional determination from the USACE would be needed to verify the findings within this report.



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## Wetland Delineation Map

North Louisiana Economic  
Partnership  
Industrial Drive Minden Site  
Webster Parish, LA

9/9/2021

Folder: T:\2021\2213734\ENVIRONMENTAL\GIS\

0 250 500 Feet  
Legend

- Survey Boundary (26.5 acres)
- Transects
- Sample Plot
- Other Waters
- Palustrine Forested Wetlands (PFO)



Approx. 1.75 miles from Minden, LA.

