

**WETLAND ANALYSIS REPORT  
MILLER SOUTHEAST RANGE PROPERTY  
LIVINGSTON PARISH, LOUISIANA**

**Prepared for:**

**MILLER SOUTHEAST RANGE, LTD.**

**APRIL, 2016**



**Prepared by:**

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## ***ABSTRACT***

This report describes the methodology and results of a "Routine Wetland Determination" as outlined in the *1987 Corps of Engineers Wetlands Delineation Manual* (COE Technical Report Y-87-1) and subsequent *Regulatory Guidance Letters* (RGL), as well as pertinent regional supplement. The report discusses in detail the specific steps utilized by D&S Environmental Services, Inc. (DSES) to derive an accurate description of jurisdictional wetlands, areas subject to regulation as navigable waters (Section 10) and "Other Waters of the United States" (Section 404) located within the subject property. DSES utilized technically experienced personnel (**Professional Wetland Scientist; Certification #1755**) along with cutting edge technology to meticulously depict the correct amount and location of jurisdictional wetlands, areas subject to regulation as navigable waters (Section 10) and "Other Waters of the United States" (Section 404) within the subject property. **Based on this "Routine Wetland Determination", the site contains 1.78 acres of jurisdictional wetlands and 0.16 acres of "Other Waters of the United States" (Section 404), which will require a DOA permit prior to any dredge/fill activity within these areas.** Under the authority of the Clean Water Act (Section 404) and the Rivers and Harbor Act (Section 10) the United States Army Corps of Engineers has the responsibility to make the final determination of the location and extent of jurisdictional wetlands, navigable waters (Section 10) and "Other Waters of the United States" (Section 10) within this property, respectively. This report represents the "best professional judgment" of DSES personnel and should be considered preliminary until final approval is obtained from the New Orleans District Army Corps of Engineers office.

## **INTRODUCTION**

This report describes the methodology and results of a "Routine Wetland Determination" regarding a 9.84-acre site located in Section 7, Township 7 South, Range 3 East, Livingston Parish, Louisiana on behalf of Miller Southeast Range, Ltd. The report discusses in detail the specific steps utilized by D&S Environmental Services, Inc. (DSES) to derive an accurate description of jurisdictional wetlands, areas subject to regulation as navigable waters (Section 10) and "Other Waters of the United States" (Section 404) located within the subject property.

Jurisdictional wetlands are defined as "areas that are inundated or saturated at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (40 CFR 230.3). The *1987 Corps of Engineers Wetlands Delineation Manual (COE Technical Report Y-87-1)* outlines the mandatory three-parameter/criteria for determining the presence of a jurisdictional wetland, which are: (1) hydrophytic vegetation, (2) wetland hydrology and (3) hydric soils. Due to obvious problem areas (prairie potholes, beaver dams, etc...), the aforementioned criteria are subject to some subjectivity.

### **Definitions**

A hydric soil is defined as a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (*US Department of Agriculture [USDA] Soil Conservation Service [SCS] 1994*).

Hydrophytic vegetation is defined herein as the sum total of macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content. When hydrophytic vegetation comprises a community where indicators of hydric soils and wetland hydrology also occur, the area has wetland vegetation (*COE Technical Report Y-87-1*).

The term "wetland hydrology" encompasses the sum total of wetness characteristics in areas that are inundated or have saturated soils for a sufficient duration to support hydrophytic vegetation (*COE Technical Report Y-87-1*).

Deepwater aquatic habitats are "areas that are permanently inundated at mean annual water depths >6.6 feet or permanently inundated areas, ≤6.6 feet in depth that do not support rooted-emergent or woody plant species" (*Environmental Laboratory. 1987. "COE Wetlands Delineation Manual, Technical Report Y-87-1, U. S. Army Engineer Waterways Experiment Station, Vicksburg, Miss.*). Any area that meets this description is commonly classified as "Other Waters of the United States".

## **SITE DESCRIPTION**

### **Specific Location**

The site is located in Section 7, Township 7 South, Range 3 East, Livingston Parish, Louisiana (Figure 1). More specifically, the site is located south and east of the “dead end” of Shady Park Road, approximately 0.08 miles east of the intersection at Shady Park Road and LA Highway 3002 (South Range Avenue), as depicted in Figures 1 & 2.

### **History & Physiography**

Historically, west-central Livingston Parish was formed from a sheeting hydrological effect, which resulted in “prairie terrace” type topography. This particular region is composed of Peoria loess of the late-Pleistocene age, which gives rise to level to gently sloping elevations at approximately 35 feet above sea level. This site drains into upper branches of Millers Canal, which flows into Grays Creek, thence into Grays Creek Lake and eventually empties into the Amite River in the lower portion of the parish (Port Vincent). Currently, the entire site is undeveloped “raw property” comprised of two major vegetative community types, which are a remnant pine plantation with a mixture of pine-bottomland hardwood species (majority, non-wetland) and bottomland hardwood with a minor herbaceous component (jurisdictional wetlands). The jurisdictional wetland areas are located in shallow depressions, swales / drainageways and drainage overflow areas, which are typical in this geographical location (Figure 2).

## **METHODOLOGY**

DSES utilized wetland delineation methods that are consistent with the *1987 Corps of Engineers Wetlands Delineation Manual* (COE Technical Report Y-87-1) and subsequent *Regulatory Guidance Letters* (RGL), as well as pertinent regional supplement, (see below for reference material).

### **Reference Material**

- Livingston Parish, Louisiana (January, 1991) Soil Survey
- Soil Mapping Units and Hydric Soils Designations, Louisiana, (May, 1995)
- State of Louisiana-National Wetland Plant List-Final Draft Ratings U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory (CRREL) (2012).

DSES personnel were on-site on April 15, 2016, to determine the extent and location of jurisdictional wetlands, areas subject to regulation as navigable waters (Section 10) and “Other Waters of the United States” (Section 404). Data plots were established at vegetation community change throughout the site and recorded on a COE approved “Final Wetland Determination Data Form-Atlantic and Gulf Coastal Plain Region-

Version 2" (Appendix I). Plot sizes were sampled within areas either containing a 30-foot radius or equivalent area for each vegetative community of interest.

Dominant vegetation is based on the species that are most abundant within a plot and have a threshold value that is  $\geq 20\%$ . These vegetative species are used in the three-parameter/criteria to determine site wetness and are recorded based on ocular estimation or percent cover. Dominant plant species were recorded in the following strata: Tree, Sapling, Shrub, Herbaceous and/or Woody Vine. Additionally, each species is represented by a wetland indicator value, which corresponds with its "wetland status".

Soil observations were made by using a 2 3/4" bucket auger to extract a 12" (minimum) plug. Each soil plug was compared to a Munsell Soil Color Chart to correlate the soil color/texture at an approximate 10" depth. Soil color/texture is vital in proving/disproving anaerobic conditions.

Hydrology was assessed from various observations, which include, but are not limited to soil characteristics, dominant vegetative communities, physiographic properties, and other tangible observations, such as primary and secondary indicators (Final Wetland Determination Data Form-Atlantic and Gulf Coastal Plain Region-Version 2).

Data plots, natural resources (jurisdictional wetlands and/or Other Waters of the U.S.) and other diagnostic land features were mapped utilizing a Trimble-Pro XRS global positioning system (GPS). Real time corrections were made utilizing the radio signal based on the Radio Technical Commission for Maritime Services Special Committee Paper No. 104 (RTCM SC- 104) format.

## **RESULTS**

### **Vegetation**

The jurisdictional wetland areas are primarily dominated by red maple (*Acer rubrum*), Chinese tallow-tree (*Triadica sebiferum*), water oak (*Quercus nigra*), green ash (*Fraxinus pennsylvanica*), American elm (*Ulmus americana*), spruce pine (*Pinus glabra*), willow oak (*Quercus phellos*), swamp chestnut oak (*Quercus michauxii*), dwarf palmetto (*Sabal minor*), brome-like sedge (*Carex bromoides*), lamp rush (*Juncus effusus*), lizard's-tail (*Saururus cernuus*), loose-flower water-willow (*Justicia ovata*), iris (*Iris sp.*), many-flower penny-wort (*Hydrocotyle umbellata*), royal fern (*Osmunda regalis*), cinnamon fern (*Osmunda cinnamomea*), poison ivy (*Toxicodendron radicans*), trumpet-creeper (*Campsis radicans*), Alabama supplejack (*Berchemia scandens*), horsebrier (*Smilax rotundifolia*), etc. The non-wetland areas are primarily dominated by loblolly pine (*Pinus taeda*), sweet-gum (*Liquidambar styraciflua*), winged elm (*Ulmus alata*), water oak (*Quercus nigra*), southern red oak (*Quercus falcata*), cherry-bark oak (*Quercus pagoda*), swamp chestnut oak (*Quercus michauxii*), American beech (*Fagus grandifolia*), southern magnolia (*Magnolia grandiflora*), black cherry (*Prunus serotina*), persimmon (*Diospyros virginiana*), Chinese privet (*Ligustrum sinense*), yaupon (*Ilex vomitoria*), American holly (*Ilex opaca*), American beauty-berry (*Callicarpa americana*), long-leaf wood-oats

(*Chasmanthium sessiliflorum*), muscadine (*Vitis rotundifolia*), Japanese climbing fern (*Lygodium japonicum*), crossvine (*Bignonia capreolata*), Japanese honeysuckle (*Lonicera japonica*) fringed greenbrier (*Smilax bona-nox*), poison ivy (*Toxicodendron radicans*), trumpet-creeper (*Campsis radicans*), etc.

## Hydrology

Positive primary and secondary wetland hydrology indicators such as high water table, saturation, sediment deposits, oxidized rhizospheres along living roots, positive FAC-Neutral test, etc... were observed within the jurisdictional wetland areas. These indicators were absent in the non-wetland portions of the site.

## Soils

The Soil Survey indicates the site is underlain by Dv: Deerford-Verdun silt loams, which are located in level to gently sloping areas and classified somewhat poorly drained. Additionally, the Soil Survey indicates site is underlain by Ge: Gilbert-Brimstone silt loams, occasionally flooded, which are located in level to depressed areas and classified poorly drained. According to the *Soils Mapping Units and Hydric Soils Designations, Louisiana*, (May, 1995), Deerford and Verdun soils are classified non-hydric, whereas, Brimstone and Gilbert soils are classified hydric. However, Deerford and Verdun mapped areas may be hydric provided inclusions are present. Observations by DSES personnel during the site visit agree with the descriptions for the soil series described in the Soil Survey, but disagree with portions of the mapping locations.

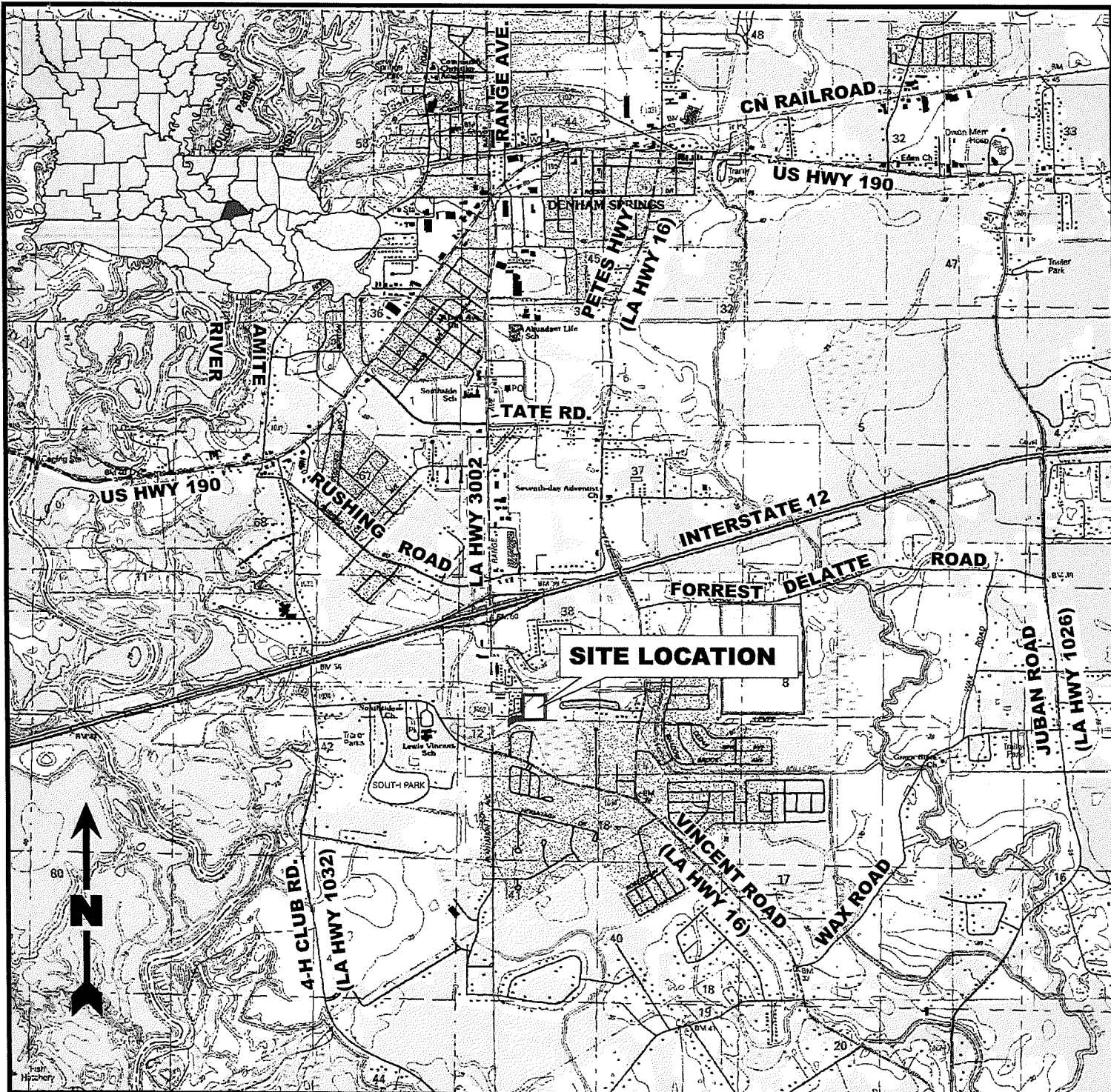
## CONCLUSION

In accordance with the *1987 Corps of Engineers Wetlands Delineation Manual* (COE Technical Report Y-87-1) and subsequent *Regulatory Guidance Letters* (RGL), as well as pertinent regional supplement, DSES utilized technically experienced personnel (**Professional Wetland Scientist; Certification #1755**) along with cutting edge technology to meticulously depict the correct amount and location of jurisdictional wetlands, areas subject to regulation as navigable waters (Section 10) and "Other Waters of the United States" (Section 404) within the subject property. **Based on this "Routine Wetland Determination", the site contains 1.78 acres of jurisdictional wetlands and 0.16 acres of "Other Waters of the United States" (Section 404), which will require a DOA permit prior to any dredge/fill activity within these areas.**

*Under the authority of the Clean Water Act (Section 404) and the Rivers and Harbor Act (Section 10) the United States Army Corps of Engineers has the responsibility to make the final determination of the location and extent of jurisdictional wetlands, navigable waters (Section 10) and "Other Waters of the United States" (Section 404) within this property, respectively. This report represents the "best professional judgment" of DSES personnel and should be considered preliminary until final approval is obtained from the New Orleans District Army Corps of Engineers office.*

## FIGURES





3,300' 0 3,300'

Scale: 1" = 3,300'

## Notes

Property is located in Sections 7 T7S-R3E

Latitude: 30°26'55.47"N Longitude: 90°57'11.21"W

## Reference

Base map comprised of U.S.G.S. 7.5 minute topographic maps "Denham Springs, LA".

Miller Southeast Range, Ltd.

Miller Southeast Range Property

## Vicinity Map

Livingston Parish, Louisiana



**D & S**  
ENVIRONMENTAL SERVICES, INC.



Project No.: 14-2016-JDM

Date: 04-17-2016

Figure No.: 1

Miller Southeast Range, Ltd.

Miller Southeast Range Property

Jurisdictional Wetlands Map

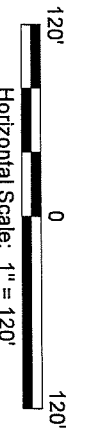
Livingston Parish, Louisiana



Project No.: 14-2016-JDM Date: 04-17-2016 Figure No.: 2

Legend

- Property Boundary (9.84 Acres)
- Non-Wetlands (7.90 Acres)
- Jurisdictional Wetlands (1.78 Acres)
- Other Waters Of The US (0.16 Acres)
- DP Data Plot
- Data Plots



Horizontal Scale: 1" = 120'

SECTION 38  
SECTION 7

POWERLINE RIGHT OF WAY

598'

DITCH

DP-3

DITCH

CULVERT

631'

MILLER'S CANAL TRIBUTARY

RESIDENTIAL SUBDIVISION

PARK PLACE APARTMENTS

510'

CULVERT

DP-2

SHADY PARK ROAD

187'

69'

0.08 mi TO  
LA HWY 3002  
(S. RANGE AVE.) 13'

DP-1

MILLER'S CANAL TRIBUTARY

693'

179'

PLANTATION

SOUTH APARTMENTS

BOARDWALK

PLACE OF DENHAM SPRINGS

## **APPENDIX I**

# **FINAL WETLAND DETERMINATION DATA FORM-ATLANTIC AND GULF COASTAL PLAIN REGION-VERSION 2**

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

Project/Site: Miller Southeast Range Property City/County: Livingston Parish Sampling Date: 4-15-16  
 Applicant/Owner: Miller Southeast Range, Ltd. State: LA Sampling Point: DP-1  
 Investigator(s): DSES (David C. Templet, Jr.) Section, Township, Range: Section 7, Township 7 South, Range 3 East  
 Landform (hillslope, terrace, etc.): level to gently sloping topo. Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): 0 to 1  
 Subregion (LRR or MLRA): LRR=P & MLRA=134 Lat: 30°26'55.47"N Long: 90°57'11.21"W Datum: NAD 83  
 Soil Map Unit Name: Ge: Gilbert-Brimstone silt loams, occasionally flooded NWI classification: -Non-listed

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 _____                                                                                                                   | Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> |
| Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>                                                                                                                              |                                                                                        |
| Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>                                                                                                                        |                                                                                        |
| Remarks:<br>- Data Plot is located on a well drained ridge within a remnant silviculture pine plantation, which is currently in a "post-thinning" late stage of rotation (see "Site Photographs"). |                                                                                        |

## HYDROLOGY

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Wetland Hydrology Indicators:</b><br><u>Primary Indicators (minimum of one is required; check all that apply)</u><br>_____ Surface Water (A1) _____ Aquatic Fauna (B13)<br>_____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U)<br>_____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1)<br>_____ Water Marks (B1) _____ Oxidized Rhizospheres along Living Roots (C3)<br>_____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4)<br>_____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6)<br>_____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7)<br>_____ Iron Deposits (B5) _____ Other (Explain in Remarks)<br>_____ Inundation Visible on Aerial Imagery (B7)<br>_____ Water-Stained Leaves (B9) |                                                                                    | <u>Secondary Indicators (minimum of two required)</u><br>_____ Surface Soil Cracks (B6)<br>_____ Sparsely Vegetated Concave Surface (B8)<br>_____ Drainage Patterns (B10)<br>_____ Moss Trim Lines (B16)<br>_____ Dry-Season Water Table (C2)<br>_____ Crayfish Burrows (C8)<br>_____ Saturation Visible on Aerial Imagery (C9)<br>_____ Geomorphic Position (D2)<br>_____ Shallow Aquitard (D3)<br>_____ FAC-Neutral Test (D5)<br>_____ Sphagnum moss (D8) (LRR T, U) |
| <b>Field Observations:</b><br>Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____<br>Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____<br>(includes capillary fringe)                                                                                                                                                                                                                                                                                                                                                                                                | <b>Wetland Hydrology Present?</b> Yes _____ No <input checked="" type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:<br>- Extrapolated data from aerial photographs & LIDAR data were consistent with non-wetland characteristics.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Remarks:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: DP-1

| Tree Stratum (Plot size: <u>30'</u> )                            | Absolute % Cover | Dominant Species? | Indicator Status |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
|------------------------------------------------------------------|------------------|-------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------|-------------------|----------------|--------------------|----------------|-------------------|----------------|--------------------|----------------|-------------------|----------------|-----------------------------|--------------|
| 1. <u>Pinus taeda</u>                                            | <u>50</u>        | <u>yes</u>        | <u>FAC</u>       | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>10</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>12</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83.33%</u> (A/B)                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 2. <u>Liquidambar styraciflua</u>                                | <u>10</u>        | <u>no</u>         | <u>FAC</u>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 3. <u>Ulmus alata</u>                                            | <u>10</u>        | <u>no</u>         | <u>FACU</u>      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 4. _____                                                         | _____            | _____             | _____            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 5. _____                                                         | _____            | _____             | _____            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 6. _____                                                         | _____            | _____             | _____            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| <u>70</u> = Total Cover                                          |                  |                   |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 50% of total cover: <u>35</u> 20% of total cover: <u>14</u>      |                  |                   |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| Sapling Stratum (Plot size: <u>30'</u> )                         | Absolute % Cover | Dominant Species? | Indicator Status |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 1. <u>Liquidambar styraciflua</u>                                | <u>20</u>        | <u>yes</u>        | <u>FAC</u>       | <b>Prevalence Index worksheet:</b><br><table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = _____                                                                                                                                                                    | Total % Cover of: | Multiply by: | OBL species _____ | x 1 = <u>0</u> | FACW species _____ | x 2 = <u>0</u> | FAC species _____ | x 3 = <u>0</u> | FACU species _____ | x 4 = <u>0</u> | UPL species _____ | x 5 = <u>0</u> | Column Totals: <u>0</u> (A) | <u>0</u> (B) |
| Total % Cover of:                                                | Multiply by:     |                   |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| OBL species _____                                                | x 1 = <u>0</u>   |                   |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| FACW species _____                                               | x 2 = <u>0</u>   |                   |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| FAC species _____                                                | x 3 = <u>0</u>   |                   |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| FACU species _____                                               | x 4 = <u>0</u>   |                   |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| UPL species _____                                                | x 5 = <u>0</u>   |                   |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| Column Totals: <u>0</u> (A)                                      | <u>0</u> (B)     |                   |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 2. <u>Ulmus alata</u>                                            | <u>15</u>        | <u>yes</u>        | <u>FACU</u>      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 3. <u>Quercus nigra</u>                                          | <u>10</u>        | <u>no</u>         | <u>FAC</u>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 4. <u>Prunus serotina</u>                                        | <u>10</u>        | <u>no</u>         | <u>FACU</u>      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 5. <u>Diospyros virginiana</u>                                   | <u>7.5</u>       | <u>no</u>         | <u>FAC</u>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 6. <u>Magnolia grandiflora</u>                                   | <u>5</u>         | <u>no</u>         | <u>FAC</u>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| <u>67.5</u> = Total Cover                                        |                  |                   |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 50% of total cover: <u>33.75</u> 20% of total cover: <u>13.5</u> |                  |                   |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| Shrub Stratum (Plot size: <u>30'</u> )                           | Absolute % Cover | Dominant Species? | Indicator Status |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 1. <u>Liquidambar styraciflua</u>                                | <u>25</u>        | <u>yes</u>        | <u>FAC</u>       | <b>Hydrophytic Vegetation Indicators:</b><br>___ 1 - Rapid Test for Hydrophytic Vegetation<br>___ 2 - Dominance Test is >50%<br>___ 3 - Prevalence Index is ≤3.0 <sup>1</sup><br>___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 2. <u>Ilex vomitoria</u>                                         | <u>15</u>        | <u>yes</u>        | <u>FAC</u>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 3. <u>Callicarpa americana</u>                                   | <u>10</u>        | <u>yes</u>        | <u>FACU</u>      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 4. _____                                                         | _____            | _____             | _____            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 5. _____                                                         | _____            | _____             | _____            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 6. _____                                                         | _____            | _____             | _____            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| <u>50</u> = Total Cover                                          |                  |                   |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>      |                  |                   |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| Herb Stratum (Plot size: <u>30'</u> )                            | Absolute % Cover | Dominant Species? | Indicator Status |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 1. <u>Chasmanthium sessiliflorum</u>                             | <u>20</u>        | <u>yes</u>        | <u>FAC</u>       | <b>Definitions of Five Vegetation Strata:</b><br><br><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).<br><br><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.<br><br><b>Shrub</b> – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.<br><br><b>Herb</b> – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.<br><br><b>Woody vine</b> – All woody vines, regardless of height. |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 2. <u>Toxicodendron radicans</u>                                 | <u>10</u>        | <u>yes</u>        | <u>FAC</u>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 3. <u>Lonicera japonica</u>                                      | <u>2.5</u>       | <u>no</u>         | <u>FAC</u>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 4. <u>Lygodium japonicum</u>                                     | <u>2.5</u>       | <u>no</u>         | <u>FAC</u>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 5. _____                                                         | _____            | _____             | _____            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 6. _____                                                         | _____            | _____             | _____            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 7. _____                                                         | _____            | _____             | _____            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 8. _____                                                         | _____            | _____             | _____            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 9. _____                                                         | _____            | _____             | _____            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 10. _____                                                        | _____            | _____             | _____            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 11. _____                                                        | _____            | _____             | _____            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| <u>35</u> = Total Cover                                          |                  |                   |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u>     |                  |                   |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| Woody Vine Stratum (Plot size: <u>30'</u> )                      | Absolute % Cover | Dominant Species? | Indicator Status |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 1. <u>Toxicodendron radicans</u>                                 | <u>2.5</u>       | <u>yes</u>        | <u>FAC</u>       | <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 2. <u>Campsis radicans</u>                                       | <u>2.5</u>       | <u>yes</u>        | <u>FAC</u>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 3. <u>Vitis rotundifolia</u>                                     | <u>2.5</u>       | <u>yes</u>        | <u>FAC</u>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 4. <u>Smilax bona-nox</u>                                        | <u>2.5</u>       | <u>yes</u>        | <u>FAC</u>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 5. _____                                                         | _____            | _____             | _____            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| <u>10</u> = Total Cover                                          |                  |                   |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |
| 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>        |                  |                   |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |              |                   |                |                    |                |                   |                |                    |                |                   |                |                             |              |

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

- Although hydrophytic vegetation is prevalent, the overall species composition is skewed toward upland, and the other two criteria are not met to classify this area as a jurisdictional wetland (See "Site Photographs").

## SOIL

Sampling Point: DP-1

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

| Depth<br>(inches) | Matrix         |     | Redox Features |     |                   |                  | Texture   | Remarks                     |
|-------------------|----------------|-----|----------------|-----|-------------------|------------------|-----------|-----------------------------|
|                   | Color (moist)  | %   | Color (moist)  | %   | Type <sup>1</sup> | Loc <sup>2</sup> |           |                             |
| 0-12              | 10yr 6/2 & 6/4 | 100 | N/A            | N/A |                   |                  | silt loam | indicative of the Sa series |
|                   |                |     |                |     |                   |                  |           |                             |
|                   |                |     |                |     |                   |                  |           |                             |
|                   |                |     |                |     |                   |                  |           |                             |
|                   |                |     |                |     |                   |                  |           |                             |
|                   |                |     |                |     |                   |                  |           |                             |
|                   |                |     |                |     |                   |                  |           |                             |
|                   |                |     |                |     |                   |                  |           |                             |
|                   |                |     |                |     |                   |                  |           |                             |
|                   |                |     |                |     |                   |                  |           |                             |

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

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)                        |
| <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)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <input type="checkbox"/> (MLRA 153B)                                   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)                                         | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <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, unless disturbed or problematic.

Restrictive Layer (if observed):

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

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

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

Remarks:

- Soil sample is indicative of the Satsuma series.
- See "Site Photographs" to obtain visual confirmation.

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

Project/Site: Miller Southeast Range Property City/County: Livingston Parish Sampling Date: 4-15-16  
 Applicant/Owner: Miller Southeast Range, Ltd. State: LA Sampling Point: DP-2  
 Investigator(s): DSES (David C. Templet, Jr.) Section, Township, Range: Section 7, Township 7 South, Range 3 East  
 Landform (hillslope, terrace, etc.): level to depressed topo. Local relief (concave, convex, none): concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): LRR=P & MLRA=134 Lat: 30°26'55.47"N Long: 90°57'11.21"W Datum: NAD 83  
 Soil Map Unit Name: Ge: Gilbert-Brimstone silt loams, occasionally flooded NWI classification: -Non-listed

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 <input type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>            |                                                                                                           |
| Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>      |                                                                                                           |
| Remarks:<br>- Data Plot is located in a poorly drained swale / drainageway (see Site Photographs).  |                                                                                                           |

## HYDROLOGY

| Wetland Hydrology Indicators:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                | Secondary Indicators (minimum of two required)                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| Primary Indicators (minimum of one is required; check all that apply)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                               |
| <input type="checkbox"/> Surface Water (A1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <input type="checkbox"/> Aquatic Fauna (B13)                                                   | <input type="checkbox"/> Surface Soil Cracks (B6)                             |
| <input checked="" type="checkbox"/> High Water Table (A2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <input type="checkbox"/> Marl Deposits (B15) (LRR U)                                           | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)              |
| <input checked="" type="checkbox"/> Saturation (A3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                                            | <input type="checkbox"/> Drainage Patterns (B10)                              |
| <input checked="" type="checkbox"/> Water Marks (B1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)              | <input type="checkbox"/> Moss Trim Lines (B16)                                |
| <input checked="" type="checkbox"/> Sediment Deposits (B2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <input type="checkbox"/> Presence of Reduced Iron (C4)                                         | <input type="checkbox"/> Dry-Season Water Table (C2)                          |
| <input checked="" type="checkbox"/> Drift Deposits (B3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)                            | <input checked="" type="checkbox"/> Crayfish Burrows (C8)                     |
| <input type="checkbox"/> Algal Mat or Crust (B4)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <input type="checkbox"/> Thin Muck Surface (C7)                                                | <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Iron Deposits (B5)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <input type="checkbox"/> Other (Explain in Remarks)                                            | <input type="checkbox"/> Geomorphic Position (D2)                             |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                | <input type="checkbox"/> Shallow Aquitard (D3)                                |
| <input checked="" type="checkbox"/> Water-Stained Leaves (B9)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                | <input checked="" type="checkbox"/> FAC-Neutral Test (D5)                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                | <input checked="" type="checkbox"/> Sphagnum moss (D8) (LRR T, U)             |
| Field Observations:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                |                                                                               |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>*Remarks</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |                                                                               |
| Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                |                                                                               |
| Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u><br>(includes capillary fringe)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                               |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:<br>- Extrapolated information from aerial photographs and LIDAR data are consistent with wetland characteristics.                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                |                                                                               |
| Remarks:<br>* Although by definition the "surface water" criteria was not met, there are sporadic pockets of surface water throughout, as well as a high water table, saturation, oxidized rhizospheres along living roots, positive FAC-Neutral Test (dominance of hydrophytic vegetation), etc. that attest to the areas frequently flooded nature or ultimate site wetness.<br><br>- Worthy of mention, this area drains into Miller's Canal along the south and east boundaries, which flows into Grays Creek further downstream, thence into Grays Creek Lake and finally empties into the Amite River in the lower reaches of the parish (Port Vincent). |                                                                                                |                                                                               |

**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: **DP-2**

| Tree Stratum (Plot size: 30') |                  |                   |                  |
|-------------------------------|------------------|-------------------|------------------|
|                               | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. <i>Triadica sebifera</i>   | 20               | yes               | FAC              |
| 2. <i>Acer rubrum</i>         | 15               | yes               | FAC              |
| 3. _____                      | _____            | _____             | _____            |
| 4. _____                      | _____            | _____             | _____            |
| 5. _____                      | _____            | _____             | _____            |
| 6. _____                      | _____            | _____             | _____            |

35 = Total Cover

50% of total cover: 17.5 20% of total cover: 7

| Sapling Stratum (Plot size: 30') |                  |                   |                  |
|----------------------------------|------------------|-------------------|------------------|
|                                  | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. <i>Acer rubrum</i>            | 10               | yes               | FAC              |
| 2. <i>Triadica sebifera</i>      | 7.5              | yes               | FAC              |
| 3. <i>Quercus nigra</i>          | 5                | yes               | FACU             |
| 4. _____                         | _____            | _____             | _____            |
| 5. _____                         | _____            | _____             | _____            |
| 6. _____                         | _____            | _____             | _____            |

22.5 = Total Cover

50% of total cover: 11.25 20% of total cover: 4.5

| Shrub Stratum (Plot size: 30') |                  |                   |                  |
|--------------------------------|------------------|-------------------|------------------|
|                                | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. <i>Crataegus opaca</i>      | 5                | yes               | OBL              |
| 2. _____                       | _____            | _____             | _____            |
| 3. _____                       | _____            | _____             | _____            |
| 4. _____                       | _____            | _____             | _____            |
| 5. _____                       | _____            | _____             | _____            |
| 6. _____                       | _____            | _____             | _____            |

5 = Total Cover

50% of total cover: 2.5 20% of total cover: 1

| Herb Stratum (Plot size: 30') |                  |                   |                  |
|-------------------------------|------------------|-------------------|------------------|
|                               | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. <i>Carex bromoides</i>     | 10               | yes               | FACW             |
| 2. _____                      | _____            | _____             | _____            |
| 3. _____                      | _____            | _____             | _____            |
| 4. _____                      | _____            | _____             | _____            |
| 5. _____                      | _____            | _____             | _____            |
| 6. _____                      | _____            | _____             | _____            |
| 7. _____                      | _____            | _____             | _____            |
| 8. _____                      | _____            | _____             | _____            |
| 9. _____                      | _____            | _____             | _____            |
| 10. _____                     | _____            | _____             | _____            |
| 11. _____                     | _____            | _____             | _____            |

10 = Total Cover

50% of total cover: 5 20% of total cover: 2

| Woody Vine Stratum (Plot size: 30') |                  |                   |                  |
|-------------------------------------|------------------|-------------------|------------------|
|                                     | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. <i>Toxicodendron radicans</i>    | 2.5              | yes               | FAC              |
| 2. <i>Campsis radicans</i>          | 2.5              | yes               | FAC              |
| 3. <i>Smilax rotundifolia</i>       | 2.5              | yes               | FAC              |
| 4. _____                            | _____            | _____             | _____            |
| 5. _____                            | _____            | _____             | _____            |

7.5 = Total Cover

50% of total cover: 3.75 20% of total cover: 1.5

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 10 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

| Total % Cover of:    | Multiply by: |
|----------------------|--------------|
| OBL species _____    | x 1 = 0      |
| FACW species _____   | x 2 = 0      |
| FAC species _____    | x 3 = 0      |
| FACU species _____   | x 4 = 0      |
| UPL species _____    | x 5 = 0      |
| Column Totals: 0 (A) | 0 (B)        |

Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation  
☐ 2 - Dominance Test is >50%  
☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Five Vegetation Strata:**
**Tree** – 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).

**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

**Woody vine** – All woody vines, regardless of height.

Hydrophytic Vegetation Present?

 Yes ☒ No ☐

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

- See "Site Photographs" to obtain visual confirmation.



## SOIL

Sampling Point: DP-2

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

| Depth<br>(inches) | Matrix         |    | Redox Features |    |                   |                  | Texture   | Remarks                     |
|-------------------|----------------|----|----------------|----|-------------------|------------------|-----------|-----------------------------|
|                   | Color (moist)  | %  | Color (moist)  | %  | Type <sup>1</sup> | Loc <sup>2</sup> |           |                             |
| 0-12              | 10yr 6/1 & 6/2 | 85 | 10yr 5/6       | 15 | C                 | M                | silt loam | indicative of the Ge series |
|                   |                |    |                |    |                   |                  |           |                             |
|                   |                |    |                |    |                   |                  |           |                             |
|                   |                |    |                |    |                   |                  |           |                             |
|                   |                |    |                |    |                   |                  |           |                             |
|                   |                |    |                |    |                   |                  |           |                             |
|                   |                |    |                |    |                   |                  |           |                             |
|                   |                |    |                |    |                   |                  |           |                             |

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

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)                        |
| <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 checked="" type="checkbox"/> Depleted Matrix (F3)                            | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <input type="checkbox"/> (MLRA 153B)                                   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)                                         | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <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, unless disturbed or problematic.

Restrictive Layer (if observed):

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

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

Hydric Soil Present? Yes ☒ No ☐

Remarks:

- Soil sample is indicative of the Gilbert-Brimstone series.
- See "Site Photographs" to obtain visual confirmation.

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

Project/Site: Miller Southeast Range Property City/County: Livingston Parish Sampling Date: 4-15-16  
 Applicant/Owner: Miller Southeast Range, Ltd. State: LA Sampling Point: DP-3  
 Investigator(s): DSES (David C. Templet, Jr.) Section, Township, Range: Section 7, Township 7 South, Range 3 East  
 Landform (hillslope, terrace, etc.): level to gently sloping topo. Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): 0 to 1  
 Subregion (LRR or MLRA): LRR=P & MLRA=134 Lat: 30°26'55.47"N Long: 90°57'11.21"W Datum: NAD 83  
 Soil Map Unit Name: Dv: Deerford-Verdun silt loams NWI classification: -Non-listed

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 _____                                                                                                                   | Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> |
| Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>                                                                                                                              |                                                                                        |
| Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>                                                                                                                        |                                                                                        |
| Remarks:<br>- Data Plot is located on a well drained ridge within a remnant silviculture pine plantation, which is currently in a "post-thinning" late stage of rotation (see "Site Photographs"). |                                                                                        |

## HYDROLOGY

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Wetland Hydrology Indicators:</b><br><b>Primary Indicators (minimum of one is required; check all that apply)</b><br><input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Aquatic Fauna (B13)<br><input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Marl Deposits (B15) (LRR U)<br><input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)<br><input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Thin Muck Surface (C7)<br><input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Other (Explain in Remarks)<br><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> Water-Stained Leaves (B9) |                                                                                    | <b>Secondary Indicators (minimum of two required)</b><br><input type="checkbox"/> Surface Soil Cracks (B6)<br><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Moss Trim Lines (B16)<br><input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Crayfish Burrows (C8)<br><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> FAC-Neutral Test (D5)<br><input type="checkbox"/> Sphagnum moss (D8) (LRR T, U) |
| <b>Field Observations:</b><br>Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____<br>Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____<br>(includes capillary fringe)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/></b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:<br>- Extrapolated data from aerial photographs & LIDAR data were consistent with non-wetland characteristics.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Remarks:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: **DP-3**

| Tree Stratum (Plot size: 30') | Absolute % Cover | Dominant Species? | Indicator Status |
|-------------------------------|------------------|-------------------|------------------|
| 1. <u>Pinus taeda</u>         | 50               | yes               | FAC              |
| 2. <u>Prunus serotina</u>     | 15               | yes               | FACU             |
| 3. <u>Ulmus alata</u>         | 10               | no                | FACU             |
| 4. _____                      | _____            | _____             | _____            |
| 5. _____                      | _____            | _____             | _____            |
| 6. _____                      | _____            | _____             | _____            |

75 = Total Cover

50% of total cover: 37.5 20% of total cover: 15

| Sapling Stratum (Plot size: 30')  | Absolute % Cover | Dominant Species? | Indicator Status |
|-----------------------------------|------------------|-------------------|------------------|
| 1. <u>Liquidambar styraciflua</u> | 15               | yes               | FAC              |
| 2. <u>Ulmus alata</u>             | 10               | yes               | FACU             |
| 3. <u>Quercus nigra</u>           | 10               | no                | FAC              |
| 4. <u>Prunus serotina</u>         | 7.5              | no                | FACU             |
| 5. <u>Diospyros virginiana</u>    | 5                | no                | FAC              |
| 6. _____                          | _____            | _____             | _____            |

47.5 = Total Cover

50% of total cover: 23.75 20% of total cover: 9.5

| Shrub Stratum (Plot size: 30') | Absolute % Cover | Dominant Species? | Indicator Status |
|--------------------------------|------------------|-------------------|------------------|
| 1. <u>Liquidambar sinense</u>  | 25               | yes               | FAC              |
| 2. <u>Ilex vomitoria</u>       | 15               | yes               | FAC              |
| 3. <u>Callicarpa americana</u> | 10               | yes               | FACU             |
| 4. _____                       | _____            | _____             | _____            |
| 5. _____                       | _____            | _____             | _____            |
| 6. _____                       | _____            | _____             | _____            |

50 = Total Cover

50% of total cover: 25 20% of total cover: 10

| Herb Stratum (Plot size: 30')    | Absolute % Cover | Dominant Species? | Indicator Status |
|----------------------------------|------------------|-------------------|------------------|
| 1. <u>Toxicodendron radicans</u> | 20               | yes               | FAC              |
| 2. <u>Lonicera japonica</u>      | 10               | yes               | FAC              |
| 3. <u>Lysododium japonicum</u>   | 2.5              | no                | FAC              |
| 4. _____                         | _____            | _____             | _____            |
| 5. _____                         | _____            | _____             | _____            |
| 6. _____                         | _____            | _____             | _____            |
| 7. _____                         | _____            | _____             | _____            |
| 8. _____                         | _____            | _____             | _____            |
| 9. _____                         | _____            | _____             | _____            |
| 10. _____                        | _____            | _____             | _____            |
| 11. _____                        | _____            | _____             | _____            |

32.5 = Total Cover

50% of total cover: 16.25 20% of total cover: 6.5

| Woody Vine Stratum (Plot size: 30') | Absolute % Cover | Dominant Species? | Indicator Status |
|-------------------------------------|------------------|-------------------|------------------|
| 1. <u>Toxicodendron radicans</u>    | 2.5              | yes               | FAC              |
| 2. <u>Campsis radicans</u>          | 2.5              | yes               | FAC              |
| 3. <u>Vitis rotundifolia</u>        | 2.5              | yes               | FAC              |
| 4. <u>Smilax bona-nox</u>           | 2.5              | yes               | FAC              |
| 5. _____                            | _____            | _____             | _____            |

10 = Total Cover

50% of total cover: 5 20% of total cover: 2

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 10 (A)

Total Number of Dominant Species Across All Strata: 13 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 76.92% (A/B)

**Prevalence Index worksheet:**

| Total % Cover of:    | Multiply by: |
|----------------------|--------------|
| OBL species _____    | x 1 = 0      |
| FACW species _____   | x 2 = 0      |
| FAC species _____    | x 3 = 0      |
| FACU species _____   | x 4 = 0      |
| UPL species _____    | x 5 = 0      |
| Column Totals: 0 (A) | 0 (B)        |

Prevalence Index = B/A =

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation  
☐ 2 - Dominance Test is >50%  
☐ 3 - Prevalence Index is  $\leq 3.0^1$   
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Five Vegetation Strata:**

**Tree** – 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).

**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

**Woody vine** – All woody vines, regardless of height.

Hydrophytic Vegetation Present?

 Yes ☒ No ☐

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

- Although hydrophytic vegetation is prevalent, the overall species composition is skewed toward upland, and the other two criteria are not met to classify this area as a jurisdictional wetland (See "Site Photographs").

## SOIL

Sampling Point: DP-3

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

| Depth<br>(inches) | Matrix        |     | Redox Features |     |                   |                  | Texture   | Remarks                     |
|-------------------|---------------|-----|----------------|-----|-------------------|------------------|-----------|-----------------------------|
|                   | Color (moist) | %   | Color (moist)  | %   | Type <sup>1</sup> | Loc <sup>2</sup> |           |                             |
| 0-12              | 10yr 6/4      | 100 | N/A            | N/A |                   |                  | silt loam | indicative of the Sa series |
|                   |               |     |                |     |                   |                  |           |                             |
|                   |               |     |                |     |                   |                  |           |                             |
|                   |               |     |                |     |                   |                  |           |                             |
|                   |               |     |                |     |                   |                  |           |                             |
|                   |               |     |                |     |                   |                  |           |                             |
|                   |               |     |                |     |                   |                  |           |                             |
|                   |               |     |                |     |                   |                  |           |                             |
|                   |               |     |                |     |                   |                  |           |                             |
|                   |               |     |                |     |                   |                  |           |                             |

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

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)                        |
| <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)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <input type="checkbox"/> (MLRA 153B)                                   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)                                         | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <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, unless disturbed or problematic.

Restrictive Layer (if observed):

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

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

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

Remarks:

- Soil sample is indicative of the Satsuma series.
- See "Site Photographs" to obtain visual confirmation.

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

Project/Site: Miller Southeast Range Property City/County: Livingston Parish Sampling Date: 4-15-16  
 Applicant/Owner: Miller Southeast Range, Ltd. State: LA Sampling Point: DP-4  
 Investigator(s): DSES (David C. Templet, Jr.) Section, Township, Range: Section 7, Township 7 South, Range 3 East  
 Landform (hillslope, terrace, etc.): level to depressed topo. Local relief (concave, convex, none): concave Slope (%): 0 to 1  
 Subregion (LRR or MLRA): LRR=P & MLRA=134 Lat: 30°26'55.47"N Long: 90°57'11.21"W Datum: NAD 83  
 Soil Map Unit Name: Ge: Gilbert-Brimstone silt loams, occasionally flooded NWI classification: -Non-listed

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 <input type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>            |                                                                                                           |
| Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>      |                                                                                                           |

Remarks:

- Data Plot is located in a poorly drained forested depression (see Site Photographs).

## HYDROLOGY

| Wetland Hydrology Indicators:                                         |                                                                                   | Secondary Indicators (minimum of two required)                                |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| Primary Indicators (minimum of one is required; check all that apply) |                                                                                   |                                                                               |
| <input type="checkbox"/> Surface Water (A1)                           | <input type="checkbox"/> Aquatic Fauna (B13)                                      | <input type="checkbox"/> Surface Soil Cracks (B6)                             |
| <input checked="" type="checkbox"/> High Water Table (A2)             | <input type="checkbox"/> Marl Deposits (B15) (LRR U)                              | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)              |
| <input checked="" type="checkbox"/> Saturation (A3)                   | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                               | <input type="checkbox"/> Drainage Patterns (B10)                              |
| <input checked="" type="checkbox"/> Water Marks (B1)                  | <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Moss Trim Lines (B16)                                |
| <input checked="" type="checkbox"/> Sediment Deposits (B2)            | <input type="checkbox"/> Presence of Reduced Iron (C4)                            | <input type="checkbox"/> Dry-Season Water Table (C2)                          |
| <input checked="" type="checkbox"/> Drift Deposits (B3)               | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)               | <input checked="" type="checkbox"/> Crayfish Burrows (C8)                     |
| <input type="checkbox"/> Algal Mat or Crust (B4)                      | <input type="checkbox"/> Thin Muck Surface (C7)                                   | <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Iron Deposits (B5)                           | <input type="checkbox"/> Other (Explain in Remarks)                               | <input type="checkbox"/> Geomorphic Position (D2)                             |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)    |                                                                                   | <input type="checkbox"/> Shallow Aquitard (D3)                                |
| <input checked="" type="checkbox"/> Water-Stained Leaves (B9)         |                                                                                   | <input checked="" type="checkbox"/> FAC-Neutral Test (D5)                     |
|                                                                       |                                                                                   | <input checked="" type="checkbox"/> Sphagnum moss (D8) (LRR T, U)             |

### Field Observations:

|                                                                                            |                                 |
|--------------------------------------------------------------------------------------------|---------------------------------|
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Depth (inches): <u>*Remarks</u> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>   | Depth (inches): <u>surface</u>  |
| Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>    | Depth (inches): <u>surface</u>  |

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

- Extrapolated information from aerial photographs and LIDAR data are consistent with wetland characteristics.

Remarks:

\* Although by definition the "surface water" criteria was not met, there are sporadic pockets of surface water throughout, as well as a high water table, saturation, oxidized rhizospheres along living roots, positive FAC-Neutral Test (dominance of hydrophytic vegetation), etc. that attest to the areas frequently flooded nature or ultimate site wetness.

- Worthy of mention, this area drains into Miller's Canal along the south and east boundaries, which flows into Grays Creek further downstream, thence into Grays Creek Lake and finally empties into the Amite River in the lower reaches of the parish (Port Vincent).

**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: **DP-4**

| Tree Stratum (Plot size: 30')    |                  |                   |                  |
|----------------------------------|------------------|-------------------|------------------|
|                                  | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. <u>Acer rubrum</u>            | 15               | yes               | FAC              |
| 2. <u>Quercus nigra</u>          | 10               | yes               | FAC              |
| 3. <u>Fraxinus pennsylvanica</u> | 7.5              | no                | FACW             |
| 4. <u>Ulmus americana</u>        | 7.5              | no                | FACW             |
| 5. _____                         | _____            | _____             | _____            |
| 6. _____                         | _____            | _____             | _____            |

40 = Total Cover

50% of total cover: 20 20% of total cover: 8

| Sapling Stratum (Plot size: 30') |                  |                   |                  |
|----------------------------------|------------------|-------------------|------------------|
|                                  | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. <u>Acer rubrum</u>            | 10               | yes               | FAC              |
| 2. <u>Triadica sebifera</u>      | 7.5              | yes               | FAC              |
| 3. <u>Quercus nigra</u>          | 7.5              | yes               | FACU             |
| 4. <u>Fraxinus pennsylvanica</u> | 5                | no                | _____            |
| 5. _____                         | _____            | _____             | _____            |
| 6. _____                         | _____            | _____             | _____            |

30 = Total Cover

50% of total cover: 15 20% of total cover: 6

| Shrub Stratum (Plot size: 30') |                  |                   |                  |
|--------------------------------|------------------|-------------------|------------------|
|                                | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. <u>Ilex decidua</u>         | 10               | yes               | FACW             |
| 2. <u>Crataegus opaca</u>      | 5                | yes               | OBL              |
| 3. _____                       | _____            | _____             | _____            |
| 4. _____                       | _____            | _____             | _____            |
| 5. _____                       | _____            | _____             | _____            |
| 6. _____                       | _____            | _____             | _____            |

15 = Total Cover

50% of total cover: 7.5 20% of total cover: 3

| Herb Stratum (Plot size: 30') |                  |                   |                  |
|-------------------------------|------------------|-------------------|------------------|
|                               | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. <u>Sabal minor</u>         | 35               | yes               | FACW             |
| 2. <u>Carex bromoides</u>     | 15               | yes               | FACW             |
| 3. _____                      | _____            | _____             | _____            |
| 4. _____                      | _____            | _____             | _____            |
| 5. _____                      | _____            | _____             | _____            |
| 6. _____                      | _____            | _____             | _____            |
| 7. _____                      | _____            | _____             | _____            |
| 8. _____                      | _____            | _____             | _____            |
| 9. _____                      | _____            | _____             | _____            |
| 10. _____                     | _____            | _____             | _____            |
| 11. _____                     | _____            | _____             | _____            |

50 = Total Cover

50% of total cover: 25 20% of total cover: 10

| Woody Vine Stratum (Plot size: 30') |                  |                   |                  |
|-------------------------------------|------------------|-------------------|------------------|
|                                     | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. <u>Toxicodendron radicans</u>    | 2.5              | yes               | FAC              |
| 2. <u>Campsis radicans</u>          | 2.5              | yes               | FAC              |
| 3. <u>Smilax rotundifolia</u>       | 2.5              | yes               | FAC              |
| 4. _____                            | _____            | _____             | _____            |
| 5. _____                            | _____            | _____             | _____            |

7.5 = Total Cover

50% of total cover: 3.75 20% of total cover: 1.5

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 12 (A)

Total Number of Dominant Species Across All Strata: 12 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

| Total % Cover of:    | Multiply by: |
|----------------------|--------------|
| OBL species _____    | x 1 = 0      |
| FACW species _____   | x 2 = 0      |
| FAC species _____    | x 3 = 0      |
| FACU species _____   | x 4 = 0      |
| UPL species _____    | x 5 = 0      |
| Column Totals: 0 (A) | 0 (B)        |

Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation  
☐ 2 - Dominance Test is >50%  
☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Five Vegetation Strata:**

**Tree** – 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).

**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

**Woody vine** – All woody vines, regardless of height.

Hydrophytic Vegetation Present?

 Yes ☒ No \_\_\_\_\_

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

- See "Site Photographs" to obtain visual confirmation.

## SOIL

Sampling Point: DP-4

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

| Depth<br>(inches) | Matrix        |    | Redox Features |    |                   | Loc <sup>2</sup> | Texture   | Remarks                     |
|-------------------|---------------|----|----------------|----|-------------------|------------------|-----------|-----------------------------|
|                   | Color (moist) | %  | Color (moist)  | %  | Type <sup>1</sup> |                  |           |                             |
| 0-12              | 10yr 6/1      | 90 | 10yr 5/6       | 10 | C                 | M                | silt loam | indicative of the Ge series |
|                   |               |    |                |    |                   |                  |           |                             |
|                   |               |    |                |    |                   |                  |           |                             |
|                   |               |    |                |    |                   |                  |           |                             |
|                   |               |    |                |    |                   |                  |           |                             |
|                   |               |    |                |    |                   |                  |           |                             |
|                   |               |    |                |    |                   |                  |           |                             |
|                   |               |    |                |    |                   |                  |           |                             |
|                   |               |    |                |    |                   |                  |           |                             |
|                   |               |    |                |    |                   |                  |           |                             |

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

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)                        |
| <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 checked="" type="checkbox"/> Depleted Matrix (F3)                            | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <input type="checkbox"/> (MLRA 153B)                                   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)                                         | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <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, unless disturbed or problematic.

Restrictive Layer (if observed):

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

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

Hydric Soil Present? Yes ☒ No ☐

Remarks:

- Soil sample is indicative of the Gilbert-Brimstone series.
- See "Site Photographs" to obtain visual confirmation.

**APPENDIX II**

**SITE PHOTOGRAPHS**





Vegetation indicative of Data Plot-1 (non-wetland).



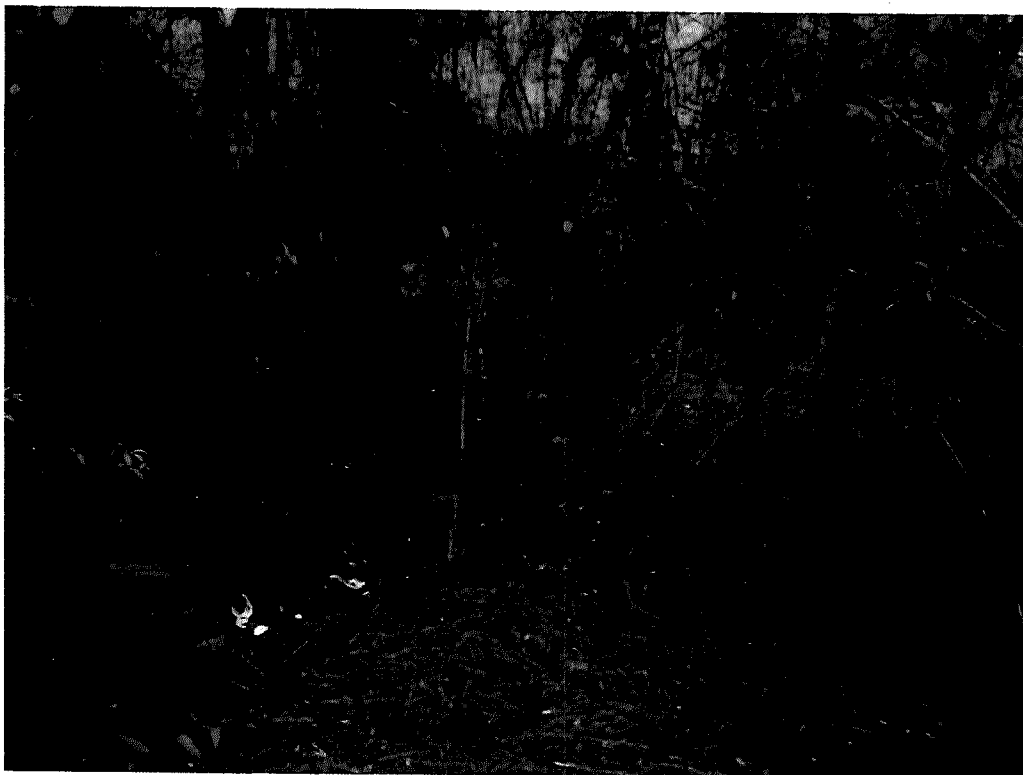
Non-hydric soil indicative of the Satsuma series found within Data Plot-1.



Vegetation indicative of Data Plot-2 (jurisdictional wetland).



Hydric soil indicative of the Gilbert-Brimstone series found within Data Plot-2.



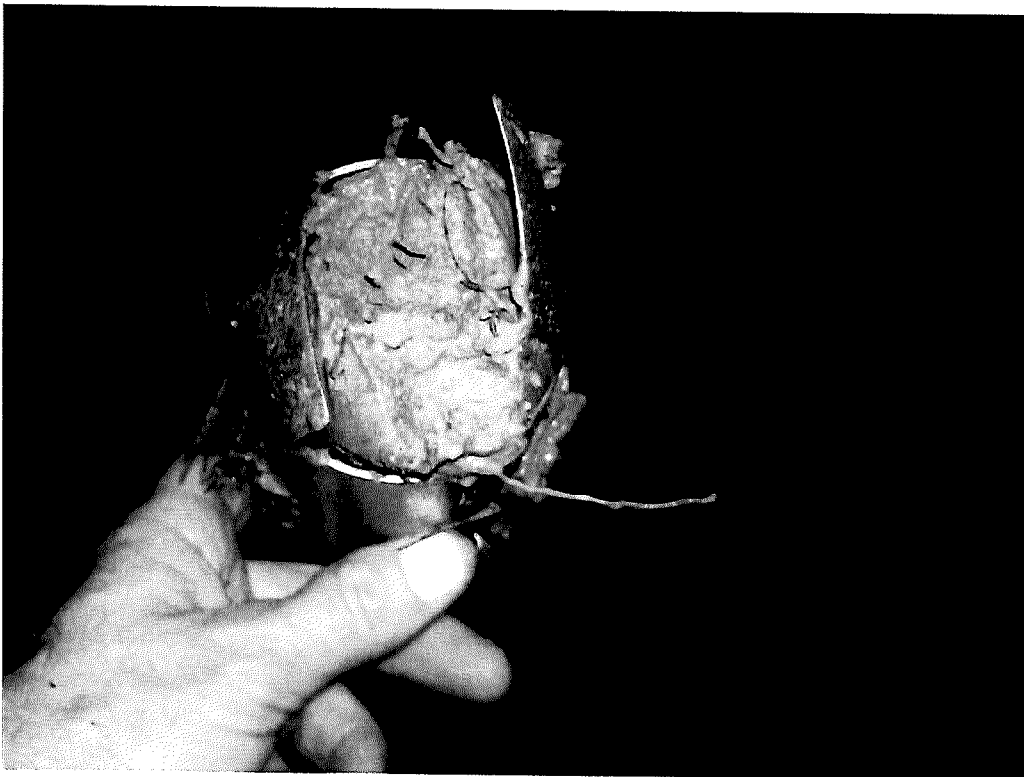
Vegetation indicative of Data Plot-3 (non-wetland).



Non-hydric soil indicative of the Satsuma series found within Data Plot-3.



Vegetation indicative of Data Plot-4 (jurisdictional wetland).



Hydric soil indicative of the Gilbert-Brimstone series found within Data Plot-4.



"Other Waters of the United States" (Section 404) found along the southern boundary (Miller's Canal tributary).



"Other Waters of the United States" (Section 404) found along the eastern boundary (Miller's Canal tributary).