

May 31, 2022

Tennessee Department of Environment and Conservation Division of Water Resources – Nashville Environmental Field Office 711 E.S. Gass Boulevard Nashville, Tennessee 37216

Attention: Virginia Lawrence

Subject:HD ID No. 31105 – Response to Informal Request for Additional Information
Bellamy Property
Clarksville, Montgomery County, Tennessee
Latitude 36.609700° North and Longitude -87.242000° West
Project No. 3619-001-30

Via email to: <u>Virginia.Lawrence@tn.gov</u>

Virginia,

Spectrum Environmental, Inc. (Spectrum) appreciates the opportunity to provide this correspondence. This information is provided in response to an email received from the Tennessee Department of Environment and Conservation (TDEC) on May 6, 2022. In this email, TDEC requested additional information pertaining to the Hydrologic Determination performed by Spectrum at the Bellamy Property in Clarksville, Montgomery County, Tennessee. Additional information requested included:

- Datasheets for the mapped but unassessed upland drainage features (UDFs);
- Additional information of a potential wetland associated with the upper portion of Wet Weather Conveyance 3 (WWC3); and
- Documentation demonstrating a lack of groundwater connection for Pond 2.

On May 13, 17, and 20, 2022, Spectrum personnel (Marian Rubin and Kari Kennel) reevaluated the site and collected data pertaining to the information requested. Photographs of these site evaluations are included in Appendix A. According to data obtained from Weather Underground, the closest weather station (KTNCLARK47) indicated that the site received the following precipitation prior to the site visits:

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Corporate Office Alabaster, AL (205) 664-2000 Mid-South Office Nashville, TN (615) 469-4941 <u>Gulf Coast Office</u> Baldwin County, AL (251) 923-4352

| Date | Precipitation 2-days Prior | Precipitation 7-days Prior |
|--------------|----------------------------|----------------------------|
| May 13, 2022 | 0.0" | 0.02" |
| May 17, 2022 | 0.08" | 0.42" |
| May 20, 2022 | 0.0" | 0.42" |

Using the TDEC – Department of Water Resources (DWR) HD Guidance Version 1.5 (April 2020), calculated Weather Conditions indicate that the prior period has been normal. A copy of the Normal Weather Conditions calculation is included in Appendix B.

The following was determined based on observations made in the field:

- Data was collected on Upland Drainage feature 1 (UDF1), UDF3, and UDF4. Hydrologic Determination Field Data Sheets are included in Appendix C.
- Data was collected from five additional upland points and three wetland points. These Wetland Determination Data Forms are included in Appendix D. Based on the hydric soils, hydrophytic vegetation, and hydrology indicators the boundary of Wetland D (Wet D) was extended in a linear manner along points D4, D5, and D6. This increased the size of Wet D by an additional 0.08 acres (Figure 1). Furthermore, additional data points (Up J, Up K, Up M, Up N, and Up O) suggest the linear wetland is confined to this area prior to the transition to WWC3.
- Pond 2 is an artificial pond excavated in the upland within the southwestern portion of the Survey Area. This pond measures approximately 0.18 acres and receives runoff from the adjacent upland to the north. During the 2021 site visits (September 13, November 8, and November 15, 2021), water was observed within the confines of the pond. However, it was noted the pond lacked connection to natural surface water features. A follow-up site visit on May 17, 2022, was conducted to determine if artificial Pond 2 had direct connectivity with groundwater. To aid in determining this, three (3) soil borings were advanced to depths of at least 30" below surface in areas adjacent to Pond 2 (Figure 2).
 - o Boring 1 (B1) located immediately northeast of Pond 2, downgradient
 - o Boring 2 (B2) located immediately northwest of Pond 2, crossgradient
 - o Boring 3 (B3) located immediately southeast of Pond 2, upgradient

Groundwater was not encountered during the advancement of these borings. After a half hour, the borings were reevaluated. Groundwater was not observed in B1 or B2. Groundwater had infiltrated into B3 at 26" below the soil surface.

Additionally, vegetation data was collected along the eastern edge of Pond 2:

- Hairy buttercup (*Ranunculus sardous*) FAC
- o Caley pea (Lathyrus hirsutus) FAC
- o Curly dock (Rumex crispus) FAC
- o Blue field-madder (Sherardia arvensis) UPL
- o Meadow barley (Hordeum brachyantherum) FAC
- o Cleavers (Galium aparine) FACU
- Devil's beggarticks (*Bidens frondose*) FACW
- o Blunt Spikerush (Eleocharis obtusa) OBL
- Carolina geranium (Geranium carolinianum) UPL
- o Frostweed (Verbesina virginica) UPL
- Horseweed (*Erigeron canadensis*) FACU
- o Perennial ryegrass (Lolium perenne) FACU
- Common vetch (Vicia sativa) FACU

Utilizing the dominance test, 46.2% of the vegetative species identified are classified as OBL, FACW, or FAC and therefore would not collectively be considered hydrophytic vegetation.

This data supports the determination that Pond 2 is an artificial pond lacking connectivity to groundwater. Further, Pond 2 was observed to only capture non-point source surface water runoff from the adjacent upland. Although SB3 exhibited moisture in the basal portion of the boring, we do not believe this is reflective perched groundwater and depicts localized dewatering of pore spaces in the shallow sub-surface.

Based on observations made in the field, updated delineation maps are provided as Figures 3a - 3d. Additionally, the updated Delineation Summary Table is included below:

| Site ID | Start Lat/Long | End Lat/Long | Total Mapped | | Average Width at | Type of aquatic | Jurisdictional |
|---------|-------------------|-----------------|--------------|-------|------------------------|--------------------|----------------|
| Site ID | | | LF | Acres | OHWM (ft) | resource | Authority |
| WWC1 | 36.608101, | 36.608157, | 64 | 0.003 | 2 | WWC | N/A |
| wwc1 | -87.243955 | -87.244138 | 04 | | | | 11/71 |
| WWC2 | 36.608291, | 36.608213, | 12 | 0.002 | 2 | WWC | N/A |
| | -87.244641 | -87.244746 | 42 | | | ** ***C | 11/17 |
| WWC3 | 36.607174, | 36.615177, | 4 302 | 0.37 | 3.75 | WWC | N/A |
| | -87.239405 | -87.240736 | 4,302 | | | W WC | |
| WWC4 | 36.615342, | 36.615269, | 105 | 0.01 | 3 | WWC | N/A |
| | -87.241027 | -87.24133 | 105 | | | W WC | |
| WWC5 | 36.614951, | 36.61527, | 205* | 0.01 | 2 | WWC | NT/A |
| | -87.24202 | -87.241329 | 283* | | | ww.c | IN/A |
| WWC6 | 36.610847, | 36.61527, | 104 | 0.005 | 2 | WWC | NI/A |
| | -87.23905 | -87.241329 | 104 | | | wwc | IN/A |

| 6:40 ID | Start | End Lat/Lang | Total Mapped | | Average Width at | Type of aquatic | Jurisdictional | |
|---------|--------------------------|---|--------------|---------|------------------------|----------------------------------|----------------|--|
| Site ID | Lat/Long | Lat/Long | LF | Acres | OHWM (ft) | resource | Authority | |
| WWC7 | 36.611000, -87.238549 | 36.611055, -87.237833 | 217 | 0.01 | 2.5 | WWC | N/A | |
| UDF1 | 36.608062, -87.243809 | 36.608084, -87.243887 | 45** | - | - | UDF | N/A | |
| UDF2 | 36.605841, -87.243684 | 5841, 36.607436, 3684 -87.243994 | | - | - | UDF | N/A | |
| UDF3 | 36.610898, -87.239213 | 36.610898, 36.611002, -87.239213 -87.23942 | | - | - | UDF | N/A | |
| UDF4 | 36.611189, -87.239922 | 36.611548, -87.240527 | 247 | - | - | UDF | N/A | |
| Wet A | 36.608319, -87.244493 | - | - | 0.003 | - | Linear Wetland | TDEC | |
| Wet B | 36.605068, -87.24301 | - | - | 1.1 | - | Fringe Wetland | TDEC | |
| Wet C | 36.610939, -87.238732 | - | - | 0.17 | - | Forested Wetland | TDEC | |
| Wet D | 36.608188, -87.236491 | - | - | 6.92*** | - | Emergent/ Forested Wetland | TDEC | |
| Pond 1 | 36.608184, -87.244351 | - | - | 0.18 | - | Open Water Pond | TDEC | |
| Pond 2 | 36.607258, -87.242035 | - | - | 0.18 | - | Open Water Pond | N/A | |
| Pond 3 | 36.605454, -87.24337 | - | - | 0.70 | - | Open Water Pond | TDEC | |
| Pond 4 | 36.607893, -87.237689 | - | - | 0.13 | - | Open Water Pond | TDEC | |

*This length includes 50 LF of a previously piped section of WWC5

**This length includes 20 LF of a previously piped section of UDF1

***Previously delineated as 6.84 acres; Wet D is the only feature that has been modified

Conclusion

Based on observations made in the field during our re-evaluation, Spectrum has determined the following and request TDEC concur with these findings:

- 1. UDF1, UDF 3, and UDF4 are upland drainage features that scored as wet weather conveyances utilizing the HD Data Sheets;
- 2. A feature previously classified as a WWC has been recharacterized as a linear wetland based on the hydric soils, hydrophytic vegetation, and hydrology indicators observed in association with wetland data points Wet D4, Wet D5, and Wet D6. Wetland D (Wet D) was extended as a linear wetland for 0.08 acres along the channel of WWC3; and

3. Pond 2 is an artificial pond lacking connectivity to groundwater based on the data collected from three soil borings advanced around the perimeter of the pond. Further, Pond 2 was observed to only capture non-point source surface water runoff from the adjacent upland. We believe there is sufficient data that supports a non-jurisdictional determination for Pond 2, and therefore request TDEC concur with these findings.

We appreciate your consideration of this submittal and thank you for your assistance through this process. If you have any questions or need additional information, please feel free to contact Kari Kennel at (901)-831-3565 (kkennel@specenviro.com) or Marian Rubin at (615)-613-2066 (mrubin@specenviro.com).

Sincerely, SPECTRUM ENVIRONMENTAL, INC.

Kari A. Kennel, QHP-IT Staff Scientist

Enclosure – Figures and Appendices

Marian R. Rubin, QHP-IT

Nashville Division Manager Natural Resource Biologist

FIGURES









Clarksville, Montgomery County, Tennessee

SPECTRUM

Project Mgr.

MR

ΒY

DATE

NO.

REVISION NOTE

Project #:

3619-001-30



| | - | - | | | | ř | | |
|-----|------|---------------|----|---------------|-------------|--|--------------------------------------|---|
| | | | | Drawn By: | Client #: | 901 Woodland Street 85 Suite 104 Alat | 5 Spectrum Cove | TITLE |
| | | | | KK | 3619 | Nashville, TN 37206 P - 615-469-4941 | D - 205-664-2000 F - 205-664-2142 | Figure 3c — Site Delineation Overview |
| | | | | Checked By: | Date: | | | Hydrologic Determination Provident Realty Advisors |
| | | | | MR | 5/23/2022 | | | Bellamy Property |
| | | | | Project Mgr.: | Project #: | SPECTRU | JM | Clarksville, Montgomery County, Tennessee |
| NO. | DATE | REVISION NOTE | BY | MR | 3619-001-30 | Solutions to Your Environmental C | Challenges | |

| Site ID | Start/Mid Lat, Long (Decimal Degrees) | | End Lat, Long (Decimal Degrees) | | Total Mapped | | Average Width at | Туре |
|--|--|---------------------|------------------------------------|------------|--------------|-------|---------------------|------------------------------|
| | Latitude | Longitude | Latitude | Longitude | LF | Acre | OHWW | |
| WWC1 | 36.608101 | -87.243955 | 36.608157 | -87.244138 | 64 | 0.003 | 2 | Wet Weather Conveyance |
| WWC2 | 36.608291 | -87.244641 | 36.608213 | -87.244746 | 42 | 0.002 | 2 | Wet Weather Conveyance |
| WWC3 | 36.607174 | -87.237272 | 36.615177 | -87.240736 | 4,302 | 0.37 | 3.75 | Wet Weather Conveyance |
| WWC4 | 36.615342 | -87.241027 | 36.615269 | -87.24133 | 105 | 0.01 | 3 | Wet Weather Conveyance |
| WWC5 | 36.614951 | -87.24202 | 36.61527 | -87.241329 | 285* | 0.01 | 2 | Wet Weather Conveyance |
| WWC6 | 36.610847 | -87.238903 | 36.610899 | -87.239216 | 104 | 0.005 | 2 | Wet Weather Conveyance |
| WWC7 | 36.611000 | -87.238549 | 36.611055 | -87.237833 | 217 | 0.01 | 2.5 | Wet Weather Conveyance |
| UDF1 | 36.608062 | -87.243809 | 36.608084 | -87.243887 | 45** | - | - | Upland Drainage Feature |
| UDF2 | 36.605841 | -87.243684 | 36.607436 | -87.243994 | 617 | - | - | Upland Drainage Feature |
| UDF3 | 36.610898 | -87.239213 | 36.611002 | -87.23942 | 72 | - | - | Upland Drainage Feature |
| UDF4 | 36.611189 | -87.239922 | 36.611548 | -87.240527 | 247 | - | - | Upland Drainage Feature |
| Pond 1 | 36.608184 | -87.244351 | - | - | - | 0.18 | - | Open Water Pond |
| Pond 2 | 36.607258 | -87.242035 | - | - | - | 0.18 | - | Open Water Pond |
| Pond 3 | 36.605454 | -87.24337 | - | - | - | 0.70 | - | Open Water Pond |
| Pond 4 | 36.607893 | -87.237689 | - | - | - | 0.13 | - | Open Water Pond |
| Wet A | 36.608319 | -87.244493 | - | - | - | 0.003 | - | Linear Wetland |
| Wet B | 36.605068 | -87.24301 | - | - | - | 1.1 | - | Fringe Wetland |
| Wet C | 36.610939 | -87.238732 | - | - | - | 0.17 | - | Forested Wetland |
| Wet D | 36.608188 | -87.236491 | - | - | - | 6.92 | - | Emergent/Forested Wetland |
| *Includes 50 LF of a previously piped section of WWC5 | | | | | | | | |
| **Includes 20 LF of a previously piped section of UDF1 | | | | | | | | |
| | | Drawn By: Client #: | 901 Woodland Street | 85 Sp | ectrum Cove | | | ITI F |

Figure 3d — Site Delineation Table Hydrologic Determination Provident Realty Advisors Bellamy Property Clarksville, Montgomery County, Tennessee

901 Woodland Street Suite 104 Nashville, TN 37206 P - 615-469-4941 SPECTRUM SPECTRUM Solutions to Your Environmental Challenges

KK

Checked By:

MR

Project Mgr.

MR

ΒY

NO.

DATE

REVISION NOTE

3619

5/23/2022

3619-001-30

Project #:

Date:

APPENDIX A

Site Reconnaissance Photographs

Photo Index Map



UDF1 facing downstream towards culvert



UDF1 facing upstream



UDF4 facing downstream towards WW3 at top of feature



UDF4 facing downstream towards WW3 at bottom of feature



UDF3 facing downstream towards WWC6



UDF3 facing upstream



Up J soils



Up J soils



Area around Up J soil pit facing northwest



Area around Up J soil pit facing southeast



Up K soils



Up K soils



Area around Up K soil pit facing southeast



Area around Up K soil pit facing northwest



WW3 facing upstream — Area in between Up K and Wet D4 soil pits



Wet D4 soils



Wet D4 soils



Area around Wet D4 soil pit facing northwest



Area around Wet D4 soil pit facing southeast



Wet D5 soils



Wet D5 soils



Area around Wet D5 soil pit facing southeast



Area around Wet D5 soil pit facing northwest



Wet D6 soils



Wet D6 soils



Area around Wet D6 soil pit facing southeast



Area around Wet D6 soil pit facing southwest



Crayfish burrow near Wet D6



Up L soils



Up L soils



Area around Up L soil pit facing southeast



Up M soils



Up M soils



Area around Up M soil pit facing southeast



Area around Up M soil pit facing northwest



Up N soils



Up N soils



Area around Up M soil pit facing northeast



Area around Up M soil pit facing southeast



Up O soils



Up O soils



Area around Up O soil pit facing northeast



Area around Up O soil pit facing southwest



Soils from Boring 1 (B1) located immediately northeast of Pond 2


B1 located immediately northeast of Pond 2



B1 located immediately northeast of Pond 2 facing north



Soils from Boring 2 (B2) located immediately northwest of Pond 2



B2 located immediately northwest of Pond 2



B2 located immediately northwest of Pond 2 facing southeast



Soils from Boring 3 (B3) located immediately southeast of Pond 2



B3 located immediately southeast of Pond 2



B3 located immediately southeast of Pond 2 facing northwest

APPENDIX B

Calculation of Normal Weather Conditions

| | _ | | Long-te | rm Rainfall | Records | | | | | |
|-----------------|--------|-----------|-----------|-------------|-----------|-----------|-----------|-----------|--------|---------------|
| | | | | | | | | | | Product of |
| | | | Minus | Normal | Plus One | | | | Month | Previous |
| | | | one Std. | (Mean | Std. Dev. | Actual | | Condition | Weight | two |
| | Month | Std. Dev. | Dev (DRY) | Inches) | (WET) | Rainfall* | Condition | Value | Value | columns |
| 1st month prior | Apr-22 | 1.9 | 2.27 | 4.17 | 6.07 | 4.8 | Normal | 2 | | 8 6 |
| 2nd Month prior | Mar-22 | 2.62 | 2.46 | 5.08 | 7.7 | 3.7 | Normal | 2 | 1 | 2 4 |
| 3rd month prior | Feb-22 | 2.27 | 1.95 | 4.22 | 6.49 | 5.99 | Normal | 2 | í. | 1 2 |
| | | | - | | | | | | Sum | 12 |

Table 1. Calculation of Normal Weather Conditions / Bellamy Property -Clarksville, TN - May 2022

| If sum is: | |
|------------|---|
| 6 | 9 then prior period has been drier than normal |
| 10-1 | 4 then prior period has been normal |
| 15-1 | 8 then prior period has been wetter than normal |

| Condition Value | |
|-----------------|---|
| Dry = | 1 |
| Normal = | 2 |
| Wet= | 3 |

Conclusions: Actual rainfall obtained from weather underground station KTNLARK47 (Terraces of Hearthstone)

Monthly percipitation standard deviation and mean sourced from NOAA PSL - Clarksville (1991-2020)

Date of field work 5/13/2022

Note:

Weather conditions prior to this period have been normal.

APPENDIX C

Tennessee Department of Environment and Conservation Hydrologic Determination Field Data Sheets

Hydrologic Determination Field Data Sheet

| Tennessee Division of Water Pollution Control, | Version 1.5 5/13/22 | |
|---|--|--|
| Named Waterbody: UDE | Date/Time: 9: 30am | |
| Assessors/Affiliation Mile Chi (mer) + Ki Kan I (mer) Sundam F | Project ID : | |
| Site Name/Description: Bellam- | 3619-001-80 | |
| Site Location: betwee HWY, Clarksville | | |
| HUC (12 digit): 05/302060603 (Spring Cheek) | Lat: 36, 608115 | |
| Previous Rainfall (7-days) :0.2.2* | Long: - 87. 243021 | |
| Precipitation this Season vs. Normal : abnormally wet elevated average Source of recent & seasonal precipidata : KTNCLav K 47 / NOAA |) low abnormally dry unknown | |
| Watershed Size : N = 30 acres (stream stats) County: Montgomery | | |
| Soil Type(s) / Geology: Guthrie Silt bam/ St. Geneviere Linestone | Source: Wss/4565 | |
| Surrounding Land Use: Agriculturali Commercial development to the | he west | |
| Degree of historical alteration to natural channel morphology & hydrology (circ Severe Moderate Slight | cle one & describe fully in Notes) : Absent | |
| Ag land USE | | |

Primary Field Indicators Observed

| Primary Indicators | NO | YES |
|---|----|--------|
| Indiaty indicators | | WWC |
| 1. Hydrologic realure exists solely due to a process disordings | - | WWG |
| 2. Defined bed and bank absent, vegetation composed of upland and r Aco species | | |
| Watercourse dry anytime during February through April 15th, under normal | 20 | WWC |
| precipitation / groundwater conditions | | |
| 4. Daily flow and precipitation records showing feature only flows in direct response | 50 | WWC |
| to rainfall | | |
| Presence of multiple populations of obligate lotic organisms with ≥ 2 month | x | Stream |
| aquatic phase | | |
| 6. Presence of fish (except Gambusia) | K | Stream |
| 7. Presence of naturally occurring ground water table connection | × | Stream |
| 8. Flowing water in channel and 7 days since last precip >0.1" in local watershed | × | Stream |
| 9 Evidence watercourse has been used as a supply of drinking water | × | Stream |

NOTE: If any Primary Indicators 1-9 = "Yes", then no further investigation is necessary. However, assessors may choose to score secondary indicators as supporting evidence.

In the absence of a primary indicator, or other definitive evidence, complete the secondary indicator table on page 2 of this sheet, and provide score below.

Guidance for the interpretation and scoring of both the primary & secondary indicators is provided in TDEC-WPC Guidance For Making Hydrologic Determinations, Version 1.5

| Overall Hydrologic Determination = WWC (upland Drainage fecture) | |
|---|-------------------------|
| Secondary Indicator Score (if applicable) = MA | |
| Justification / Notes: Ver - White clover (trifolium repens) - FACU | Theysprenous rain |
| Horse weed (Frigeron (anadensis) - FACU | 5/13-0" |
| Nodding Thistle (Cardwys nutans) - UPL | 5/12-0" |
| (lender yellow wood sovrel (oxalis dillenii) - FACU | 5/11- 0" |
| Wheat (Trificum astivum) - UPL | \$10- Ø" |
| Annual ragweed (Ambrosia artemisiifolic) - FACU | 5/9-0.05" |
| Annual bluesrass (Poc annua) - FACU | 5/8- 0" |
| end lat /rong; - 30.608136, -87.243897 | 5/7- 0.05" 5/6-0.12" |
| | Total: 0.22" |

Hydrologic Determination Field Data Sheet

| Tennessee Division of Water Pollution Control, V | /ersion 1.5 5/13/22 |
|---|---|
| Named Waterbody: UDF 4 | Date/Time: 10:00am |
| Assessors/Affiliation: Marian Rubin (OHP-IT)+ Kari Kennel (940-IT) Spectro | Project ID : |
| Site Name/Description: Bellany | nmental 3619-001-30 |
| Site Location: Guthric HWT, Clarksville | |
| HUC (12 digit): 05 13 02060603 (Spring Creek) | Lat: 36.611 24 2 |
| Previous Rainfall (7-days) : 0.22" | |
| Precipitation this Season vs. Normal : abnormally wet elevated average Source of recent & seasonal precipidata : KTNCIArK 47 / MoA K | low abnormally dry unknown |
| Watershed Size: N = 40 acres (Stream stats) | County: Montgomery |
| Soil Type(s) / Geology: Lindell silf low m / st. Genevieve Limestone | Source: WSS/USGS |
| Surrounding Land Use : Agricultural | |
| Degree of historical alteration to natural channel morphology & hydrology (circ Severe) Moderate Slight | le one & describe fully in Notes) : Absent |

Primary Field Indicators Observed

| Primary Indicators | | YES |
|---|---|--------|
| 1. Hydrologic feature exists solely due to a process discharge | A | wwc |
| 2. Defined bed and bank absent, vegetation composed of upland and FACU species | | WWG |
| Watercourse dry anytime during February through April 15th, under normal precipitation / groundwater conditions | K | WWC |
| Daily flow and precipitation records showing feature only flows in direct response to rainfall | X | wwc |
| Presence of multiple populations of obligate lotic organisms with ≥ 2 month aquatic phase | X | Stream |
| 6. Presence of fish (except Gambusia) | X | Stream |
| 7. Presence of naturally occurring ground water table connection | X | Stream |
| 8. Flowing water in channel and 7 days since last precip >0.1" in local watershed | × | Stream |
| 9. Evidence watercourse has been used as a supply of drinking water | × | Stream |

NOTE: If any Primary Indicators 1-9 = "Yes", then no further investigation is necessary. However, assessors may choose to score secondary indicators as supporting evidence.

In the absence of a primary indicator, or other definitive evidence, complete the secondary indicator table on page 2 of this sheet, and provide score below.

Guidance for the interpretation and scoring of both the primary & secondary indicators is provided in TDEC-WPC Guidance For Making Hydrologic Determinations, Version 1.5

| Overall Hydrologic Determination = WWC (vpland Drainage feature) |
|--|
| Secondary Indicator Score (if applicable) = $N/4$ |
| Justification / Notes: this feature is an agricultural drainage feature formed |
| In the upland, Confluence w/wwc3. |
| (orn speedwell (veronice arvensis) - UPL |
| Horseweed (Erigeron Canodensis) - FACU |
| annual blue stass (Pon annua) - FACU |
| end 1at/long - 36.611597, -87.240539 |

Hydrologic Determination Field Data Sheet

| Tennessee Division of Water Pollution Control, Versi | on 1.5 5/13/22 |
|---|---------------------------------|
| Named Waterbody: VDF3 | Date/Time: Jo: /Sam |
| Assessors/Affiliation: Marian Rubin (aHP-IX) - Kirkenny (AHPIR) Spectr | um Project ID : |
| Site Name/Description: Bellamy Environme | ental 3619-001-30 |
| Site Location: Granter Hw of Clarksville | |
| HUC (12 digit): 051302060603 (Spring Creek | Lat/Long: 36.611 052 |
| Previous Rainfall (7-days) : 0.22" | -87.239427 |
| Precipitation this Season vs. Normal : abnormally wet elevated average low Source of recent & seasonal precipidata : FTHCLark47/NoAA | abnormally dry unknown |
| Watershed Size: is = 40 acres (Streamstats) Con | unty: Montgomery |
| Soil Type(s) / Geology : Dickson Siltbam / st. Genevieve limestore | Source: Was / WGS |
| Surrounding Land Use : Agriculture | |
| Degree of historical alteration to natural channel morphology & hydrology (circle or Severe Moderate Slight | ne & describe fully in Notes) : |

Primary Field Indicators Observed

| Primary Indicators | NO | YES |
|---|-----|--------|
| 1. Hydrologic feature exists solely due to a process discharge | × | WWC |
| 2. Defined bed and bank absent, vegetation composed of upland and FACU species | | (WWC) |
| Watercourse dry anytime during February through April 15th, under normal precipitation / groundwater conditions | x | WWC |
| Daily flow and precipitation records showing feature only flows in direct response to rainfall | ¥ | WWC |
| Presence of multiple populations of obligate lotic organisms with ≥ 2 month aquatic phase | Y | Stream |
| 6. Presence of fish (except Gambusia) | X | Stream |
| 7. Presence of naturally occurring ground water table connection | X | Stream |
| 8. Flowing water in channel and 7 days since last precip >0.1" in local watershed | × | Stream |
| 9. Evidence watercourse has been used as a supply of drinking water | × . | Stream |

NOTE: If any Primary Indicators 1-9 = "Yes", then no further investigation is necessary. However, assessors may choose to score secondary indicators as supporting evidence.

In the absence of a primary indicator, or other definitive evidence, complete the secondary indicator table on page 2 of this sheet, and provide score below.

Guidance for the interpretation and scoring of both the primary & secondary indicators is provided in TDEC-WPC Guidance For Making Hydrologic Determinations, Version 1.5



APPENDIX D

Wetland Datasheets

| U.S. Army Corps of Engineers |
|--|
| WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region |
| See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R |

| Project/Site: Bellamy Property | | | City/County: Clarksville/Monto | gomery Co | unty San | npling Date: | 5/13/2022 |
|--------------------------------------|-------------------------------------|---------------------------|--------------------------------------|--------------|----------------|-------------------|-----------|
| Applicant/Owner: Provident F | Realty Advisors | | | State: | TN San | npling Point: | Up J |
| Investigator(s): Marian Rubin & K | ari Kennel - Spectrum | Environmental | Section, Township, Range: N/A | | | | |
| Landform (hillside, terrace, etc.): | Floodplain/toeslope | Lc | ocal relief (concave, convex, none): | Linear | | Slope (%): | 0-2 |
| Subregion (LRR or MLRA): LRR | N, MLRA 122 Lat: | 36.609816° | Long: -87.239 | 533° | | Datum: | |
| Soil Map Unit Name: Ld—Lindell | l silt loam, 0 to 2 perce | nt slopes, occa | sionally flooded | NWI cla | ssification: | PFO1A | |
| Are climatic / hydrologic conditions | s on the site typical for | this time of yea | ar? Yes <u>X</u> No |) (| (If no, explai | n in Remark | 3.) |
| Are Vegetation, Soil | , or Hydrology | significantly di | isturbed? Are "Normal Circums | stances" pro | esent? | Yes X | No |
| Are Vegetation, Soil | , or Hydrology | _naturally probl | lematic? (If needed, explain ar | ny answers | in Remarks | s.) | |
| SUMMARY OF FINDINGS | Attach site mag | p showing ຮ | sampling point locations, the | ransects | s, importa | ant featur | es, etc. |
| Hydrophytic Vegetation Present? | Yes | No X | Is the Sampled Area | | | | |
| Hydric Soil Present? | Yes | No X | within a Wetland? | Yes | No | Х | |
| Wetland Hydrology Present? | Yes | No X | | | | | |
| Remarks: | | -11 - 11 - 11 - 11 - 11 - | - | | | d. b da e le eu . | la selata |

This feature is mapped on NWP as PFO1A polygon. Soil pits (Up J, Up F, and Up G) do not meet all three indicators of a wetland: hydrology, hydric soils, and hydrophytic vegetation as provided in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region: (Version 2.0) – November 2010 (USACE 2010).

HYDROLOGY

| welianu nyuruluyy multaturs. | | <u>Se</u> | econdary Indicators (minimum of two required) |
|---|---|---|---|
| Primary Indicators (minimum of one is require | ed; check all that apply) | | _Surface Soil Cracks (B6) |
| Surface Water (A1) | True Aquatic Plants (B14) | | Sparsely Vegetated Concave Surface (B8) |
| High Water Table (A2) | Hydrogen Sulfide Odor (C1) | X | Drainage Patterns (B10) |
| Saturation (A3) | Oxidized Rhizospheres on Living Roc | ots (C3) | Moss Trim Lines (B16) |
| Water Marks (B1) | | Dry-Season Water Table (C2) | |
| Sediment Deposits (B2) | (C6) | Crayfish Burrows (C8) | |
| Drift Deposits (B3) | | Saturation Visible on Aerial Imagery (C9) | |
| Algal Mat or Crust (B4) | Other (Explain in Remarks) | | Stunted or Stressed Plants (D1) |
| Iron Deposits (B5) | | | Geomorphic Position (D2) |
| Inundation Visible on Aerial Imagery (B7) |) | | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) | | | Microtopographic Relief (D4) |
| Aquatic Fauna (B13) | | | FAC-Neutral Test (D5) |
| Field Observations: | | | |
| Surface Water Present? Yes | No X Depth (inches): | | |
| | | | |
| Water Table Present? Yes | No X Depth (inches): | | |
| Water Table Present? Yes Saturation Present? Yes | No X Depth (inches): No X Depth (inches): | Wetland Hyd | rology Present? Yes <u>No X</u> |
| Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) | No X Depth (inches): No X Depth (inches): | Wetland Hyd | rology Present? Yes <u>No X</u> |
| Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge, more | No X Depth (inches): No X Depth (inches): nitoring well, aerial photos, previous inspective | Wetland Hyd | rology Present? Yes <u>No X</u> ble: |
| Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge, mor | No X Depth (inches): No X Depth (inches): nitoring well, aerial photos, previous inspec | Wetland Hyd ctions), if availab | rology Present? Yes <u>No X</u> ole: |

Sampling Point: Up J

| _ | | Absolute | Dominant | Indicator | |
|-------------|---|---------------|-----------------|-----------|---|
| <u> re</u> | e Stratum (Plot size: 30) | % Cover | Species? | Status | Dominance Test worksheet: |
| 1. | Olmus alata | 30 | Yes | FACU | Number of Dominant Species |
| 2. | | 50 | res | FACW | That Are OBL, FACW, or FAC: 4 (A) |
| 3. 4. | Carya ovata | 10 | NO | FACU | Total Number of DominantSpecies Across All Strata:10 (B) |
| 5. | | | | | Percent of Dominant Species |
| 6. | | | | | That Are OBL, FACW, or FAC: 40.0% (A/B) |
| 7. | | | | | Prevalence Index worksheet: |
| | | 90 | =Total Cover | | Total % Cover of: Multiply by: |
| | 50% of total cover: | 45 20% | of total cover: | 18 | OBL species 0 x 1 = 0 |
| Sa | bling/Shrub Stratum (Plot size: 15 |) | | | FACW species 77 x 2 = 154 |
| 1. | Celtis laevigata | 20 | Yes | FACW | FAC species 30 x 3 = 90 |
| 2. | Asimina triloba | 15 | Yes | FAC | FACU species 140 x 4 = 560 |
| 3. | Ligustrum sinense | 30 | Yes | FACU | UPL species 10 x 5 = 50 |
| 4. | | | | | Column Totals: 257 (A) 854 (B) |
| 5. | | | | | Prevalence Index = B/A = 3.32 |
| 6. | | | | | Hydrophytic Vegetation Indicators: |
| 7. | | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | | 2 - Dominance Test is >50% |
| 0. 0 | | | | | $3 - \text{Prevalence Index is } < 3.0^1$ |
| 5. | | 65 | Total Cover | | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 50% - (1-1-) | <u>co</u> | | 10 | data in Remarks or on a separate sheet) |
| | 50% of total cover: | 33 20% | of total cover: | 13 | |
| He | rb Stratum (Plot size: 30) | | | | Problematic Hydrophytic Vegetation (Explain) |
| 1. | Poa annua | 25 | Yes | FACU | ¹ Indicators of hydric soil and wetland hydrology must be |
| 2. | Thlaspi arvense | 5 | No | UPL | present, unless disturbed or problematic. |
| 3. | Teucrium canadense | 2 | No | FACW | Definitions of Four Vegetation Strata: |
| 4. | Stellaria media | 5 | No | UPL | Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 5. | Ageratina altissima | 15 | Yes | FACU | more in diameter at breast height (DBH), regardless of |
| 6. | Ligustrum sinense | 15 | Yes | FACU | neight. |
| 7. | Impatiens capensis | 5 | No | FACW | Sapling/Shrub – Woody plants, excluding vines, less |
| 8. | Symphoricarpos orbiculatus | 15 | Yes | FACU | than 3 in. DBH and greater than or equal to 3.28 ft (m) tall. |
| 9. | | | | | |
| 10. 11. | | | | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| | | 87 | =Total Cover | ······· | Woody Vine – All woody vines greater than 3.28 ft in |
| | 50% of total cover: | 14 20% | of total cover | 18 | height. |
| Wc | ody Vine Stratum (Plot size: 5) | | | | |
| 1 | Smilov rotundifolio | 15 | Voc | FAC | |
| і. О | | 15 | Tes | FAC | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | Hydrophytic |
| | | 15 | =Total Cover | | Vegetation |
| | 50% of total cover: | 8 20% | of total cover: | 3 | Present? Yes No X |
| Re | marks: (Include photo numbers here or on a sepa | arate sheet.) | | | |

| Profile Des | cription: (Describe t | to the dep | oth needed to docu | ment th | ne indica | tor or co | onfirm the abse | nce of indi | cators.) | | |
|------------------------|--------------------------|------------|--------------------|-----------|-------------------|------------------|-----------------|-------------------------|--------------|--------------|--------------------------|
| Depth | Matrix | | Redo | x Featu | res | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | R | emarks | |
| 0-5 | 10YR 4/4 | 98 | 7.5YR 4/6 | 2 | С | m | Loamy/Claye | ey | Distinct red | ox concent | ations |
| 5-12 | 10YR 3/4 | 95 | 7.5YR 4/6 | 5 | с | m | Loamy/Claye | ey | Distinct red | ox concenti | ations |
| | · | | | | | | | | | | |
| | | | | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Depl | etion, RM | =Reduced Matrix, N | IS=Masł | ked Sand | Grains. | 2Loo | cation: PL: | =Pore Lining | g, M=Matrix | |
| Hydric Soil | Indicators: | | | | | | | Indicators | for Proble | matic Hyd | ric Soils ³ : |
| Histosol | (A1) | | Polyvalue Be | elow Sur | face (S8) | (MLRA | 147, 148) | 2 cm | Muck (A10) | (MLRA 147 | 7) |
| Histic E | pipedon (A2) | | Thin Dark Su | urface (S | 69) (MLR | A 147, 14 | 48) | Coast | Prairie Red | ox (A16) | |
| Black H | istic (A3) | | Loamy Muck | y Miner | al (F1) (M | LRA 136 | 5) | (ML | RA 147, 14 | B) | |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | ed Matri | x (F2) | | | Piedm | ont Floodpl | ain Soils (F | 19) |
| Stratifie | d Layers (A5) | | Depleted Ma | trix (F3) | | | | (ML | RA 136, 14 | 7) | |
| 2 cm Mu | uck (A10) (LRR N) | | Redox Dark | Surface | (F6) | | | Red F | arent Mater | ial (F21) | |
| Deplete | d Below Dark Surface | e (A11) | Depleted Da | rk Surfa | ce (F7) | | | (out | side MLRA | 127, 147, | 148) |
| Thick Da | ark Surface (A12) | · · · | Redox Depre | essions | (F8) | | | Very S | Shallow Darl | k Surface (I | -22) |
| Sandy N | /uckv Mineral (S1) | | Iron-Mangar | ese Ma | sses (F12 | | ۱. | Other | (Explain in | Remarks) | , |
| Sandy G | Gleved Matrix (S4) | | | 5) | , | , 、 | | | | , | |
| Sandy F | Redox (S5) | | Umbric Surfa | ace (F13 | 3) (MLRA | 122. 136 | 5) | ³ Indicators | of hydroph | vtic vegetat | ion and |
| Stripped | Matrix (S6) | | Piedmont Fl | odolain | Soils (F1 | 9) (MI R | A 148) | wetlar | nd hydrology | must be n | resent |
| Dark Su | rface (S7) | | Red Parent | Vaterial | (F21) (M | LRA 127 | , 147, 148) | unless | disturbed of | or problema | tic. |
| Restrictive | Laver (if observed): | | | | | | | | | | |
| Type: | | | | | | | | | | | |
| Depth (i | nches): | | | | | | Hydric Soil | Present? | Yes | No | х |
| Remarks: | | | | | | | | | | | |
| | | | | | | | | | | | |

| U.S. Army Corps of Engineers |
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| WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region |
| See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R |

| Project/Site: Bellamy Property | | City/County: Clark | sville/Montgomery County | Sampling Date: 5/13/2022 |
|--|---|--------------------------|------------------------------|---------------------------|
| Applicant/Owner: Provident Realty Advise | ors | | State: TN | Sampling Point: Up K |
| Investigator(s): Marian Rubin & Kari Kennel - | Spectrum Environmental | Section, Township, Ra | nge: N/A | |
| Landform (hillside, terrace, etc.): Depressio | n/Toeslope Loc | al relief (concave, con | vex, none): Concave | Slope (%): 0-2 |
| Subregion (LRR or MLRA); LRR N. MLRA 12 | 22 Lat: 36.608534° | Lo | ng: -87.239202° | Datum: |
| Soil Map Unit Name: Gu—Guthrie silt Ioam. | 0 to 2 percent slopes, occa | sionally ponded | NWI classifica | tion: None |
| Are alimatic / hydrologic conditions on the site | turnical for this time of year' | | | avalain in Romarka) |
| Are Vegetation Soil or Hydrol | ogy significantly dis | turbed? Are "Norm | | |
| | And the second secon | | | |
| | ogynaturally proble | | i, explain any answers in Re | marks.) |
| SUMMARY OF FINDINGS – Attach | site map snowing sa | ampling point loc | ations, transects, imp | portant features, etc. |
| Hydrophytic Vegetation Present? | Yes No X | Is the Sampled Area | 1 | |
| Hydric Soil Present? | Yes No X | within a Wetland? | Yes | No X |
| Wetland Hydrology Present? | Yes No X | | | |
| Remarks: | | | | |
| | | | | |
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| HYDROLOGY | | | | |
| Wetland Hydrology Indicators: | | | Secondary Indicators | (minimum of two required) |
| Primary Indicators (minimum of one is require | ed; check all that apply) | | Surface Soil Crac | ks (B6) |
| Surface Water (A1) | True Aquatic Plants (I | B14) | Sparsely Vegetate | ed Concave Surface (B8) |
| High Water Table (A2) | Hydrogen Sulfide Odd | or (C1) | X Drainage Patterns | s (B10) |
| Saturation (A3) | Oxidized Rhizosphere | es on Living Roots (C3) | Moss Trim Lines | (B16) |
| Water Marks (B1) | Presence of Reduced | Iron (C4) | Dry-Season Wate | er Table (C2) |
| Sediment Deposits (B2) | Recent Iron Reduction | n in Tilled Soils (C6) | Crayfish Burrows | (C8) |
| Drift Deposits (B3) | Thin Muck Surface (C | ;7) | Saturation Visible | on Aerial Imagery (C9) |
| Aigai Mat of Crust (B4) | Other (Explain in Ren | narks) | Stunted or Stress | ed Plants (D1) |
| Inundation Visible on April Imagony (P7) | | | Shallow Aquitard | |
| Water-Stained Leaves (B0) |) | | Shallow Aquitaru | (D3) Relief (D4) |
| Aquatic Fauna (B13) | | | FAC-Neutral Test | |
| Field Observations: | | | | |
| Surface Water Present? Yes | No X Depth (inche | es): | | |
| Water Table Present? Yes | No X Depth (inche | es): | | |
| Saturation Present? Yes | No X Depth (inche | es): Wetla | and Hydrology Present? | Yes No X |
| (includes capillary fringe) | | | | |
| Describe Recorded Data (stream gauge, mor | nitoring well, aerial photos, | previous inspections), i | if available: | |
| | | | | |
| | | | | |
| Remarks: | 11/1/02 | | | |
| ווויש נמנמ אסוווג שמש נמגפון ווו נוופ נוזמווחפן סך ע | ****** | | | |
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| | | | | |

Sampling Point: Up K

| | Absolute | Dominant | Indicator | |
|---|--------------|-----------------|-----------|--|
| Tree Stratum (Plot size: 30) | % Cover | Species? | Status | Dominance Test worksheet: |
| 1. Liquidambar styraciflua | 5 | No | FAC | Number of Dominant Species |
| 2. Quercus alba | 10 | Yes | FACU | That Are OBL, FACW, or FAC: <u>3</u> (A) |
| 3. Celtis laevigata | 15 | Yes | FACW | Total Number of Dominant |
| 4 | | | | Species Across All Strata: 7 (B) |
| 5 | | | | Percent of Dominant Species |
| 6 | | | | That Are OBL, FACW, or FAC: 42.9% (A/B) |
| 7 | | | | Prevalence Index worksheet: |
| | 30 | =Total Cover | | Total % Cover of: Multiply by: |
| 50% of total cover: 1 | 5 20% | of total cover: | 6 | OBL species 15 x 1 = 15 |
| Sapling/Shrub Stratum (Plot size: 15) |) | | | FACW species 32 x 2 = 64 |
| 1. Juglans nigra | 5 | Yes | FACU | FAC species 15 x 3 = 45 |
| 2. Symphoricarpos orbiculatus | 15 | Yes | FACU | FACU species 50 x 4 = 200 |
| 3 | | | | UPL species 0 x 5 = 0 |
| 4 | | | | Column Totals: <u>112</u> (A) <u>324</u> (B) |
| 5 | | | | Prevalence Index = B/A = 2.89 |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | 2 - Dominance Test is >50% |
| 9 | | | | 3 - Prevalence Index is ≤3.0 ¹ |
| | 20 | =Total Cover | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: 1 | 0 20% | of total cover: | 4 | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 30) | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Xanthium strumarium | 5 | No | FAC | ¹ Indicators of hydric soil and wetland hydrology must be |
| 2. Carex scabrata | 10 | Yes | OBL | present, unless disturbed or problematic. |
| 3. Commelina virginica | 10 | Yes | FACW | Definitions of Four Vegetation Strata: |
| 4. Cardamine hirsuta | 15 | Yes | FACU | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 5. Cephalanthus occidentalis | 5 | No | OBL | more in diameter at breast height (DBH), regardless of |
| 6. Teucrium canadense | 2 | No | FACW | neight. |
| 7. Chenopodium album | 5 | No | FACU | Sapling/Shrub – Woody plants, excluding vines, less |
| 8. Rumex crispus | 5 | No | FAC | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 9. Trachelospermum difforme | 5 | No | FACW | m) tall. |
| 10 | | | | Herb – All herbaceous (non-woody) plants, regardless |
| 11 | | | | of size, and woody plants less than 3.28 ft tall. |
| | 62 | =Total Cover | | Woody Vine - All woody vines greater than 3.28 ft in |
| 50% of total cover: 3 | 20% | of total cover: | 13 | height. |
| Woody Vine Stratum (Plot size: 5) | | | | |
| 1 | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| | | =Total Cover | | Hydrophytic Vegetation |
| 50% of total cover: | 20% | of total cover: | | Present? Yes No X |
| Remarks: (Include photo numbers here or on a sena | rate sheet) | | | |
| remarks, (molude photo numbers here of on a sepa | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| Profile Des | cription: (Describe to | o the dep | th needed to docu | ment th | e indica | or or co | nfirm the absenc | e of indicators.) | | |
|---|---|------------|--------------------|------------|-------------------|------------------|---------------------------|--|--|--|
| Depth | Matrix | | Redo | x Featur | es | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | | |
| 0-9 | 10YR 5/3 | 95 | 7.5YR 4/6 | 5 | С | m | Loamy/Clayey | Prominent redox concentrations | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | <u> </u> | | <u> </u> | | | | | | |
| ¹ Type: C=C | Concentration, D=Deple | etion, RM= | =Reduced Matrix, N | IS=Mask | ed Sand | Grains. | ² Loca | ation: PL=Pore Lining, M=Matrix. | | |
| Hydric Soil | Indicators: | | | | | | Ir | dicators for Problematic Hydric Soils | | |
| Histosc | ol (A1) | | Polyvalue Be | elow Sur | face (S8) | (MLRA | 147, 148) | 2 cm Muck (A10) (MLRA 147) | | |
| Histic E | pipedon (A2) | | Thin Dark S | urface (S | 39) (MLR | A 147, 14 | 48) | Coast Prairie Redox (A16) | | |
| Black H | listic (A3) | | Loamy Muck | y Miner | al (F1) (M | LRA 136 | (۱) | — (MLRA 147, 148) | | |
| Hydrog | en Sulfide (A4) | | Loamy Gley | ed Matrix | x (F2) | | | Piedmont Floodplain Soils (F19) | | |
| Stratifie | ed Layers (A5) | | Depleted Ma | atrix (F3) | · · | | | (MLRA 136, 147) | | |
| 2 cm M | luck (A10) (LRR N) | | Redox Dark | Surface | (F6) | | Red Parent Material (F21) | | | |
| Deplete | ed Below Dark Surface | (A11) | Depleted Da | rk Surfa | ce (F7) | | | (outside MLRA 127, 147, 148) | | |
| Thick E | Dark Surface (A12) | (•••) | Redox Depr | essions | (F8) | | | Verv Shallow Dark Surface (F22) | | |
| Sandv | Mucky Mineral (S1) | | Iron-Mangar | ese Mar | sses (F12 |) (LRR N | J | Other (Explain in Remarks) | | |
| Sandy | Gleved Matrix (S4) | | MLRA 13(| 3) | | / (| | | | |
| | Redox (S5) | | Umbric Surf | ace (F13 |) (MLRA | 122, 136 | 3) ³ | Indicators of hydrophytic vegetation and | | |
| Sandv | | | Piedmont Fl | oodplain | Soils (F1 | (MLR | Δ 148) | wetland hydrology must be present. | | |
| Sandy Strippe | d Matrix (S6) | | | Matarial | | | | unloss disturbed or problematic | | |
| Sandy Strippe Dark St | d Matrix (S6) urface (S7) | | Red Parent | viateriai | (FZ1) (IVI) | LRA 127, | , 14 <i>1</i> , 148) | unless disturbed of problematic. | | |
| Sandy Strippe Dark Stripte | d Matrix (S6) urface (S7) Layer (if observed): | | Red Parent | | (F21) (IVI | LRA 127 | , 147, 148) | | | |
| Sandy Strippe Dark St Restrictive Type: | d Matrix (S6) urface (S7) Layer (if observed): Bedro | vck | Red Parent | Material | (F21) (W | LRA 127 | , 147, 148) | unless disturbed of problematic. | | |

| U.S. Army Corps of Engineers |
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| WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region |
| See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R |

| Project/Site: Bellamy Property | | City/County: Clarksv | ville/Montgomery County | Sampling Date: 5/13/2022 |
|--|-------------------------------|-----------------------------|---------------------------|---------------------------|
| Applicant/Owner: Provident Realty Adviso | ors | | State: TN | Sampling Point: Up L |
| Investigator(s): Marian Rubin & Kari Kennel - | Spectrum Environmental | Section, Township, Rang | ge: N/A | |
| Landform (hillside, terrace, etc.): Depression | n/Toeslope Loo | al relief (concave, conve | x, none): Concave | Slope (%): 0-2 |
| Subregion (LRR or MLRA): LRR N. MLRA 12 | 22 Lat: 36.607250° | Long | 1: -87.238242° | Datum: |
| Soil Map Unit Name: Gu—Guthrie silt Ioam. (|) to 2 percent slopes, occa | | NWI classifica | tion: none |
| An alteration (hadrada air and the art hadrada air air air air air air air air air ai | | | | |
| Are climatic / hydrologic conditions on the site | typical for this time of year | ? Yes <u>X</u> | No (If no, e | explain in Remarks.) |
| Are Vegetation, Soil, or Hydrol | ogysignificantly dis | turbed? Are "Normal | I Circumstances" present? | Yes X No |
| Are Vegetation, Soil, or Hydrol | ogynaturally proble | ematic? (If needed, e | explain any answers in Re | marks.) |
| SUMMARY OF FINDINGS – Attach | site map showing s | ampling point locat | tions, transects, imp | oortant features, etc. |
| Hydrophytic Vegetation Present? | Yes No X | Is the Sampled Area | | |
| Hydric Soil Present? | Yes No X | within a Wetland? | Yes | No X |
| Wetland Hydrology Present? | Yes No X | | | |
| Remarks: | | | | |
| | | | | |
| HYDROLOGY | | | | |
| Wetland Hydrology Indicators: | | | Secondary Indicators | (minimum of two required) |
| Primary Indicators (minimum of one is require | ed; check all that apply) | | Surface Soil Cracl | ks (B6) |
| Surface Water (A1) | True Aquatic Plants (| B14) | Sparsely Vegetate | ed Concave Surface (B8) |
| High Water Table (A2) | Hydrogen Sulfide Ode | or (C1) | Drainage Patterns | s (B10) |
| Saturation (A3) | Oxidized Rhizosphere | es on Living Roots (C3) | Moss Trim Lines (| B16) |
| Water Marks (B1) | Presence of Reduced | l Iron (C4) | Dry-Season Wate | r Table (C2) |
| Sediment Deposits (B2) | Recent Iron Reductio | n in Tilled Soils (C6) | Crayfish Burrows | (C8) |
| Drift Deposits (B3) | Thin Muck Surface (C | 27) | Saturation Visible | on Aerial Imagery (C9) |
| Algal Mat or Crust (B4) | Other (Explain in Ren | narks) | Stunted or Stresse | ed Plants (D1) |
| Iron Deposits (B5) | | | Geomorphic Posit | ion (D2) |
| Inundation Visible on Aerial Imagery (B7) | | | Shallow Aquitard | (D3) |
| Water-Stained Leaves (B9) | | | Microtopographic | Relief (D4) |
| | | | | (D5) |
| | No. Y. Danth (back | | | |
| Surface water Present? Yes | No X Depth (inche | es): | | |
| Saturation Present? Ves | No X Depth (inche | -5) (wotian | d Hydrology Present? | Yes No X |
| (includes capillary fringe) | | | a nyarology riesenti | |
| Describe Recorded Data (stream gauge, mor | nitoring well, aerial photos. | previous inspections), if a | available: | |
| | | F | | |
| | | | | |
| Remarks: | | | | |
| орана | | | | |
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Sampling Point: Up L

| | Absolute | Dominant | Indicator | |
|--|----------|-----------------|-----------|--|
| Tree Stratum (Plot size: 30) | % Cover | Species? | Status | Dominance Test worksheet: |
| 1. Carya ovata | 10 | Yes | FACU | Number of Dominant Species |
| 2. acer rubrum | 15 | Yes | FAC | That Are OBL, FACW, or FAC: 3 (A) |
| 3. Nyssa sylvatica | 5 | No | FAC | Total Number of Dominant |
| 4 | | | | Species Across All Strata: 7 (B) |
| 5 | | | | |
| 6 | | | | Percent of Dominant Species |
| 7 | | | | Provelence Index worksheet: |
| 7. | | | | |
| | 30 | = I otal Cover | _ | Total % Cover of: Multiply by: |
| 50% of total cover: 1 | 5 20% | of total cover: | 6 | OBL species $0 	 x 1 = 0$ |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species 0 x 2 = 0 |
| 1. Symphoricarpos orbiculatus | 15 | Yes | FACU | FAC species 65 x 3 = 195 |
| 2. Acer negundo | 10 | Yes | FAC | FACU species 50 x 4 = 200 |
| 3. Ligustrum sinense | 10 | Yes | FACU | UPL species 40 x 5 =200 |
| 4. | | | | Column Totals: 155 (A) 595 (B) |
| 5. | | | | Prevalence Index = $B/A = 3.84$ |
| 6. | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| · | | | | 2 Dominanco Tost is >50% |
| o | | | | 2 - Dominance rest is >50% |
| 9 | | | | 3 - Prevalence index is ≤3.0 |
| | 35 | =Total Cover | | 4 - Morphological Adaptations' (Provide supporting |
| 50% of total cover: 1 | 8 20% | of total cover: | 7 | data in Remarks of on a separate sheet) |
| Herb Stratum (Plot size: 30) | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Microstegium vimineum | 10 | No | FAC | ¹ Indicators of hydric soil and wetland hydrology must be |
| 2. Stellaria media | 40 | Yes | UPL | present, unless disturbed or problematic. |
| 3. Persicaria longiseta | 20 | Yes | FAC | Definitions of Four Vegetation Strata: |
| 4. Campsis radicans | 5 | No | FAC | Tree – Woody plants, excluding vines 3 in (7.6 cm) or |
| 5. poa annua | 15 | No | FACU | more in diameter at breast height (DBH), regardless of |
| 6 | | | | height. |
| 7 | | | | |
| · | | | | than 3 in DBH and greater than or equal to 3.28 ft (1 |
| 8 | | | | m) tall. |
| 9 | | | | , |
| 10 | | | | Herb – All herbaceous (non-woody) plants, regardless |
| 11 | | | | or size, and woody plants less than 3.26 it tall. |
| | 90 | =Total Cover | | Woody Vine – All woody vines greater than 3.28 ft in |
| 50% of total cover:4 | 5 20% | of total cover: | 18 | height. |
| Woody Vine Stratum (Plot size: 5) | | | | |
| 1. | | | | |
| 2 | | | | |
| 3 | | | | |
| 4. | | | | |
| 4. | | | | |
| | | | | Hydrophytic |
| 5 | | -Total Cover | | Venetetien |
| 5 | | | | vegetation |

| Profile Desi | cription: (Describe | to the dep | oth needed to docu | ment th | e indicat | or or co | nfirm the abse | nce of indic | ators.) | |
|------------------------|--------------------------|------------|--------------------|----------------|-------------------|--------------------|-----------------|-------------------------|---------------------|---------------------|
| Depth | Matrix | | Redo | x Featur | es | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Rer | marks |
| 0-2 | 10YR 2/2 | 100 | | | | | Loamy/Claye | ЭУ | | |
| 2-12 | 10YR 4/3 | 100 | | | | | Loamy/Claye | ey | | |
| | | | | | | | | | | |
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| | <u></u> | | | | | | | | | |
| | · | | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Depl | etion, RM | =Reduced Matrix, N | IS=Mask | ked Sand | Grains. | ² Lo | cation: PL=I | Pore Lining, | M=Matrix. |
| Hydric Soil | Indicators: | | | | | | | Indicators | for Problem | atic Hydric Soils': |
| Histosol | (A1) | | Polyvalue Be | elow Sur | face (S8) | (MLRA [·] | 147, 148) | 2 cm M | uck (A10) (N | /LRA 147) |
| Histic E | pipedon (A2) | | Thin Dark S | urface (S | 69) (MLR | A 147, 14 | 8) | Coast F | Prairie Redox | k (A16) |
| Black H | istic (A3) | | Loamy Muck | y Miner | al (F1) (M | LRA 136 |) | (MLR | A 147, 148) | |
| Hydroge | en Sulfide (A4) | | Loamy Gley | ed Matrix | x (F2) | | | Piedmo | nt Floodplai | n Soils (F19) |
| Stratifie | d Layers (A5) | | Depleted Ma | trix (F3) | | | | (MLR | A 136, 147) | |
| 2 cm Mu | uck (A10) (LRR N) | | Redox Dark | Surface | (F6) | | | Red Pa | rent Materia | l (F21) |
| Deplete | d Below Dark Surface | e (A11) | Depleted Da | rk Surfa | ce (F7) | | | (outs | ide MLRA 1 | 27, 147, 148) |
| Thick Da | ark Surface (A12) | . , | Redox Depre | essions | (F8) | | | Very Sł | allow Dark | Surface (F22) |
| Sandy N | Aucky Mineral (S1) | | Iron-Mangar | ese Ma | sses (F12 |) (LRR N | I. | Other (| Explain in Re | emarks) |
| Sandy G | Gleved Matrix (S4) | | | 5) | `` | / 、 | | `` | • | , |
| Sandy F | Redox (S5) | | Umbric Surf | -, ace (F13 | | 122, 136 |) | ³ Indicators | of hydrophyti | ic vegetation and |
| Stripper | Matrix (S6) | | Piedmont Fl | nodnlain | Soils (F1 | 9) (MI R | , Δ 148) | wetland | l hydrology n | nust he present |
| Oark Su | urface (S7) | | Red Parent | Material | (F21) (MI | _RA 127. | 147, 148) | unless | disturbed or | problematic. |
| Bostrictivo | Lavor (if obsorved): | | | - atomai | () (| , | ,, | 4.1.000 | | providence |
| Turner | Layer (il observeu). | | | | | | | | | |
| Type. Denth (i | nches): | | | | | | Hydric Soil | Drosont? | Ves | No X |
| Dehii (i | | | | | | | | 1C3CIIL! | 169 | |

| U.S. Army Corps of Engineers |
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| WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region |
| See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R |

| Project/Site: Bellamy Property | | City/County: Clarksvi | lle/Montgomery County | Sampling Date: 5/20/2022 | | | |
|---|--|---------------------------------------|---|--------------------------|--|--|--|
| Applicant/Owner: Provident Realty Advis | ors | | State: TN | Sampling Point: Up M | | | |
| Investigator(s): Kari Kennel & Brittini Black - | Spectrum Environmental | Section, Township, Rang | e: N/A | | | | |
| Landform (hillside, terrace, etc.): Depression Subregion (LRR or MLRA): LRR N, MLRA 1. | n/Toeslope Lo 22 Lat: 36.607815° | cal relief (concave, convex | a, none): <u>Concave</u> : -87.239174° | Slope (%): 0-2 Datum: | | | |
| Soil Map Unit Name: Gu—Guthrie silt loam, | 0 to 2 percent slopes, occ | asionally ponded | NWI classificat | tion: none | | | |
| Are climatic / hydrologic conditions on the site | typical for this time of yea | r? Yes X | No (If no e | explain in Remarks) | | | |
| Are Vegetation, Soil, or Hydro | logysignificantly dis | sturbed? Are "Normal | Circumstances" present? | Yes X No | | | |
| Are Vegetation, Soil, or Hydro | logy naturally probl | ematic? (If needed, e | xplain any answers in Rer | marks.) | | | |
| SUMMARY OF FINDINGS – Attach | site map showing s | ampling point locat | ions, transects, imp | oortant features, etc. | | | |
| Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? | Yes No X Yes No X Yes No X | Is the Sampled Area within a Wetland? | Yes | No <u>X</u> | | | |
| Remarks: | | | | | | | |
| HYDROLOGY | | | | | | | |
| Wetland Hydrology Indicators: | | | Secondary Indicators (| minimum of two required) | | | |
| Primary Indicators (minimum of one is require | ed; check all that apply) | | Surface Soil Crack | (s (B6) | | | |
| Surface Water (A1) | True Aquatic Plants | (B14) | Sparsely Vegetate | d Concave Surface (B8) | | | |
| High Water Table (A2) | Hydrogen Sulfide Oc | lor (C1) | X Drainage Patterns (B10) | | | | |
| Saturation (A3) | Oxidized Rhizospher | es on Living Roots (C3) | Moss Trim Lines (I | B16) | | | |
| Water Marks (B1) | Presence of Reduce | d Iron (C4) | Dry-Season Water | r Table (C2) | | | |
| Sediment Deposits (B2) | Recent Iron Reduction | on in Tilled Soils (C6) | Crayfish Burrows (| (C8) | | | |
| Drift Deposits (B3) | Thin Muck Surface (| C7) | Saturation Visible | on Aerial Imagery (C9) | | | |
| Algal Mat or Crust (B4) | Other (Explain in Rei | marks) | Stunted or Stressed Plants (D1) | | | | |
| Iron Deposits (B5) | N | | Geomorphic Positi | ion (D2) | | | |
| Inundation Visible on Aerial Imagery (B7 |) | | Shallow Aquitard (| D3) Daliat (D4) | | | |
| Aquatic Fauna (B13) | | | FAC-Neutral Test | | | | |
| Field Observations: | | | | (20) | | | |
| Surface Water Present? Yes | No X Depth (inch | es): | | | | | |
| Water Table Present? Yes | No X Depth (inch | es): | | | | | |
| Saturation Present? Yes | No X Depth (inch | es): Wetland | d Hydrology Present? | Yes No X | | | |
| (includes capillary fringe) | | | | | | | |
| Describe Recorded Data (stream gauge, mo | nitoring well, aerial photos | , previous inspections), if a | vailable: | | | | |
| Remarks: | | | | | | | |
| This data point was taken in the channel of | WWC3 | | | | | | |
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Sampling Point: Up M

| | Absolute | Dominant | Indicator | |
|--|-------------|-----------------|-----------|--|
| Tree Stratum (Plot size: 30) | % Cover | Species? | Status | Dominance Test worksheet: |
| 1 | | | | Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) |
| 3. | | | | Total Number of Dominant Species Across All Strata: 2 (B) |
| 5 | | | | |
| 6. | | | | That Are OBL, FACW, or FAC: 50.0% (A/B) |
| 7. | | | | Prevalence Index worksheet: |
| | | =Total Cover | | Total % Cover of: Multiply by: |
| 50% of total cover: | 20% | of total cover: | | OBL species 0 $x 1 = 0$ |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species 5 $x 2 = 10$ |
| 1. | | | | FAC species 55 x 3 = 165 |
| 2. | | | | FACU species 35 x 4 = 140 |
| 3. | | | | UPL species 0 x 5 = 0 |
| 4. | | | | Column Totals: 95 (A) 315 (B) |
| 5. | | | | Prevalence Index = $B/A = 3.32$ |
| 6. | | | | Hydrophytic Vegetation Indicators: |
| 7. | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8. | | | | 2 - Dominance Test is >50% |
| 9. | | | | 3 - Prevalence Index is ≤3.0 ¹ |
| | | =Total Cover | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: | 20% | of total cover: | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Xanthium strumarium | 50 | Yes | FAC | ¹ Indicators of hydric soil and wetland hydrology must be |
| 2. Festuca arundinacea | 35 | Yes | FACU | present, unless disturbed or problematic. |
| 3. Diodia virginiana | 5 | No | FACW | Definitions of Four Vegetation Strata: |
| 4. Rumex crispus | 5 | No | FAC | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 5. | | | | more in diameter at breast height (DBH), regardless of |
| 6. | | | | height. |
| 7. | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 8. | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 9. | | | | m) tall. |
| 10. | | | | Herb – All herbaceous (non-woody) plants, regardless |
| 11. | | | | of size, and woody plants less than 3.28 ft tall. |
| | 95 | =Total Cover | | Woody Vine - All woody vines greater than 3.28 ft in |
| 50% of total cover: 48 | 3 20% | of total cover: | 19 | height. |
| Woody Vine Stratum (Plot size: 15) | | | | |
| 1 | | | | |
| 2. | | | | |
| 3. | | | | |
| 4 | | | | |
| 5 | | | | Hydrophytic |
| | | =Total Cover | | Vegetation |
| 50% of total cover: | 20% | of total cover: | | Present? Yes No X |
| Remarks: (Include photo numbers here or on a separ | ate sheet.) | | | |
| | , | | | |
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| Profile Desc | cription: (Describe | to the dep | oth needed to docu | iment th | ne indica | tor or co | onfirm the absen | ce of indicat | ors.) | | |
|------------------------|--------------------------|------------|--|----------------|-------------------|------------------|------------------|----------------------------|--------------------|-----------------|-------------------------|
| Depth | Matrix | | Redo | x Featur | es | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Rer | narks | |
| 0-10 | 10YR 5/3 | 90 | 7.5YR 4/6 | 10 | С | М | Loamy/Claye | / | | | |
| 10-12 | 10YR 5/3 | 85 | 7.5YR 4/6 | 15 | С | М | Loamv/Clave | v Pror | ninent redo | ox concen | trations |
| | | | | | | | | <u> </u> | | | |
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| | | | | | | | | | | | |
| | | | | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Depl | etion, RM | =Reduced Matrix, N | IS=Mask | ked Sand | Grains. | ² Loc | ation: PL=Pc | re Lining, | M=Matrix. | |
| Hydric Soil | Indicators: | | | | | | l | Indicators fo | r Problem | atic Hydr | ic Soils ³ : |
| Histosol | (A1) | | Polyvalue B | elow Sur | face (S8) | (MLRA | 147, 148) | 2 cm Mu | ck (A10) (N | ILRA 147 |) |
| Histic E | pipedon (A2) | | Thin Dark Surface (S9) (MLRA 147, 148) | | | | 48) | Coast Pra | airie Redox | (A16) | |
| Black Hi | istic (A3) | | Loamy Mucl | y Miner | al (F1) (N | LRA 136 | 5) <u> </u> | (MLRA | 147, 148) | | |
| Hydroge | en Sulfide (A4) | | Loamy Gley | ed Matrix | x (F2) | | - | Piedmon | Floodplai | n Soils (F | 19) |
| Stratified | d Layers (A5) | | Depleted Ma | atrix (F3) | () | | - | (MLRA | 136, 147) | , | , |
| 2 cm Mu | uck (A10) (LRR N) | | Redox Dark | Surface | (F6) | | | Red Pare | nt Materia | l (F21) | |
| Deplete | d Below Dark Surface | e (A11) | Depleted Da | rk Surfa | ce (F7) | | - | (outsid | e MLRA 1 | 27. 147. 1 | 48) |
| Thick Da | ark Surface (A12) | () | Redox Depr | essions | (F8) | | | Verv Sha | llow Dark \$ | , Surface (F | 22) |
| Sandy N | /ucky Mineral (S1) | | Iron-Mangar | ese Ma | sses (F12 | | - | Other (E) | plain in Re | emarks) | , |
| Sandy G | Gleved Matrix (S4) | | MLRA 13 | 6) | | , | -, | | | , | |
| Sandy F | Redox (S5) | | Umbric Surf | -, ace (F13 | | 122, 136 | 5) (7 | ³ Indicators of | hvdrophyti | c vegetat | ion and |
| Stripped | Matrix (S6) | | Piedmont Fl | oodolain | Soils (F | 9) (MI R | A 148) | wetland k | vdrology n | nust be pr | resent |
| Dark Su | Inface (S7) | | Red Parent | Material | (F21) (M | LRA 127 | , 147, 148) | unless di | sturbed or | problema | tic. |
| Restrictive | Layer (if observed): | | | | | | | | | | |
| Type: | | | | | | | | | | | |
| Depth (i | nches): | | | | | | Hydric Soil P | resent? | Yes | No | х |
| Pomarka: | , | | | | | | | | | | |
| Romano. | | | | | | | | | | | |
| | | | | | | | | | | | |

| U.S. Army Corps of Engineers |
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| WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region |
| See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R |

| Project/Site: Bellamy Property | | City/County: Clarksvi | lle/Montgomery County S | ampling Date: <u>5/20/2022</u> | | |
|--|--------------------------------|-----------------------------------|---|--------------------------------|--|--|
| Applicant/Owner: Provident Realty Advis | sors | | State: TN S | ampling Point: Up N | | |
| Investigator(s): Kari Kennel & Brittini Black - | Spectrum Environmental | Section, Township, Rang | e: N/A | | | |
| Landform (hillside, terrace, etc.): Depressi | on/Toeslope Lo | - ocal relief (concave, conve) | , none): Concave | Slope (%): 0-2 | | |
| Subregion (LRR or MLRA): LRR N. MLRA | 122 Lat: 36.608227° | Long | : -87.239750° | Datum: | | |
| Soil Map Unit Name: Gu—Guthrie silt Ioam | 0 to 2 percent slopes, occ | asionally ponded | NWI classification | | | |
| | | | | | | |
| Are climatic / hydrologic conditions on the site | e typical for this time of yea | rr res <u>x</u> | (Ir no, exp | Vac V Na | | |
| Are vegetation, Soil, or Hydro | significantly di | sturbed? Are "Normal | Circumstances" present? | Yes X NO | | |
| Are Vegetation, Soil, or Hydro | plogynaturally problem | ematic? (If needed, e | explain any answers in Rema | rks.) | | |
| SUMMARY OF FINDINGS – Attach | site map showing s | ampling point locat | ions, transects, impo | rtant features, etc. | | |
| Hydrophytic Vegetation Present? | Yes No X | Is the Sampled Area | | | | |
| Hydric Soil Present? | Yes No X | within a Wetland? | Yes | No X | | |
| Wetland Hydrology Present? | Yes No X | | | | | |
| | | | | | | |
| HYDROLOGY | | | | | | |
| Wetland Hydrology Indicators: | | | Secondary Indicators (mi | nimum of two required) | | |
| Primary Indicators (minimum of one is requi | red; check all that apply) | | Surface Soil Cracks | (B6) | | |
| Surface Water (A1) | True Aquatic Plants | (B14) | Sparsely Vegetated Concave Surface (B8) | | | |
| High Water Table (A2) | Hydrogen Sulfide Od | dor (C1) | X Drainage Patterns (B10) | | | |
| Saturation (A3) | Oxidized Rhizosphe | res on Living Roots (C3) | Moss Trim Lines (B1 | 6) Seble (C2) | | |
| Sediment Deposits (B2) | Recent Iron Reducti | on in Tilled Soils (C6) | Cravfish Burrows (C | able (CZ) | | |
| Drift Deposits (B3) | Thin Muck Surface (| C7) | Saturation Visible on | Aerial Imagery (C9) | | |
| Algal Mat or Crust (B4) | Other (Explain in Re | marks) | Stunted or Stressed Plants (D1) | | | |
| Iron Deposits (B5) | | | Geomorphic Position (D2) | | | |
| Inundation Visible on Aerial Imagery (B | 7) | | Shallow Aquitard (D3 | 3) | | |
| Water-Stained Leaves (B9) | | | Microtopographic Re | lief (D4) | | |
| Aquatic Fauna (B13) | | | FAC-Neutral Test (D | 5) | | |
| Field Observations: | | | | | | |
| Surface Water Present? Yes | No X Depth (inch | nes): | | | | |
| Water Table Present? Yes | No X Depth (inch | nes): | d Ukudua la mu Drago nt 2 | Vaa Na V | | |
| (includes conillary frings) | No X Depth (Incr | | a Hydrology Present? | | | |
| Describe Recorded Data (stream dauge mo | onitoring well aerial photos | previous inspections) if a | vailable. | | | |
| Describe Recorded Data (Stream gauge, m | | , previous inspections), il z | | | | |
| Remarks: | | | | | | |
| This data point was taken in the channel of | WWC3 | | | | | |
| | | | | | | |

Sampling Point: Up N

| | Abaaluta | Deminant | lu alia atau | |
|--|-------------|-----------------|--------------|---|
| Tree Stratum (Plot size: 30) | % Cover | Species? | Status | Dominance Test worksheet: |
| 1. 2. | | | | Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) |
| 3. | | | | Total Number of Dominant |
| 4 | | | | |
| 6. | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B) |
| 7 | | | | Prevalence Index worksheet: |
| | | =Total Cover | | Total % Cover of: Multiply by: |
| 50% of total cover: | 20% | of total cover: | | OBL species 0 x 1 = 0 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species 5 x 2 = 10 |
| 1 | | | | FAC species 2 x 3 = 6 |
| 2 | | | | FACU species 90 x 4 = 360 |
| 3. | | | | UPL species 0 x 5 = 0 |
| 4. | | | | Column Totals: 97 (A) 376 (B) |
| 5. | | | | Prevalence Index = B/A = 3.88 |
| 6. | | | | Hydrophytic Vegetation Indicators: |
| 7. | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8. | | | | 2 - Dominance Test is >50% |
| 9. | | | | 3 - Prevalence Index is ≤3.0 ¹ |
| | | =Total Cover | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: | 20% | of total cover: | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Xanthium strumarium | 2 | No | FAC | ¹ Indicators of hydric soil and wotland hydrology must be |
| 2. Festuca arundinacea | 5 | No | FACU | present, unless disturbed or problematic. |
| 3. Diodia virginiana | 5 | No | FACW | Definitions of Four Vegetation Strata: |
| 4. Bouteloua dactyloides | 80 | Yes | FACU | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 5. Plantago rugelii | 5 | No | FACU | more in diameter at breast height (DBH), regardless of |
| 6. | | | | height. |
| 7. | | | | Sapling/Shrub - Woody plants, excluding vines, less |
| 8. | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 9. | | | | m) tall. |
| 10. | | | | Herb – All herbaceous (non-woody) plants, regardless |
| 11. | | | | of size, and woody plants less than 3.28 ft tall. |
| | 97 | =Total Cover | | Woody Vine - All woody vines greater than 3.28 ft in |
| 50% of total cover: 45 | 9 20% | of total cover: | 20 | height. |
| Woody Vine Stratum (Plot size: 15) | | | | |
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| | | =Total Cover | | Hydrophytic Vegetation |
| 50% of total cover: | 20% | of total cover: | | Present? Yes No X |
| Bemerker (Include photo numbers here or on a const | oto oboot) | | | |
| remarks. (include photo numbers here of on a separ | ate Sheet.) | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| Depth | Matrix | | Redo | x Featur | es | | | |
|------------------------|-----------------------------|--|--|-------------------|---------------------------------|-------------------|---------------------------------|---|
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-12 | 10YR 4/3 | 95 | 7.5YR 4/6 | 5 | С | Μ | Loamy/Clayey | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | · | | | | | <u> </u> | | <u> </u> |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Deple | etion, RM | =Reduced Matrix, N | S=Mask | ed Sand | Grains. | ² Locat | ion: PL=Pore Lining, M=Matrix. |
| Hydric Soil | Indicators: | _ | | _ | | | Ind | dicators for Problematic Hydric Soi |
| Histosol | l (A1) | | Polyvalue Be | low Sur | face (S8) | (MLRA 1 | 147, 148) | 2 cm Muck (A10) (MLRA 147) |
| Histic E | pipedon (A2) | | Thin Dark Surface (S9) (MLRA 147, 148) | | | | 8) | Coast Prairie Redox (A16) |
| Black H | istic (A3) | Loamy Muck | y Minera | al (F1) (N | ILRA 136 | | (MLRA 147, 148) | |
| Hydroge | en Sulfide (A4) |) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils | | | Piedmont Floodplain Soils (F19) | | | |
| Stratifie | d Layers (A5) | Depleted Ma | trix (F3) | | | | | |
| 2 cm Mu | cm Muck (A10) (LRR N) Redox | | | Surface | (F6) | | | Red Parent Material (F21) |
| Deplete | d Below Dark Surface | (A11) | Depleted Da | rk Surfa | ce (F7) | | | - (outside MLRA 127, 147, 148) |
| Thick D | ark Surface (A12) | Redox Depre | essions (| (F8) | | | Very Shallow Dark Surface (F22) | |
| Sandy N | Mucky Mineral (S1) | | Iron-Mangar | ese Mas | sses (F12 | 2) (LRR N | i, <u> </u> | Other (Explain in Remarks) |
| Sandy C | Gleyed Matrix (S4) | | MLRA 130 | i) | | | | _ |
| Sandy F | Redox (S5) | | Umbric Surfa | ace (F13 |) (MLRA | 122, 136 |) ³ lr | ndicators of hydrophytic vegetation and |
| Strippec | d Matrix (S6) | | Piedmont Fl | odplain | Soils (F | 19) (MLR / | A 148) | wetland hydrology must be present, |
| Dark Su | ırface (S7) | | Red Parent | Vaterial | (F21) (M | LRA 127, | 147, 148) | unless disturbed or problematic. |
| Restrictive | Layer (if observed): | | | | | | | |
| Type: | | | | | | | | |
| Donth (i | nches) | | | | | | Hvdric Soil Pre | esent? Yes No X |

| U.S. Army Corps of Engineers |
|--|
| WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region |
| See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R |

OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

| Project/Site: Bellamy Property | | City/County: Clarksvill | e/Montgomery County | Sampling Date: 5/20/2022 |
|--|---------------------------------|------------------------------|-------------------------|---------------------------|
| Applicant/Owner: Provident Realty Advis | sors | | State: TN | Sampling Point: Up O |
| Investigator(s): Kari Kennel & Brittini Black - | Spectrum Environmental | Section, Township, Range | : N/A | |
| Landform (hillside, terrace, etc.): Depressi | on/Toeslope Lo | cal relief (concave, convex, | none): Concave | Slope (%): 0-2 |
| Subregion (LRR or MLRA): LRR N. MLRA | 122 Lat: 36.608356° | Lona: - | .87.239347° | Datum: |
| Soil Map Unit Name: Gu—Guthrie silt Ioam | 0 to 2 percent slopes, occ | asionally ponded | NWI classifica | tion: none |
| | | | | |
| Are climatic / hydrologic conditions on the site | e typical for this time of year | r? Yes <u>X</u> | No (If no, e | explain in Remarks.) |
| Are Vegetation, Soil, or Hydro | blogysignificantly dis | sturbed? Are "Normal C | Circumstances" present? | Yes X No |
| Are Vegetation, Soil, or Hydro | plogynaturally proble | ematic? (If needed, ex | plain any answers in Re | marks.) |
| SUMMARY OF FINDINGS – Attach | site map showing s | ampling point location | ons, transects, imp | portant features, etc. |
| Hydrophytic Vegetation Present? | Yes No X | Is the Sampled Area | | |
| Hydric Soil Present? | Yes No X | within a Wetland? | Yes | No X |
| Wetland Hydrology Present? | Yes No X | | | |
| Remarks: | | | | |
| | | | | |
| HYDROLOGY | | | | |
| Wetland Hydrology Indicators: | | | Secondary Indicators | (minimum of two required) |
| Primary Indicators (minimum of one is requi | red; check all that apply) | | Surface Soil Crac | ks (B6) |
| Surface Water (A1) | True Aquatic Plants (| (B14) | Sparsely Vegetate | ed Concave Surface (B8) |
| High Water Table (A2) | Hydrogen Sulfide Od | or (C1) | X Drainage Patterns | s (B10) |
| Saturation (A3) | Oxidized Rhizospher | es on Living Roots (C3) | Moss Trim Lines | (B16) |
| Water Marks (B1) | Presence of Reduced | d Iron (C4) | Dry-Season Wate | er Table (C2) |
| Sediment Deposits (B2) | Recent Iron Reduction | on in Tilled Soils (C6) | Crayfish Burrows | (C8) |
| Drift Deposits (B3) | Thin Muck Surface (| 27) | Saturation Visible | on Aerial Imagery (C9) |
| Algal Mat or Crust (B4) | Other (Explain in Rer | marks) | Stunted or Stress | ed Plants (D1) |
| Iron Deposits (B5) | | | Geomorphic Posi | tion (D2) |
| Inundation Visible on Aerial Imagery (B | 7) | | Shallow Aquitard | (D3) |
| Water-Stained Leaves (B9) | | | Microtopographic | Relief (D4) |
| Aquatic Fauna (B13) | | | FAC-Neutral Test | : (D5) |
| Field Observations: | | | | |
| Surface Water Present? Yes | No X Depth (inch | es): | | |
| Water Table Present? Yes | No X Depth (inch | es): | Undreleas Dresent? | Vac Na V |
| (includes capillary fringe) | | | Hydrology Present? | |
| Describe Recorded Data (stream gauge mo | poitoring well aerial photos | previous inspections) if av | ailable. | |
| | sintening weak, dental priotos, | | | |
| Remarks: | | | | |
| This data point was taken in the channel c | of WWC3 | | | |
| | | | | |

Sampling Point: Up O

| | Abaaluta | Dominant | Indiantar | |
|--|-------------|-----------------|-----------|--|
| Tree Stratum (Plot size: 30) | % Cover | Species? | Status | Dominance Test worksheet: |
| | 10 | Vec | | Dominance rest worksheet. |
| | 10 | res | FACW | Number of Dominant Species |
| 2. Quercus velutina | 10 | Yes | UPL | That Are OBL, FACW, or FAC: (A) |
| 3 | | | | Total Number of Dominant |
| 4. | | | | Species Across All Strata: 4 (B) |
| 5. | | | | Percent of Dominant Species |
| 6. | | | | That Are OBL, FACW, or FAC: 50.0% (A/B) |
| 7. | | | | Prevalence Index worksheet: |
| · · · · · · · · · · · · · · · · · · · | 20 | -Total Covor | | Total % Covor of: Multiply by: |
| | 20 | | 4 | |
| | 20% | of total cover: | 4 | |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species 28 x 2 = 56 |
| 1 | | | | FAC species <u>6</u> x 3 = <u>18</u> |
| 2. | | | | FACU species 33 x 4 = 132 |
| 3. | | | | UPL species 13 x 5 = 65 |
| 4. | | | | Column Totals: 80 (A) 271 (B) |
| 5 | | | | Prevalence Index = $B/A = -3.39$ |
| 6 | | | | |
| 0 | | | | 1 Daniel Test for Underschutig Versetetier |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | 2 - Dominance Test is >50% |
| 9 | | | | 3 - Prevalence Index is ≤3.0 ¹ |
| | | =Total Cover | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: | 20% | of total cover: | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Xanthium strumarium | 3 | No | FAC | ¹ Indiactors of hydric coil and watland hydrology must be |
| 2. Dichanthelium scoparium | 15 | Yes | FACW | present, unless disturbed or problematic. |
| 3 Allium ursinum | 5 | No | FACU | Definitions of Four Vegetation Strata: |
| A Plantago lanceolata | 3 | No | | |
| | | No | | I ree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH) regardless of |
| 5. Ruinex crispus | | | | height. |
| 6. Commelina Virginica | 3 | NO | FACW | ů, |
| 7. Ambrosia artemisiifolia | 3 | No | FACU | Sapling/Shrub – Woody plants, excluding vines, less |
| 8. Bouteloua dactyloides | 25 | Yes | FACU | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 9 | | | | |
| 10. | | | | Herb – All herbaceous (non-woody) plants, regardless |
| 11. | | | | of size, and woody plants less than 3.28 ft tall. |
| | 60 | =Total Cover | | Woody Vine – All woody vines greater than 3.28 ft in |
| 50% of total cover: 30 |) 20% | of total cover: | 12 | height. |
| Woody Vine Stratum (Plot size: 15) | | | | |
| | | | | |
| 1 | | | | |
| 2 | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| | | =Total Cover | | Hydrophytic |
| 50% of total cover: | 20% | of total cover: | | Present? Yes No X |
| | | | | |
| Remarks: (Include photo numbers here or on a separ | ate sheet.) | | | |
| | | | | |
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| | | | | |

| Depin | Matrix | | Redo | x Featur | es | | | |
|--|--|---|---------------|--|--------------------------------|---------------------------------------|---------------------------------|--|
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-3 | 10YR 4/3 | 98 | 7.5YR 4/6 | 2 | С | Μ | Loamy/Claye | ey |
| 3-12 | 10YR 4/3 | 95 | 7.5YR 4/6 | 5 | С | М | Loamy/Claye | ey Prominent redox concentrations |
| | | | | | | | | |
| | | | | | | | | |
| | · | | | | | _ | | |
| Type: C=C | oncentration, D=Deple | etion, RM- | | IS=Mask | ked Sand | Grains. | ² Loc | cation: PL=Pore Lining, M=Matrix. |
| Hydric Soil | Indicators: | i | | | | | | Indicators for Problematic Hydric Soil |
| Histoso | (A1) | | Polyvalue Be | elow Sur | face (S8) | (MLRA 1 | 147, 148) | 2 cm Muck (A10) (MLRA 147) |
| Histic E | Histic Epipedon (A2) | | | Thin Dark Surface (S9) (MLRA 147, 148) | | | | Coast Prairie Redox (A16) |
| Black H | Black Histic (A3) | | | Loamy Mucky Mineral (F1) (MLRA 136) | | | | (MLRA 147, 148) |
| Hydroge | en Sulfide (A4) | | Loamy Gley | ed Matrix | x (F2) | | | Piedmont Floodplain Soils (F19) |
| Stratifie | d Layers (A5) | | Depleted Ma | atrix (F3) | · · | | | (MLRA 136, 147) |
| 2 cm M | 2 cm Muck (A10) (LRR N) | | | Surface | (F6) | | | Red Parent Material (F21) |
| Deplete | d Below Dark Surface | ow Dark Surface (A11) Depleted Dark Surface (F7) (outside MLRA 127, 1 | | | (outside MLRA 127, 147, 148) | | | |
| Thick D | ark Surface (A12) | Redox Depr | essions / | (F8) | | | Verv Shallow Dark Surface (F22) | |
| | Auckv Mineral (S1) | Iron-Mangar | iese Ma | sses (F12 | 2) (LRR N | l. | Other (Explain in Remarks) | |
| Sandy M | Heved Matrix (S4) | | MLRA 13 | 6) | | · · · | ., | |
| Sandy N Sandy C | | | I Imbria Surf | ace (F13 | 3) (MLRA | 122, 136 | 6) | ³ Indicators of hydrophytic vegetation and |
| Sandy M Sandy C Sandy F | Redox (S5) | | | | · · · · | , , | , | |
| Sandy M Sandy C Sandy F Stripped | Redox (S5) I Matrix (S6) | | Piedmont Fl | odplain | Soils (F1 | 19) (MLR/ | A 148) | wetland hydrology must be present, |
| Sandy M Sandy (Sandy F Stripped Dark Su | Redox (S5) I Matrix (S6) rface (S7) | | Piedmont Fl | oodplain Material | Soils (F1 (F21) (M I | 19) (MLR . L RA 127, | A 148) 147, 148) | wetland hydrology must be present, unless disturbed or problematic. |
| Sandy I Sandy C Sandy F Stripped Dark Su Restrictive | Redox (S5) I Matrix (S6) Irface (S7) Laver (if observed): | | Piedmont Fl | oodplain Material | Soils (F1 (F21) (M | 19) (MLR) L RA 127, | A 148) . 147, 148) | wetland hydrology must be present, unless disturbed or problematic. |
| Sandy M Sandy C Sandy F Stripped Dark Su Restrictive Type: | Redox (S5) I Matrix (S6) Irface (S7) Layer (if observed): | | Piedmont Fi | oodplain Material | Soils (F´ (F21) (M | 19) (MLR / LRA 127, | A 148) , 147, 148) | wetland hydrology must be present, unless disturbed or problematic. |

| U.S. Army Corps of Engineers |
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| WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region |
| See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R |

| Project/Site: Bellamy Property | | City/County: Clark | sville/Montgomery County | Sampling Date: 5/13/2022 |
|--|--------------------------------|---------------------------|-----------------------------|---------------------------|
| Applicant/Owner: Provident Realty Adviso | ors | | State: TN | Sampling Point: Wet D4 |
| Investigator(s): Marian Rubin & Kari Kennel - | Spectrum Environmental | Section, Township, Ra | ange: N/A | |
| Landform (hillside, terrace, etc.): Depression | n/toeslope Lo | cal relief (concave, con | vex, none): Concave | Slope (%): 0-2 |
| Subregion (LRR or MLRA): LRR N, MLRA 12 | 22 Lat: 36.607747° | Lo | ong: -87.238915° | Datum: |
| Soil Map Unit Name: Gu—Guthrie silt loam, (| 0 to 2 percent slopes, occ; | asionally ponded | NWI classifica | tion: None |
| Are climatic / hydrologic conditions on the site | typical for this time of year | r? Ves | X No (If no (| evolain in Remarks) |
| Are Vegetation . Soil . or Hydrol | ogy significantly dis | sturbed? Are "Norr | mal Circumstances" present? | Yes X No |
| Are Vegetation Soil or Hydrol | naturally proble | ematic? (If needed | d explain any answers in Re | marks) |
| SUMMARY OF FINDINGS – Attach | site man showing s | ampling point loc | ations transacts im | nortant features etc |
| | | | | |
| Hydrophytic Vegetation Present? | Yes X No | Is the Sampled Area | а | |
| Hydric Soil Present? | Yes X No | within a Wetland? | Yes X | No |
| Wetland Hydrology Present? | Yes X No | | | |
| Remarks: | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| HYDROLOGY | | | | |
| Wetland Hydrology Indicators: | | | Secondary Indicators | (minimum of two required) |
| Primary Indicators (minimum of one is require | ed; check all that apply) | | Surface Soil Crac | ks (B6) |
| Surface Water (A1) | True Aquatic Plants (| (B14) | Sparsely Vegetate | ed Concave Surface (B8) |
| High Water Table (A2) | Hydrogen Sulfide Od | lor (C1) | X Drainage Patterns | s (B10) |
| X Saturation (A3) | Oxidized Rhizospher | es on Living Roots (C3 |) Moss Trim Lines | (B16) |
| Water Marks (B1) | Presence of Reduce | d Iron (C4) | Dry-Season Wate | er Table (C2) |
| Sediment Deposits (B2) | Recent Iron Reduction | on in Tilled Soils (C6) | Crayfish Burrows | (C8) |
| Drift Deposits (B3) | Thin Muck Surface (| C7) | Saturation Visible | on Aerial Imagery (C9) |
| Algal Mat or Crust (B4) | Other (Explain in Rer | marks) | Stunted or Stress | ed Plants (D1) |
| Iron Deposits (B5) | | | Geomorphic Posi | tion (D2) |
| Inundation Visible on Aerial Imagery (B7) | 1 | | Shallow Aquitard | (D3) |
| Water-Stained Leaves (B9) | | | Microtopographic | Relief (D4) |
| Aquatic Fauna (B13) | | | | (D5) |
| Field Observations: | | ` | | |
| Surface Water Present? Yes | No X Depth (inch | es): | | |
| Water Table Present? Yes | No X Depth (inch | es): | and Hydrology Dresent? | Vac V Na |
| (includes expillent fringe) | | | and Hydrology Present? | |
| (includes capillary inlige) | nitoring well serial photos | previous inspections) | if available: | |
| Describe Recorded Data (stream gauge, mor | illoring weil, aeriai priolos, | , previous irispections), | | |
| | | | | |
| Remarks: | | | | |
| This data point was taken in the channel of W | /WC3 | | | |
| | | | | |
| | | | | |
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Sampling Point: Wet D4

| Tree Stratum (Plot size: 30) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|--------------------------------------|---------------------|----------------------|---------------------|--|
| 1. Liquidambar styraciflua | 15 | Yes | FAC | Number of Dominant Species |
| 2. Carya ovata | 10 | Yes | FACU | That Are OBL, FACW, or FAC: 5 (A) |
| 3. Ulmus americana | 10 | Yes | FACW | Total Number of Dominant |
| 4. | | | | Species Across All Strata: 9 (B) |
| 5 | | | | Percent of Dominant Species |
| 6 | | | | That Are OBL, FACW, or FAC: 55.6% (A/B) |
| 7 | | | | Prevalence Index worksheet: |
| | 35 | =Total Cover | | Total % Cover of: Multiply by: |
| 50% of total cover: | 18 20% | of total cover: | 7 | OBL species 25 x 1 = 25 |
| Sapling/Shrub Stratum (Plot size: 15 |) | | | FACW species 20 x 2 = 40 |
| 1. Liquidambar styraciflua | 5 | Yes | FAC | FAC species 35 x 3 = 105 |
| 2. Celtis laevigata | 5 | Yes | FACW | FACU species 60 x 4 = 240 |
| 3. Ligustrum sinense | 15 | Yes | FACU | UPL species 5 x 5 = 25 |
| 4. Symphoricarpos orbiculatus | 5 | Yes | FACU | Column Totals: 145 (A) 435 (B) |
| 5 | | | | Prevalence Index = B/A = 3.00 |
| δ. | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 3 | | | | X 2 - Dominance Test is >50% |
| Э | | | | X 3 - Prevalence Index is $\leq 3.0^{1}$ |
| | 30 | =Total Cover | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: | 15 20% | of total cover: | 6 | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 30) | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Commelina virginica | 5 | No | FACW | ¹ Indicators of hydric soil and wetland hydrology must be |
| 2. Rumex crispus | 10 | No | FAC | present, unless disturbed or problematic. |
| 3. Carex pedunculata | 25 | Yes | OBL | Definitions of Four Vegetation Strata: |
| 4. Ambrosia trifida | 5 | No | FAC | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 5. poa annua | 20 | Yes | FACU | more in diameter at breast height (DBH), regardless of |
| 6. Houstonia procumbens | 5 | No | UPL | height. |
| 7. Ligustrum sinense | 10 | No | FACU | Sapling/Shrub - Woody plants, excluding vines, less |
| 3 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (|
|) | | | | |
| 0 | | | | Herb – All herbaceous (non-woody) plants, regardless |
| 1 | | | | of size, and woody plants less than 3.28 ft tall. |
| | 80 | =Total Cover | | Woody Vine – All woody vines greater than 3.28 ft in |
| 50% of total cover: | 40 20% | of total cover: | 16 | height. |
| Woody Vine Stratum (Plot size: 5) | | | | |
| 1 | | . <u> </u> | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | Hydrophytic |
| | | =Total Cover | | Vegetation |
| | 200/ | of total cover | | Present? Yes X No |

| Depth (inches) Color 0-2 10Y 2-12 10Y 2-12 10Y | Matrix (moist) R 4/1 R 4/2 n, D=Deple | <u>98</u> <u>90</u> | Redo Color (moist) 7.5YR 4/6 7.5YR 4/6 | Dx Featur % 2 10 10 | res Type ¹ c c c | Loc ² m m Grains. | Texture Loamy/Clayey Loamy/Clayey | Remarks Prominent redox concentrations | |
|--|---|--------------------------------|---|---|---|---------------------------------------|---|--|--|
| (inches) Color 0-2 10YI 2-12 10YI 2-12 10YI 1Type: C=Concentration Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A3 2 cm Muck (A10) (L Depleted Below Da Thick Dark Surface Sandy Mucky Miner | (moist) R 4/1 R 4/2 n, D=Deple : | | Color (moist) 7.5YR 4/6 7.5YR 4/6 | | Type¹ c c | Loc ² m m Grains. | Texture Loamy/Clayey Loamy/Clayey | Remarks Prominent redox concentrations | |
| 0-2 10YI 2-12 10YI 2-12 10YI 10YI 10YI 10YI 11 10YI 11 11 11 11 11 11 11 11 11 11 11 11 11 | R 4/1 R 4/2 | | 7.5YR 4/6 7.5YR 4/6 | 2 10 | | Grains. | Loamy/Clayey Loamy/Clayey | Prominent redox concentrations | |
| 2-12 10YI | R 4/2 | 90 etion, RM | 7.5YR 4/6 | | | Grains. | Loamy/Clayey | Prominent redox concentrations | |
| ¹ Type: C=Concentration Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A2 2 cm Muck (A10) (L Depleted Below Da Thick Dark Surface Sandy Mucky Miner | n, D=Deple | | I=Reduced Matrix, N | 1S=Mask | | Grains. | 2Locat | tion: PL=Pore Lining, M=Matrix. | |
| ¹ Type: C=Concentratio Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A2 2 cm Muck (A10) (L Depleted Below Da Thick Dark Surface Sandy Mucky Miner | n, D=Deplo | etion, RM | I=Reduced Matrix, N | 1S=Mask | | Grains. | 2Locat | tion: PL=Pore Lining, M=Matrix. | |
| ¹ Type: C=Concentration Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A2 2 cm Muck (A10) (L Depleted Below Da Thick Dark Surface Sandy Mucky Miner | n, D=Deple | etion, RM | I=Reduced Matrix, N | | | Grains. | 2Locat | tion: PL=Pore Lining, M=Matrix. | |
| ¹ Type: C=Concentration Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A2 2 cm Muck (A10) (L Depleted Below Da Thick Dark Surface Sandy Mucky Miner | n, D=Deple | etion, RM | I=Reduced Matrix, N | /S=Mask | | Grains. | ² Locat | tion: PL=Pore Lining, M=Matrix. | |
| ¹ Type: C=Concentration Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A2 2 cm Muck (A10) (L Depleted Below Da Thick Dark Surface Sandy Mucky Miner | n, D=Deple : | etion, RM | I=Reduced Matrix, N | /IS=Mask | ed Sand | Grains. | ² Locat | tion: PL=Pore Lining, M=Matrix. | |
| ¹ Type: C=Concentratio Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A2 2 cm Muck (A10) (L Depleted Below Da Thick Dark Surface Sandy Mucky Miner | n, D=Depl | etion, RM | I=Reduced Matrix, N | /IS=Mask | ed Sand | Grains. | ² Locat | tion: PL=Pore Lining, M=Matrix. | |
| Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A2 2 cm Muck (A10) (L Depleted Below Da Thick Dark Surface Sandy Mucky Miner | : : | | | | | Oranio. | Ecca | | |
| Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A3 2 cm Muck (A10) (L Depleted Below Da Thick Dark Surface Sandy Mucky Miner | | | | | | | In | dicators for Problematic Hydric Soils | |
| Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A 2 cm Muck (A10) (L Depleted Below Da Thick Dark Surface Sandy Mucky Miner | | | Polvvalue B | elow Sur | face (S8) | (MLRA 1 | 147. 148) | 2 cm Muck (A10) (MLRA 147) | |
| Black Histic (A3) Hydrogen Sulfide (# Stratified Layers (A 2 cm Muck (A10) (L Depleted Below Da Thick Dark Surface Sandy Mucky Miner | 2) | | Thin Dark S | urface (S | (00) (MI R | A 147. 14 | ,, | Coast Prairie Redox (A16) | |
| Hydrogen Sulfide (# Stratified Layers (A 2 cm Muck (A10) (L Depleted Below Da Thick Dark Surface Sandy Mucky Miner | -) | | | ky Miner: | al (F1) (M | II RA 136 | | (MI RA 147 148) | |
| Stratified Layers (A 2 cm Muck (A10) (L Depleted Below Da Thick Dark Surface Sandy Mucky Miner | ۸ ۸) | | | | 4 (E2) | | <i>'</i> | Diadmont Floodplain Spile (E10) | |
| 2 cm Muck (A10) (L Depleted Below Da Thick Dark Surface Sandy Mucky Miner | 74) 5) | | Loaniy Gley | eu Main | K (I Z) | | | | |
| Depleted Below Da Thick Dark Surface Sandy Mucky Miner | | | Depieted IV | Surface | (E6) | | | Red Parent Material (E21) | |
| Thick Dark Surface Sandy Mucky Miner | -nn N) | (111) | | | (FO) | | _ | | |
| Sandy Mucky Miner | Depleted Below Dark Surface (A11) | | | | | | Very Shallow Dark Surface (E22) | | |
| Sandy Mucky Mine | Thick Dark Surface (A12) | | | | (F8) | | . – | Other (Evploin in Remarka) | |
| | rai (S1) | | | nese Mas | sses (F12 | | , | Other (Explain in Remarks) | |
| Sandy Gleyed Matr | IX (54) | | MLRA 13 | b) | | | . 3. | | |
| Sandy Redox (S5) | | | Umbric Surf | Umbric Surface (F13) (MLRA 122, 136) | | | | ndicators of hydrophytic vegetation and | |
| Stripped Matrix (S6 |) | | Piedmont F | Piedmont Floodplain Soils (F19) (MLRA 148) | | | A 148) | wetland hydrology must be present, | |
| Dark Surface (S7) | | | Red Parent | Material | (F21) (M I | LRA 127, | , 147, 148) | unless disturbed or problematic. | |
| Restrictive Layer (if ot | oserved): | | | | | | | | |
| Туре: | | | | | | | | | |
| Depth (inches): | | | | | | | Hydric Soil Pre | esent? Yes X No | |

| U.S. Army Corps of Engineers |
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| WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region |
| See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R |

| Project/Site: Bellamy Property | | City/County: 0 | Clarksville/Montgomery Cou | Inty Sampling Date: 5/13/2022 |
|---|-------------------------------|------------------------|-------------------------------|---------------------------------|
| Applicant/Owner: Provident Realty Advis | ors | | State: | TN Sampling Point: Wet D5 |
| Investigator(s): Marian Rubin & Kari Kennel | - Spectrum Environmental | Section. Township | . Range: N/A | |
| Landform (billside, torrace, etc.): Depressi | | cal relief (concave | | |
| Landroff (filliside, terrace, etc.). Depression | | ical relier (concave, | convex, none). <u>Concave</u> | Slope (%): <u>0-2</u> |
| Subregion (LRR or MLRA): LRR N, MLRA 1 | 22 Lat: 36.607584° | | Long: -87.238395° | Datum: |
| Soil Map Unit Name: Gu—Guthrie silt loam, | 0 to 2 percent slopes, occa | asionally ponded | NWI clas | sification: None |
| Are climatic / hydrologic conditions on the site | typical for this time of year | r? Ye | s <u>×</u> No(I | f no, explain in Remarks.) |
| Are Vegetation, Soil, or Hydro | logysignificantly dis | sturbed? Are "I | Normal Circumstances" pre | sent? Yes X No |
| Are Vegetation, Soil, or Hydro | ologynaturally proble | ematic? (If ne | eded, explain any answers | in Remarks.) |
| SUMMARY OF FINDINGS – Attach | site map showing s | ampling point | locations, transects, | , important features, etc. |
| Hydrophytic Vegetation Present? | Yes X No | Is the Sampled | Area | |
| Hydric Soil Present? | Yes X No | within a Wetlan | d? Yes | X No |
| Wetland Hydrology Present? | Yes X No | | — | |
| Remarks: | | <u> </u> | | |
| | | | | |
| HYDROLOGY | | | | |
| Wetland Hydrology Indicators: | | | Secondary Indica | ators (minimum of two required) |
| Primary Indicators (minimum of one is require | ed; check all that apply) | | Surface Soil | Cracks (B6) |
| Surface Water (A1) | True Aquatic Plants | (B14) | Sparsely Veg | getated Concave Surface (B8) |
| High Water Table (A2) | Hydrogen Sulfide Od | lor (C1) | X Drainage Pa | tterns (B10) |
| X Saturation (A3) | Oxidized Rhizospher | res on Living Roots | (C3) Moss Trim L | ines (B16) |
| Water Marks (B1) | Presence of Reduce | d Iron (C4) | Dry-Season | Water Table (C2) |
| Sediment Deposits (B2) | Recent Iron Reduction | on in Tilled Soils (Co | 6) X Crayfish Bur | rows (C8) |
| Drift Deposits (B3) | Thin Muck Surface (| C7) | Saturation V | isible on Aerial Imagery (C9) |
| Algal Mat or Crust (B4) | Other (Explain in Rer | marks) | Stunted or S | tressed Plants (D1) |
| Iron Deposits (B5) | | | Geomorphic | Position (D2) |
| Inundation Visible on Aerial Imagery (B7 | ') | | Shallow Aqu | itard (D3) |
| Water-Stained Leaves (B9) | | | Microtopogra | aphic Relief (D4) |
| Aquatic Fauna (B13) | | | X FAC-Neutral | Test (D5) |
| Field Observations: | | | | |
| Surface Water Present? Yes | No X Depth (inch | ies): | | |
| Water Table Present? Yes | No X Depth (inch | ies): | | |
| Saturation Present? Yes X | No Depth (inch | es): 0 | Netland Hydrology Preser | nt? Yes <u>X</u> No |
| (includes capillary fringe) | | | | |
| Describe Recorded Data (stream gauge, mo | nitoring well, aerial photos, | , previous inspectio | ns), if available: | |
| Dementar | | | | |
| Remarks: This data point was taken in the channel of V | WWC3 | | | |
| | ***** | | | |
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Sampling Point: Wet D5

| Tree Stratum (Plot size: 30) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet | |
|--------------------------------------|----------------------|----------------------|---------------------|--|------------------|
| 1 Asimina triloba | 25 | Yes | FAC | | |
| 2 Quercus palustris | 20 | Yes | FACW | Number of Dominant Species | (A) |
| 3 Celtis laevigata | 15 | Yes | FACW | | (/ () |
| 4. Ulmus americana | 10 | No | FACW | Total Number of DominantSpecies Across All Strata:12 | (B) |
| 5 | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3% | (A/B) |
| 7. | | | | Prevalence Index worksheet: | () |
| | 70 | =Total Cover | | Total % Cover of: Multiply | bv: |
| 50% of total cover: | 35 20% | of total cover: | 14 | OBL species 45 $x 1 = 4$ | 45 |
| Sapling/Shrub Stratum (Plot size: 15 |) | | | FACW species $65 \times 2 = 1$ | 30 |
| 1. Fraxinus pennsylvanica | , [′] 10 | Yes | FACW | FAC species 35 x 3 = 1 | 05 |
| 2. Liaustrum sinense | 10 | Yes | FACU | FACU species 25 x 4 = 1 | 00 |
| 3. | | | | UPL species 0 x 5 = | 0 |
| 4. | | | | Column Totals: 170 (A) 3 | 80 (B) |
| 5. | | | | $\frac{1}{2}$ | 24 (=) |
| 6 | · | | | Hydrophytic Vegetation Indicators: | <u> </u> |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetatio | n |
| 8 | | | | X 2 - Dominance Test is >50% | |
| Q | | | | $\frac{1}{2}$ = Dominance rest is >50% | |
| | 20 | -Total Cover | | 4 - Morphological Adaptations ¹ (Provide | supporting |
| 50% of total cover: | 10 20% | of total cover: | 4 | data in Remarks or on a separate she | et) |
| Herb Stratum (Plot size: 30) | | | | Problematic Hydrophytic Vegetation ¹ (E) | (plain) |
| 1. Sagittaria latifolia | 10 | Yes | OBL | ¹ Indicators of hydric soil and watland hydrolo | av must be |
| 2. Chasmanthium latifolium | 10 | Yes | FACU | present, unless disturbed or problematic. | gy must be |
| 3. Leersia oryzoides | 10 | Yes | OBL | Definitions of Four Vegetation Strata: | |
| 4. Glvceria striata | 15 | Yes | OBL | Tree - Woody plants excluding vines 3 in (| 7.6 cm) or |
| 5. Cardamine hirsuta | 5 | No | FACU | more in diameter at breast height (DBH), reg | ardless of |
| 6. Scutellaria lateriflora | 10 | Yes | FACW | height. | |
| 7. Cephalanthus occidentalis | 10 | Yes | OBL | Sanling/Shrub Woody plants, excluding vi | nos loss |
| 8. | | | | than 3 in. DBH and greater than or equal to 3 m) tall. | 3.28 ft (|
| 9 | · | | | | |
| 10 | · | | | Herb – All herbaceous (non-woody) plants, r of size, and woody plants less than 3.28 ft ta | egardless II. |
| 11. | | Tatal Cause | | | 0.00.00 |
| | 70 | | 4.4 | height. | 3.28 it in |
| 50% of total cover: | 35 20% | of total cover: | 14 | | |
| Woody Vine Stratum (Plot size: 5) | 40 | | 54.0 | | |
| | 10 | Yes | FAC | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5 | | | | Hydrophytic | |
| | 10 | =Total Cover | | Vegetation | |
| | E 200/ | of total cover | 2 | Present? Yes X No | |

| Profile Desc | cription: (Describe t | the dep | oth needed to docu | iment th | e indicat | or or co | nfirm the abse | ence of indicators.) |
|--|-----------------------|-------------|---------------------|---------------|-------------------|------------------------------|----------------------------------|---|
| Depth | Matrix | | Redo | x Featur | es | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-2 | 10YR 4/1 | 95 | 7.5YR 4/6 | 5 | С | ey | | |
| 2-12 | 10YR 5/1 | 85 | 7.5YR 4/6 | 15 | с | m | Loamy/Clay | Prominent redox concentrations |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | -tion DM | | | | Croine | 21.0 | |
| Hydric Soil | Indicators | etion, Kivi | =Reduced Matrix, iv | IS=IVIASK | lea Sanu | Grains. | LU | Deation: PL=Pore Lining, M=Matrix. |
| Histosol | (A1) | | Polyvalue B | elow Sur | face (S8) | (MLRA | 147, 148) | 2 cm Muck (A10) (MLRA 147) |
| Histic Fr | ninedon (A2) | | Thin Dark S | urface (S | (MI R. | △ 147. 1/ | 141, 140, | Coast Prairie Redox (A16) |
| Black Hi | istic (A3) | | Loamy Much | v Miner | al (F1) (M | I RA 136 | -0) S) | (MI.RA 147, 148) |
| Hydroge | n Sulfide (A4) | | Loamy Glev | ed Matrix | x (F2) | | , | Piedmont Floodplain Soils (F19) |
| Stratified Lavers (A5) X Depleted Matrix (F3) | | | | | | | (MLRA 136, 147) | |
| 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) | | | | | | | | Red Parent Material (F21) |
| Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) | | | | | | (outside MLRA 127, 147, 148) | | |
| Thick Dark Surface (A12) X Redox Depressions (F8) | | | | | | | Very Shallow Dark Surface (F22) | |
| Sandy Mucky Mineral (S1) Iron-Manganese Masses (F12) (LRR | | | | |) (LRR N | 1. | Other (Explain in Remarks) | |
| Sandy G | Sleved Matrix (S4) | | MLRA 13 | 5) | , | / (| , | |
| Sandy R | Redox (S5) | | Umbric Surf | , ace (F13 | 3) (MLRA | 122, 136 | 5) | ³ Indicators of hydrophytic vegetation and |
| Stripped | Matrix (S6) | | Piedmont Fl | oodplain | Soils (F1 | 9) (MLR | , A 148) | wetland hydrology must be present, |
| Dark Surface (S7) Red Parent Material (F21) (MLRA 12 | | | | | _RA 127 | , 147, 148) | unless disturbed or problematic. | |
| Restrictive | Layer (if observed): | | | | | | | |
| Type: | | | | | | | | |
| Depth (ii | nches): | | | | | | Hydric Soil | Present? Yes X No |
| Remarks: | | | | | | | | |
| | | | | | | | | |

| U.S. Army Corps of Engineers |
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| WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region |
| See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R |

OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

| Project/Site: Bellamy Property | | City/County: Clarks | ville/Montgomery County Sa | mpling Date: <u>5/13/2022</u> |
|--|---|---------------------------|-------------------------------|-------------------------------|
| Applicant/Owner: Provident Realty Advis | ors | | State: TN Sa | mpling Point: Wet D6 |
| Investigator(s): Marian Rubin & Kari Kennel - | Spectrum Environmental | Section, Township, Ran | ae: N/A | |
| Landform (hillside, terrace, etc.): Depressio | | al relief (concave, conve | av none): Concave | Slope (%): 0-2 |
| Cubraging (LDD or MLDA): LDD N. MLDA 1 | | | | |
| Subregion (LRR or MLRA): LRR N, MLRA 1 | 22 Lat: <u>36.607337°</u> | | g: -87.237875° | |
| Soil Map Unit Name: Gu—Guthrie silt loam, | 0 to 2 percent slopes, occa | sionally ponded | NWI classification: | None |
| Are climatic / hydrologic conditions on the site | typical for this time of year | ? Yes X | No (If no, expla | ain in Remarks.) |
| Are Vegetation, Soil, or Hydro | logy significantly dis | turbed? Are "Norma | I Circumstances" present? | Yes X No |
| Are Vegetation, Soil, or Hydro | logynaturally proble | matic? (If needed, | explain any answers in Remarl | ks.) |
| SUMMARY OF FINDINGS – Attach | site map showing sa | ampling point loca | tions, transects, impor | tant features, etc. |
| Hydrophytic Vegetation Present? | Yes X No | Is the Sampled Area | | |
| Hydric Soil Present? | Yes X No | within a Wetland? | Yes X No | ٥ |
| Wetland Hydrology Present? | Yes X No | | | |
| Remarks: | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| HYDROLOGY | | | | |
| Wetland Hydrology Indicators: | | | Secondary Indicators (min | imum of two required) |
| Primary Indicators (minimum of one is requir | ed; check all that apply) | | Surface Soil Cracks (E | 36) |
| Surface Water (A1) | True Aquatic Plants (| B14) | Sparsely Vegetated C | oncave Surface (B8) |
| High Water Table (A2) | Hydrogen Sulfide Odd | or (C1) | X Drainage Patterns (B1 | 0) |
| X Saturation (A3) | Oxidized Rhizosphere | es on Living Roots (C3) | Moss Trim Lines (B16 |) |
| Water Marks (B1) | Presence of Reduced | I Iron (C4) | Dry-Season Water Ta | ble (C2) |
| Sediment Deposits (B2) | Recent Iron Reductio | n in Tilled Soils (C6) | X Crayfish Burrows (C8) |) |
| Drift Deposits (B3) | Thin Muck Surface (C | :7) | Saturation Visible on A | Aerial Imagery (C9) |
| Algal Mat or Crust (B4) | Other (Explain in Ren | narks) | Stunted or Stressed P | Plants (D1) |
| Iron Deposits (B5) | | | Geomorphic Position | (D2) |
| Inundation Visible on Aerial Imagery (B7 |) | | Shallow Aquitard (D3) | |
| Water-Stained Leaves (B9) | | | Microtopographic Reli | ef (D4) |
| Aquatic Fauna (B13) | | | FAC-Neutral Test (D5 |) |
| Field Observations: | | | | |
| Surface Water Present? Yes | No X Depth (inche | es): | | |
| Water Table Present? Yes | No X Depth (inche | es): | | . |
| Saturation Present? Yes X | No Depth (inche | es): <u>0</u> Wetlar | id Hydrology Present? | Yes <u>×</u> No |
| (includes capillary fringe) | a tradiciona de la contra la contra de la c | | er en Markelan | |
| Describe Recorded Data (stream gauge, mo | nitoring well, aerial photos, | previous inspections), ir | avallable: | |
| | | | | |
| Remarks: | | | | |
| This data point was taken in the channel of V | VWC3 | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: Wet D6

| | Absolute | Dominant | Indicator | | | | | | |
|---|-------------|-----------------|-----------|---|--|--|--|--|--|
| Tree Stratum (Plot size: 30) | % Cover | Species? | Status | Dominance Test worksheet: | | | | | |
| 1. Liquidambar styraciflua | 25 | Yes | FAC | Number of Dominant Species | | | | | |
| 2. Fraxinus nigra | 15 | Yes | FACW | That Are OBL, FACW, or FAC: <u>6</u> (A) | | | | | |
| 3. Acer rubrum 4. | 10 | Yes | FAC | Total Number of Dominant Species Across All Strata: 7 (B) | | | | | |
| 5. | | | | Percent of Dominant Species | | | | | |
| 6. | | | | That Are OBL, FACW, or FAC: 85.7% (A/B) | | | | | |
| 7 | | | | Prevalence Index worksheet: | | | | | |
| | 50 | =Total Cover | | Total % Cover of: Multiply by: | | | | | |
| 50% of total cover: 25 | 20% | of total cover: | 10 | OBL species <u>5</u> x 1 = <u>5</u> | | | | | |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species 15 x 2 = 30 | | | | | |
| 1. acer rubrum | 10 | Yes | FAC | FAC species 85 x 3 = 255 | | | | | |
| 2. Liquidambar styraciflua | 15 | Yes | FAC | FACU species x 4 = 160 | | | | | |
| 3 | | | | UPL species 0 x 5 = 0 | | | | | |
| 4 | | | | Column Totals: <u>145</u> (A) <u>450</u> (B) | | | | | |
| 5 | | | | Prevalence Index = B/A =3.10 | | | | | |
| 6 | | | | Hydrophytic Vegetation Indicators: | | | | | |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation | | | | | |
| 8. | | | | X 2 - Dominance Test is >50% | | | | | |
| 9. | | | | 3 - Prevalence Index is ≤3.0 ¹ | | | | | |
| | 25 | =Total Cover | | 4 - Morphological Adaptations ¹ (Provide supporting | | | | | |
| 50% of total cover: 13 | 20% | of total cover: | 5 | data in Remarks or on a separate sheet) | | | | | |
| Herb Stratum (Plot size: 30) | | | | Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | |
| 1. Solidago canadensis | 10 | No | FACU | ¹ Indiantara of hydria and untland hydrology must be | | | | | |
| 2. Sagittaria latifolia | 5 | No | OBL | present, unless disturbed or problematic. | | | | | |
| 3. Plantago rugelii | 10 | No | FACU | Definitions of Four Vegetation Strata: | | | | | |
| 4. Bromus arvensis | 20 | Yes | FACU | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or | | | | | |
| 5. Microstegium vimineum | 25 | Yes | FAC | more in diameter at breast height (DBH), regardless of height. | | | | | |
| 6. | | | | | | | | | |
| 7. | | | | Sapling/Shrub – Woody plants, excluding vines, less | | | | | |
| 8. | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 | | | | | |
| 9. | | | | m) tall. | | | | | |
| 10. | | | | Herb – All herbaceous (non-woody) plants, regardless | | | | | |
| 11. | | | | of size, and woody plants less than 3.28 ft tall. | | | | | |
| | 70 | =Total Cover | | Woody Vine – All woody vines greater than 3.28 ft in | | | | | |
| 50% of total cover: 35 | 20% | of total cover: | 14 | height. | | | | | |
| Woody Vine Stratum (Plot size: 5) | | | | | | | | | |
| 1. | | | | | | | | | |
| 2. | | | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |
| | | =Total Cover | | Hydrophytic | | | | | |
| 50% of total cover: | 20% | of total cover: | | Present? Yes X No | | | | | |
| | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separa | ate sheet.) | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |

| Profile Des | cription: (Describe t | to the dep | oth needed to docu | ument th | ne indica | tor or co | onfirm the abse | ence of indicators.) | |
|--|-----------------------|---------------|--------------------|-------------------|-------------------|--------------------------------------|---|--|--|
| Depth | Matrix | | Redo | x Featur | res | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | |
| 0-6 | 10YR 5/2 | 95 | 7.5YR 4/6 | 5 | с | m | Loamy/Clay | /ey | |
| 6-12 | 10YR 5/1 | 90 | 7.5YR 4/6 | 20 | с | m | Loamv/Clav | vev Prominent redox concentrations | |
| | | | | | | | | | |
| | · | | | | · | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |
| | · | | | | · | | | | |
| | | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Depl | etion, RM | =Reduced Matrix, M | 1S=Mask | ked Sand | Grains. | ² Lc | ocation: PL=Pore Lining, M=Matrix. | |
| Hydric Soil | Indicators: | | | | | | | Indicators for Problematic Hydric Soils ³ : | |
| Histosol (A1) Polyvalue Below Surface (S8) (MLRA | | | | | (MLRA | 147, 148) 2 cm Muck (A10) (MLRA 147) | | | |
| Histic E | Thin Dark S | urface (S | 39) (MLR | A 147, 14 | 48) | Coast Prairie Redox (A16) | | | |
| Black H | istic (A3) | Loamy Mucl | ky Minera | al (F1) (N | ILRA 136 | š) | (MLRA 147, 148) | | |
| Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) | | | | | | Piedmont Floodplain Soils (F19) | | | |
| Stratifie | d Layers (A5) | X Depleted Ma | atrix (F3) | 1 | | | (MLRA 136, 147) | | |
| 2 cm Mu | uck (A10) (LRR N) | Redox Dark | Surface | (F6) | | | Red Parent Material (F21) | | |
| Deplete | d Below Dark Surface | Depleted Da | ark Surfa | ce (F7) | | | (outside MLRA 127, 147, 148) | | |
| Thick Da | ark Surface (A12) | X Redox Depr | essions | (F8) | | | Very Shallow Dark Surface (F22) | | |
| Sandy N | Iron-Mangar | nese Ma: | sses (F12 | 2) (LRR N | ١, | Other (Explain in Remarks) | | | |
| Sandy Gleved Matrix (S4) MLRA 136) | | | | | | | | | |
| Sandy Redox (S5) Umbric Surface (F13) (MLRA 122. 13 | | | | | | | š) | ³ Indicators of hydrophytic vegetation and | |
| Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (ML | | | | | | 19) (MLR | A 148) wetland hydrology must be present, | | |
| Dark Surface (S7) Red Parent Material (F21) (MLRA 12) | | | | | | LRA 127 | , 147, 148) | unless disturbed or problematic. | |
| Restrictive | Layer (if observed): | | | | | | | | |
| Type: | | | | | | | | | |
| Depth (i | nches): | | | | | | Hydric Soil | Present? Yes X No | |
| Remarks: | · | | | | | | • - | | |
| Romanto. | | | | | | | | | |
| | | | | | | | | | |